# Iowa Early Learning Standards

## 2012

Revision led by Early Childhood Iowa through funding from the Early Childhood Advisory Council grant

# Table of Contents


Iowa's Vision for Young Children ..... 1
Writing Committees ..... 2

I. INTRODUCTION ..... 5
Why Does Early Learning Matter? ..... 5
What are Early Learning Standards? ..... 5
History of the Iowa Early Learning Standards ..... 6
What is Different in the 2012 Iowa Early Learning Standards? ..... 7
Guiding Principles ..... 8
Components of the Iowa Early Learning Standards ..... 10
Alignment of the Iowa Early Learning Standards to the K-12 Iowa Core ..... 10

II. ESSENTIAL CONSIDERATIONS ..... 12
The Importance of Children's Health and Well-Being ..... 12
The Importance of Caring Adults and Communities ..... 13
The Importance of Embracing Diversity ..... 14
The Importance of Play in Learning ..... 16
The Role of Technology and Interactive Media ..... 19
The Role of Assessment ..... 20
Understanding School Readiness ..... 22

III. INFANT and TODDLER Early Learning Standards ..... 28
Area 1: Physical Well-Being and Motor Development ..... 29
1.1 Healthy and Safe Living ..... 29
1.2 Large Motor Development ..... 32
1.3 Small Motor Development ..... 35
Area 2: Approaches to Learning ..... 36
2.1 Curiosity and Initiative ..... 37
2.2 Engagement and Persistence ..... 39
2.3 Reasoning and Problem Solving ..... 41
2.4 Play and Senses ..... 43
Area 3: Social and Emotional Development ..... 44
3.1 Self ..... 45
3.2 Self-Regulation ..... 48
3.3 Relationships with Adults ..... 51
3.4 Relationships with Children ..... 54
Area 4: Communication, Language, and Literacy ..... 55
4.1 Language Understanding and Use ..... 56
4.2 Early Literacy ..... 60
4.3 Early Writing ..... 62
Area 5: Mathematics and Science ..... 63
5.1 Comparison and Number ..... 64
5.2 Patterns ..... 66
5.3 Shapes and Spatial Relationships ..... 68
5.4 Scientific Reasoning ..... 70

Area 6: Creative Arts ..... 71
6.1 Art ..... 72
6.2 Music, Rhythm, and Movement ..... 74
6.3 Dramatic Play ..... 76
Area 7: Social Studies ..... 77
7.1 Awareness of Family and Community ..... 78
7.2 Awareness of Culture ..... 80
7.3 Exploration of the Environment ..... 82

IV. PRESCHOOL Early Learning Standards ..... 83
Area 8: Physical Well-Being and Motor Development ..... 85
8.1 Healthy and Safe Living ..... 85
8.2 Large Motor Development ..... 88
8.3 Small Motor Development ..... 91
Area 9: Approaches to Learning ..... 92
9.1 Curiosity and Initiative ..... 93
9.2 Engagement and Persistence ..... 96
9.3 Reasoning and Problem Solving ..... 99
9.4 Play and Senses ..... 101
Area 10: Social and Emotional Development ..... 103
10.1 Self ..... 104
10.2 Self-Regulation ..... 106
10.3 Relationships with Adults ..... 108
10.4 Relationships with Children ..... 110
Area 11: Communication, Language, and Literacy ..... 112
11.1 Language Understanding and Use ..... 112
11.2 Early Literacy ..... 116
11.3 Early Writing ..... 119
Area 12: Mathematics and Science ..... 121
12.1 Comparison and Number ..... 121
12.2 Patterns ..... 123
12.3 Shapes and Spatial Reasoning ..... 125
12.4 Scientific Reasoning ..... 127
12.5 Scientific Investigations and Problem Solving ..... 130
12.6 Measurement ..... 132
Area 13: Creative Arts ..... 133
13.1 Art ..... 134
13.2 Music, Rhythm, and Movement ..... 136
13.3 Dramatic Play ..... 138
Area 14: Social Studies ..... 141
14.1 Awareness of Family and Community ..... 141
14.2 Awareness of Culture ..... 144
14.3 Awareness of the Relationship between People and the Environment in which They Live ..... 146
14.4 Awareness of Past ..... 148

V. ALIGNMENT TO THE IOWA CORE ..... 150

## Iowa's Vision for Young Children

**Every child, beginning at birth, will be healthy and successful.**

To Iowa's families with young children, and our early care, health, and education professionals:

We are very pleased to share this updated and revised version of Iowa's Early Learning Standards with you. First developed in 2006 in response to the federal requirements of the Good Start, Grow Smart Initiative, the Iowa Early Learning Standards have assisted countless parents, teachers, administrators, policymakers, and early care, health, and education professionals in understanding and supporting children's learning and development.

As years pass and times change, high quality documents require a review to identify any necessary updates incorporating new information and research. The 2012 revision of the Iowa Early Learning Standards was included as a priority in the Head Start Early Childhood Advisory Council federal grant, received by Iowa through the Early Childhood Iowa Office at the Iowa Department of Management. In 2011, a subcontract to facilitate this revision and other professional development work was granted to the Iowa Association for the Education of Young Children (Iowa AEYC).

To make the review process happen, a widely diverse group of over fifty stakeholders was invited to be part of the planning, review, and revision writing team. Thanks to their diligent efforts, we were able to meet our timeline expectations, while at the same time ensuring this new document is grounded in research-based practices, known in the early care and education field as developmentally appropriate practice. We especially appreciate the leadership Tammy Bormann provided to this project, the exceptional facilitation work provided by Kevin Pokorny, and the support and assistance of Dara Madigan and other staff at the Iowa AEYC.

Early Childhood Iowa formally adopted the revised Iowa Early Learning Standards in January 2013. Early Childhood Iowa (ECI) is an alliance of stakeholders in early care, health, and education serving children birth through age five in Iowa. The initiative's purpose is to be a catalyst for the continued development of a comprehensive, integrated early care, health, and education system. Recognizing the critical importance of the early years, ECI seeks to work, at both the state and local levels, to improve the efficiency and effectiveness of services provided to young children and their families.

The Iowa Early Learning Standards are for everyone who loves, cares for, and educates young children. The standards can be used as a resource to help support and enhance children's learning and development, as well as inform policy and decision makers. In addition, the standards can be a tool to help share information among families, caregivers, child care professionals, family support professionals, health care professionals, teachers, and others who care for or work with children. We hope the Iowa Early Learning Standards add to your understanding of the young children whose lives you impact every day. We welcome your feedback as you implement these standards in your work with young children.

Respectfully,

Sheila Hansen

Sheila Hansen, Child & Family Policy Center
Co-chairs, Early Childhood Iowa Alliance

Shanell Wagler

Shanell Wagler, Iowa Department of Management

# Writing Committees

## 2012 Planning Committee

*Jeff Anderson*, Early Childhood Iowa System Coordinator, Iowa Department of Management
*Tammy Bormann*, Early Childhood Iowa Professional Development Coordinator, Iowa Association for the Education of Young Children
*Chad Dahm*, Bureau Chief, Bureau of Child Care, Iowa Department of Human Services
*Gretchen Hageman*, Bureau Chief, Bureau of Family Health, Iowa Department of Public Health
*Julie Ingersoll,* Child Care and CCR&R Team Lead*,* Iowa Department of Human Services
*Barb Merrill*, Executive Director, Iowa Association for the Education of Young Children
*Mary Schertz*, Consultant, Iowa Department of Education
*Christi Regan*, Head Start Director, Hawkeye Area Community Action Project
*Laurabelle Sherman-Proehl,* Administrative Consultant, Iowa Department of Education
*Catherine Swackhamer*, Early Childhood Education Specialist 0-5, ICF International

## Facilitators of 2012 IELS Review

*Tammy Bormann*, Early Childhood Iowa Professional Development Coordinator, Iowa Association for the Education of Young Children
*Dara Madigan*, T.E.A.C.H. Counseling Specialist, Iowa Association for the Education of Young Children
*Barb Merrill*, Executive Director, Iowa Association for the Education of Young Children
*Kevin Pokorny*, Owner/Consultant, Pokorny Consulting

## 2012 Review and Writing Committee

*Mary Ann Adams*, Family and Consumer Sciences Consultant, Iowa Department of Education
*Mary Airy*, Early Childhood Consultant, Grant Wood Area Education Agency
*Heather Anderson*, Department Coordinator and Instructor in Early Childhood Education, Scott Community College
*Tammy Bormann*, Early Childhood Iowa Professional Development Coordinator, Iowa Association for the Education of Young Children
*Dianne Casto*, Retired, Head Start Director
*Jacqueline K. Crawford*, Education Professor, Simpson College
*Cathy Eddy*, ECE Consultant, Retired from Heartland Area Education Agency 11
*Chris Evan-Schwartz*, Teacher, Cedar Rapids Metro High School
*Kristy Fenwick*, Dubuque County Parents as Teachers, Four Oaks
*Tim Fitzpatrick*, FaDSS Program Manager, Department of Human Rights
*Gabriela Gallentine*, Director, Conmigo Early Education Center
*Catherine Wilson Gillespie*, Co-Chair of Teaching and Learning, Drake University
*Amy Gulling*, Teacher, Science Center of Iowa
*Sally Hartley*, Early Childhood Special Education Teacher/Consultant, Northwest Area Education Agency
*Mary Janssen*, Director, Child Care Resource & Referral of Northeast Iowa
*Delora Jespersen Hade*, Professor, Des Moines Area Community College
*Kimberly Johnson*, Education Consultant, Iowa Department of Education
*Brian Kingrey*, Kindergarten Teacher, Sigourney Community Schools
*Kathy Hall*, Family & Education Support Coordinator, MATURA Head Start
*Sheila Hansen*, Every Child Counts Director, Child and Family Policy Center
*Gayle Luze*, Associate Professor, Iowa State University

*Dara Madigan*, T.E.A.C.H. Counseling Specialist, Iowa Association for the Education of Young Children
*Pam Mahoney*, Director, Stepping Stones Child Care Center
*Pat McReynolds*, Director, Wapello/Mahaska Early Childhood Iowa Board
*Barb Merrill*, Executive Director, Iowa Association for the Education of Young Children
*Rae Miller*, Registered Nurse, Child Health Specialty Clinics Early ACCESS State Liaison
*Deb Molitor*, Early Childhood Consultant, Area Education Agency 267
*Melanie Nollsch*, Professor, Kirkwood Community College
*Kristie Ostrander*, Program Coordinator School-Home Connection, Four Oaks
*Sherri Peterson*, Lead Teacher and Early Childhood Instructional Coach, Waterloo Community Schools
*Dawn Powers*, Training Specialist, Child Care Resource & Referral of Southwest Iowa
*Malisa Rader*, Family Life Program Specialist, Iowa State University Extension and Outreach
*Christi Regan*, Head Start Director, Hawkeye Area Community Action Project
*Tom Rendon*, Head Start State Collaboration Office, Iowa Department of Education
*Mykala Robinson*, SWVI Regulatory Program Manager, Iowa Department of Human Services
*Judy Russell*, Director, Drake University Head Start
*Mary Schertz*, Consultant, Iowa Department of Education
*Brenda Spurgeon*, Iowa Early Childhood Education Specialist, ICF International
*Catherine Swackhamer*, Early Childhood Education Specialist 0-5, ICF International
*Sherry Vanderploeg*, Director, Church of the Cross Preschool
*Jessica Vollmer*, Early Learning Coordinator, Early Connections
*Beth Walling*, Consultant, Early Childhood Consultations
*Becky Walters*, Comprehensive Services Supervisor, Hawkeye Area Community Action Program
*Carolyn Wassenaar*, Retired, Church of the Cross Preschool and Grand View University
*Cindy J. Weigel*, Education Consultant, Iowa Department of Education
*Meghan Wolfe*, Community Health Consultant, Iowa Department of Public Health
*Betty Zan*, Professor, University of Northern Iowa
*Yuzhu Zheng*, Postdoc Research Associate, Iowa State University

## 2006 Writing Committee

*Joane Amick*, Keystone Area Education Agency 1
*Alison Bell*, Area Education Agency 267
*Karen Blankenship*, Iowa Department of Education
*Donna K. Donald*, Iowa State University Extension
*Nancy Dunn*, Exceptional Persons, Inc.
*Cathy Eddy*, Heartland Area Education Agency 11
*Julie Edwards*, Upper Des Moines Opportunity, Inc.
*Kristi Engstrom*, Tri County Child & Family Agency
*Kathy Erikson*, Davenport Community Schools
*Kim Finch-Lear*, Davenport Community Schools
*Jeanette Flagge*, YOUR, INC. Head Start 0-5
*Rosemary Geiken*, University of Northern Iowa; TLC Center
*Dee Gethmann*, Consultant, Early Childhood, Iowa Department of Education
*Delora Jespersen Hade*, Des Moines Area Community College
*Anita Hampton*, Iowa State University Extension
*Sally Hartley*, Western Hills Area Education Agency 12
*Susan Hegland*, Associate Professor, Department of Human Development & Family Studies, Iowa State University
*Mary Hughes*, Iowa State University Extension

*Dorothy Lifka*, Child Guidance Center
*Patricia McReynolds*, SIEDA Community Action Partnership
*Penny Milburn*, Consultant, Early Childhood, Iowa Department of Education
*Jhumur Mukerjee*, Caliber Associates, Region VII Head Start
*Lisa Naig*, Loess Hills Area Education Agency 13
*Robin Nepper*, Caliber & Associates, Region VII Head Start TA Specialist
*Melanie Nollsch*, Kirkwood Community College
*Joanie O'Connor*, Community Action Agency of Siouxland
*Marsha Platt*, Child Care Resource & Referral of Northeast Iowa, Exceptional Persons, Inc.
*Christie Sales*, University of Northern Iowa
*Brenda Spurgeon*, Southern Iowa Economic Development Association
*Kim Stek*, Mahaska Health Partnership
*Catherine Swackhamer*, Iowa Head Start Technical Assistance Specialist, Caliber Associates
*Jill Uhlenberg*, University of Northern Iowa Child Development Center
*Beth Walling*, Iowa Child Care & Early Education Network, State Infant/Toddler Specialist
*Kim Young-Kent*, Tri-County Head Start

# I. INTRODUCTION

## Why Does Early Learning Matter?

Once mysterious, dismissed, or ignored, today we know much more about how young children's bodies, brains, and relationships grow and develop. From the moment of birth until a child enters kindergarten, there are approximately 2000 days. Research shows these 2000 days involve the most extraordinary and critical period of growth and development in a child's lifetime.

Young children learn best when they are safe, healthy, and free from hunger. Health and well-being must be considered by families and early care, education, health, and family support providers to individualize and promote *each* child's overall development and well-being. Well-child visits with an established primary care provider allows for monitoring each child's development, behavior, and immunizations, as well as oral, vision, and hearing health. Balanced nutrition, adequate sleep, and physical activity help children grow and establish healthy habits for life-long learning.

As young children interact with people, materials, and events, they develop the skills, understandings, and character traits that will impact their later learning. Warm, supportive, and responsive relationships help young children feel valued, safe, and secure. With the encouragement and guidance of nurturing adults including families, teachers, and health and child care providers, they are more likely to explore their world, take risks to gain new skills, thrive physically, gain maximum benefit from learning experiences, develop healthy relationships, and become productive members of a community.

When adults know what young children should be learning, they can create environments and provide experiences that support and nurture optimum physical, social, emotional, language, and cognitive development. The Iowa Early Learning Standards serve as a touch-point for developing and providing a variety of daily experiences in safe, nurturing, and stimulating environments that give *each* child the opportunity to succeed.

## What are Early Learning Standards?

Early learning standards, also referred to as guidelines or expectations, are descriptions of the knowledge, behaviors, and skills that children from birth through age five may demonstrate during the first 2000 days of life. These skills defined in the Iowa Early Learning Standards lead to success as students enter school and later become productive adult citizens in our communities.

The Iowa Early Learning Standards (IELS) are based on the values and beliefs held in Iowa where communities work together to achieve positive results for children and families. The IELS serve as a framework for making informed decisions that shape how we care for and educate our youngest citizens. The Iowa Early Learning Standards are designed to be used for the following tasks:

- inform adults, including families, about what they can expect young children to know and do;
- assist families, professionals, and community leaders in providing high quality early care, health, and education experiences for all children;
- guide curricular and assessment decisions by early childhood professionals in all public and private early care and education settings;
- inform policy development that enhances our infrastructure and professional development systems.

The Iowa Early Learning Standards are not intended to do the following:

- be used as a checklist or assessment tool to evaluate children;
- label, sort, or diagnose children;
- exclude children from infant/toddler programs, preschools, kindergarten or any early childhood program for which they are otherwise eligible;
- identify programs based on children's high achievement;
- serve as the sole criterion for program funding; or
- evaluate teachers or caregivers.

Early learning standards assist adults in understanding what children should know and be able to do prior to entering kindergarten. The IELS emphasize developmentally appropriate content and child outcomes. They should be implemented with instruction and assessment strategies that are ethical and appropriate for young children. For full implementation, the standards must be supported with strong financial supports and resources for early childhood programs, professionals, and families from legislators, community leaders, and policy makers (NAEYC, 2002).

## History of the Iowa Early Learning Standards

Early childhood leadership in Iowa has long recognized the need for developmentally appropriate learning standards for children, ages birth through age five, in our state. During 2005 and 2006, in response to federal requirements under Good Start, Grow Smart Early Childhood Initiative and the Federal Child Care Development Fund, the Iowa Departments of Education and Human Services jointly established a process and identified stakeholders to serve as the Iowa Early Learning Standards Writing Committee. The standards were developed through several months of work and formally adopted in 2006. Across the state, families and stakeholders from a variety of systems in early care, health, and education welcomed the Iowa Early Learning Standards.

In 2010, early childhood leaders began to identify the need to review and revise the standards, as well as show alignment between the standards and the Kindergarten to 12th Grade (K-12) Iowa Core. This process was included as a priority in the Head Start Early Childhood Advisory Council federal grant, received by Iowa through Early Childhood Iowa at the Iowa Department of Management. Early in 2012, as part of the work of the Early Childhood Iowa Professional Development Component Group, early childhood leadership from the Iowa Departments of Education, Human Services, Public Health, and Management, with partners from the Iowa Association for the Education of Young Children and the Iowa Head Start Association, approved a planned revision process. A widely diverse group of over fifty stakeholders was invited to be part of the review and revision writing team. This team met throughout 2012 in both large and small groups to produce a revised version of the standards, which has been adopted by Early Childhood Iowa.

Within the revision process of 2012, the following goals were determined and guided the review process:

- honor the quality work completed in 2006 by the original writing committee through making revisions only as needed;
- design a user-friendly document for anyone working with and caring for young children, a living and breathing document;
- provide alignment across the K-12 Iowa Core, Head Start Child Development and Early Learning Framework, Teaching Strategies GOLD, and other applicable documents used within the state;
- use the IELS to impact policies and procedures at the department level;
- design professional development opportunities that are aligned with the standards;
- define what children should know and be able to do, using current research;
- impact the four ovals of Iowa's professional development framework; early learning, family support, health/mental health/nutrition, and special needs/early intervention;
- design an implementation plan to share the revised standards; and
- build a seamless continuum with the Iowa Core to provide standards from Birth-12th grade.

## What is Different in the 2012 Iowa Early Learning Standards?

After reviewing materials such as the K-12 Iowa Core, Head Start Child Development and Early Learning Framework, and the Teaching Strategies GOLD Objectives for Development and Learning and considering the current Iowa context, the Iowa Early Learning Standards Review and Writing Committee chose to use the six content areas from the 2006 document and add a seventh to address what children learn from within their cultures, families, and communities; titled as social studies. The seven content areas of the 2012 IELS are as follows:

- physical well-being and motor development;
- approaches to learning;
- social and emotional development;
- communication, language, and literacy;
- mathematics and science;
- creative arts; and
- social studies.

The standards and benchmarks in each of these areas are based on both research and theory in child development and early education. Throughout the 2012 IELS document, additional and more current research has been added. The research and resources used within the rationale for each standard have been moved within each of the content areas, as opposed to being listed at the end of the document.

In the communication, language, and literacy content area, the role of a child's home language has been included. In addition, within the preschool section, additional benchmarks for English language learners have been defined. Additional benchmarks were not added to the infant/toddler sections, because those benchmarks address all language learners.

To be inclusive of all those caring for and educating young children, the term "caregiver" has been changed to "adult". In addition, more examples of benchmarks and adult supports were added to demonstrate the various settings and adults that children will interact with.

It is intended that the revised IELS will support legislators, community leaders, and early care, health, and education professionals in the development of an integrated and well-financed infrastructure that provides all young children with high-quality early care and education. This will, in turn, support Iowa's Vision that "Every child, beginning at birth, will be healthy and successful."

## Guiding Principles

The 2012 Iowa Early Learning Standards Review and Writing Committee unanimously agreed to use the National Association for the Education of Young Children (NAEYC) Principles of Child Development and Learning as guiding principles for the review process. The guiding principles included in the 2009 position statement of developmentally appropriate practice are grounded in research theory and literature. Although each principle stands alone in describing what we know to be true about how young children learn and grow, they are stronger when combined. The guiding principles are as follows:

1. All the domains of development and learning—physical, social and emotional, and cognitive—are important, and they are closely interrelated. Children's development and learning in one domain influence and are influenced by what takes place in other domains.
2. Many aspects of children's learning and development follow well documented sequences, with later abilities, skills, and knowledge building on those already acquired.
3. Development and learning proceed at varying rates from child to child, as well as at uneven rates across different areas of a child's individual functioning.
4. Development and learning result from a dynamic and continuous interaction of biological maturation and experience.
5. Early experiences have profound effects, both cumulative and delayed, on a child's development and learning; and optimal periods exist for certain types of development and learning to occur.
6. Development proceeds toward greater complexity, self-regulation, and symbolic or representational capacities.
7. Children develop best when they have secure, consistent relationships with responsive adults and opportunities for positive relationships with peers.
8. Development and learning occur in and are influenced by multiple social and cultural contexts, including the language of the family and home.
9. Always mentally active in seeking to understand the world around them, children learn in a variety of ways; a wide range of teaching strategies and interactions are effective in supporting all forms of learning.
10. Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence.
11. Development and learning advance when children are challenged to achieve at a level just beyond their current mastery, and also when they have many opportunities.
12. Children's experiences shape their motivation and approaches to learning, such as persistence, initiative, and flexibility; in turn, these dispositions and behaviors affect their learning and development.

Reference:

National Association for the Education of Young Children [NAEYC]. (2009). *Position statement: Developmentally appropriate practice in early childhood programs serving children birth through 8.* Retrieved October 19, 2012, from National Association for the Education of Young Children: http://www.naeyc.org/files/naeyc/file/positions/PSDAP.pdf

## Components of the Iowa Early Learning Standards

The Iowa Early Learning Standards are for everyone who loves, cares for, and educates young children. The standards are a **resource** to help support and enhance children's learning and development, as well as inform policy and decision makers. In addition, the standards are a **tool** to help share information among families, caregivers, child care professionals, family support professionals, health care professionals, teachers, and others who care for or work with children.

The Iowa Early Learning Standards are divided into **two age groups**, infant/toddler and preschool, within seven content areas of learning and development. Infants and toddlers cover the time period from birth until three years of age and are detailed in Section III; infants include children from 0-18 months and toddlers 18-36 months. Preschool covers the ages of three through five years and are detailed in Section IV.

Each **content area** reflects universal aspects of growth and development for young children. The areas of development are inter-connected and encompass the development of the *whole* child. Although the emphasis and titles of the areas differ somewhat from those in the K-12 Iowa Core, they are intended to provide a strong developmental foundation that represents the needs and capabilities of infants, toddlers, and preschool age children.

Within each of the seven content areas the standard, rationale, benchmarks, examples of benchmarks, and adult supports are identified. These components are defined as follows:

- **standard** - expectation of what an infant/toddler or preschool age child should demonstrate;
- **rationale** - highlights a description of the standard and the research that supports it;
- **benchmarks** - define the skills and behaviors infants, toddlers, or preschool age children develop to demonstrate the standard;
- **examples** - how children might practice and/or demonstrate the identified benchmarks; and
- **adult supports -** provide a list of recommendations for practice that can be used to contribute to the care, learning, and development of infants, toddlers, and preschool age children using developmentally appropriate strategies. All the recommended adult supports should incorporate English and each child's home language.

In Section II of the IELS document, you can find information on several essential considerations within early care, health, and education. The considerations include the following:

- The Importance of Children's Health and Well-Being
- The Role of Caring Adults and Communities
- The Importance of Embracing Diversity
- The Importance of Play in Learning
- The Role of Technology and Interactive Media
- The Role of Assessment
- Understanding School Readiness

The revised Iowa Early Learning Standards (2012) can be found on the Early Childhood Iowa website at http://www.state.ia.us/earlychildhood/files/ECI_SITE_FILES/IAearlylearningstandards.pdf**.**

## Alignment of the Iowa Early Learning Standards to the K-12 Iowa Core

In Section V of this document, you will find the alignments of the Iowa Early Learning Standards and the Iowa Core for Mathematics and English Language Arts. The Iowa Core (formerly known as the Iowa Core Curriculum and the Model Core Curriculum) describes academic expectations for all Iowa's K-12 students. The alignments provide a broad illustration of the connections between early learning and school-age expectations for children in Iowa. In the alignments, the kindergarten standards from the Iowa Core are listed in the third column at the beginning of each new section, and ALL of the IELS that serve as a foundation for each Core standard are listed. The alignment demonstrates that multiple content areas and benchmarks of the IELS serve as precursory learning for achieving the skills expected at the end of kindergarten.

The IELS are age-appropriate expectations that provide the framework for developmentally appropriate teaching and learning opportunities. This differs from the school-based expectation that each Iowa Core standard will be mastered by students at each grade level. The IELS are not intended to be used as a checklist of mastery, but rather to guide and focus the instruction and varied learning experiences for each child as s/he develops and learns. Therefore, the alignments link the learning of infants, toddlers, and preschoolers to knowledge that children should acquire by the end of kindergarten.

Understanding the skills children will be working toward in kindergarten provides guidance to childcare and preschool educators, and knowing what young children have learned prior to school provides insight to kindergarten educators. In all, the alignments of the IELS and the Iowa Core establish a seamless framework for a birth to grade twelve educational system for all of Iowa's learners.

For more information on the Iowa Core, visit the following links:

Iowa Core Literacy Standards

www.educateiowa.gov/index.php?option=com_content&view=article&id=2328&Itemid=4340

Iowa Core Mathematics Standards

www.educateiowa.gov/index.php?option=com_content&view=article&id=2243&Itemid=4341

For the Iowa Early Learning Standards, visit the Early Childhood Iowa website:

http://www.state.ia.us/earlychildhood/files/ECI_SITE_FILES/IAearlylearningstandards.pdf

# II. ESSENTIAL CONSIDERATIONS

When implementing the Iowa Early Learning Standards, it is important for caring adults to consider the following topics as they make decisions about children from birth through age five.

## The Importance of Children's Health and Well-Being

Children learn best when they are healthy, safe, and free of hunger. Well-child visits at an established medical home provide an important review of development, behavior, immunizations, oral health, vision, and hearing. Balanced nutrition, adequate sleep, and physical activity help children grow and set the stage for healthy habits and life-long learning. Infants, toddlers, and preschoolers must have their basic needs met in order to be ready to learn.

Like all areas of a child's development, health and well-being must be considered within the context of *each* individual child. Early care, education, health, mental health, and family support providers must be aware of a child's health in order to individualize and promote their overall development and well-being. Daily care and learning experiences in healthy and safe environments must foster the development of each child and should be flexible to capture the interests of the children as well as the individual abilities of the children.

***What This Means for Families***

**Families are encouraged to find a trusted primary care health provider and dentist, which will enable a child to be followed by a consistent group of providers who are familiar with the child and his/her needs.**

**Families can help their children grow and develop by providing balanced, nutritious meals, including breast milk for babies, as well as regular naps and bedtimes.**

**Families can support the physical development of their children by allowing for at least 60 minutes per day of active play within inside and outside environments. Attachments and relationships are strengthened and learning is increased when parents or guardians participate in these experiences with their children.**

**Families can support the healthy mental development of their children by being responsive to their needs and providing a safe, stable, predictable, and compassionate environment.**

**Families can prevent many significant injuries to their children by providing careful supervision at all times. It is important to check their home frequently for broken equipment, choking hazards, fall hazards, mini-blind cords, window dressings, cord hazards, chipped paint, and recalled products. It is also important to have smoke alarms on each level of the home and in each bedroom. Smoke alarms should be checked frequently to ensure they are working properly. Car seats need to be properly installed and appropriate for each child's age and size. Children need to be placed into their car seat at all times in moving vehicles. Medicines and cleaning solutions should be kept in their original packaging and stored out of reach of children.**

**Families should provide safe sleep environments for their children. Babies should be placed on their back to sleep in a crib with no blankets, bumper pads, or toys until their first birthday. It is dangerous for babies to sleep in car seats that are outside of a vehicle, bouncy seats, baby swings, or adult beds.**

**Families can help keep their children healthy by washing hands frequently, both theirs and children's. Washing hands should be done before making meals and snacks, eating, feeding a child, after using the bathroom, after changing diapers or assisting in the bathroom, and wiping a nose. Adult and child vaccines can also assist in preventing illness.**

## The Importance of Caring Adults and Communities

Young children—infants, toddlers, and preschool age children—develop knowledge and skills as they interact with familiar, consistent, and caring adults. Nurturing and responsive adults play a critical role in establishing the foundation for healthy growth and development. They help children develop a sense of security and trust, which are necessary for children to be ready to learn. Infants and toddlers learn through reciprocal communication and interactions with adults in the context of routine care, play, and an appropriate developmental environment. Preschoolers learn when caring adults are available to guide and facilitate play, as well as provide investigative experiences within large and small group experiences. Each early learning standard includes examples of adult supports that guide children's development through timely, responsive, and appropriate interactions.

Families are children's primary caregivers and first teachers, and should be valued as partners in early care, health, and education programming. Creating partnerships with families is essential for ensuring that children are provided with the best learning experiences within and outside the home. All adults involved in a child's day should exchange observations and information in order to plan and respond appropriately to the child's needs. For infants, toddlers, and less verbal preschool-age children, this exchange of information between families and other caring adults needs to occur daily. In addition, when young children are in care or education settings outside of the home, it is best to set up caregiving and relationship routines that are rooted in the familiar cultural context of the family.

Caring adults need to be actively involved in observing, facilitating, and extending children's play during child-initiated play activities. As adults circulate among children during play, they can stop to observe their play and interactions, engage in conversations with children about their play and experience, or facilitate children's problem solving efforts. Responsive adults guide children's communication and cognitive development with timely and appropriate questions; both open-ended (how, why, and what-if questions) and more specific questions giving limited choices that allow a young child to respond. High quality instructional support that provides quality feedback, scaffolds children's learning, and builds knowledge have been shown through research to make a difference in children's school readiness and future academic success (Hamre & Pianta, 2005).

Knowledgeable, caring adults can create opportunities for children to explore, discover, and construct their personal knowledge base. Rich indoor and outdoor environments establish the context for children to make predictions, observe events, and note the discrepancies between predictions and actual results. As children struggle with new skills, such as catching a ball, cutting with scissors, or counting objects, caring adults can simplify the tasks by breaking them into smaller steps or coaching the child as needed without diminishing the child's joy of discovery or achieving success. For example, when learning how to catch a ball, a caring adult may use a larger ball or move closer to the child. As the child improves his/her skills, the adult provides less and less support. Throughout this process, the caring adult gives only the minimum amount of assistance needed so that the child completes the activity with a sense of personal accomplishment.

***What This Means for Families***

**Families are children's first teachers. During play, families can observe the play, encourage their children to continue with play, participate in play, ask open ended questions, and share in the joy of their discoveries through brief conversations.**

**Families provide their children with learning opportunities throughout their waking day, using whatever materials and routines they have at hand. When their children are unable to complete a task, families provide "just enough" help to allow them to be successful.**

**When children are in childcare settings or when home visitors come into their home, families should expect to be equal partners with the caring adults who help to provide care of their children. Families should be encouraged to share observations about their children's activities at home, and their opinions and expectations should have a high priority when planning for their children.**

## The Importance of Embracing Diversity

Diversity refers to the characteristics that make an individual unique. It includes differences such as age, culture, disabilities, education, family mobility (transient, military, migrant), family structure (same sex couples, single, adoptive, grandparents), gender, languages, race/ethnicity, region, religion, socio-economic status/class, and talented and gifted skills.

Iowa is becoming more diverse, and children are leading the way. Over the last two decades, almost all of Iowa's growth in population has been due to the growth of the diversity of its residents. Between 1990 and 2008, Iowa's population grew by 8.1%, but the increase of white, non-Hispanic residents increased by only 1.7%. While 9.8% of Iowa's total population was non-white in 2008, the percentage of non-white children from birth to four was 17.7% (Wright, 2010).

Young children—infants, toddlers, and preschool age children—need programs with environments that respect diversity, support children's ties to their families and community, and promote children's cultural identity development (Early Childhood Iowa, 2011). Because the young child population is much more diverse than the state population as a whole, caring adults can address the diversity of children by acquiring cultural knowledge about families to inform program practices, including learning key words and phrases from a child's home language. When a child's cultural and linguistic background is reflected in the care and learning environment, learning is more meaningful and effective. This is the heart of individualized care.

Culturally and linguistically responsive adults can intentionally recognize, embrace, and celebrate diversity to promote success for all children by respecting, understanding, and showing empathy for the diverse cultural traditions and values of the children and families they serve. For example, some cultures and families value dependence over independence. Caring adults respect these values by supporting the child who needs more assistance due to being dependent on adults or letting children complete tasks on their own as might be encouraged in another family. Caring adults actively involve families in early childhood programs and implement curricula that respect cultural differences and avoid stereotypes. Through activities, materials, foods, books, dances, songs, art traditions, and celebrations, children develop pride in the traditions of their own family and community, as well as respect for the traditions of others.

To embrace diversity, caring adults can do the following:

- acquire cultural knowledge about families and use this knowledge to inform program practices;
- create an environment that welcomes all families and encourages them to participate in program activities and daily routines;
- provide a handbook of program policies and procedures in each family's home language;
- review the information in a handbook verbally with each family, using an interpreter as needed;
- acknowledge that young children may be raised in many kinds of families;
- arrange the room and provide materials and toys so that two or more children can play alongside each other or interact with play;
- provide opportunities for children to join in activities, such as finger-plays or singing songs, from each other's home language or culture;
- use words, key phrases, and sentences from each child's home language throughout daily routines and experiences;
- include staff or volunteers from the child's home culture or who speak the same language; and
- build personal awareness of cultural biases and how their view and behaviors are shaped by their own cultural backgrounds.

Embracing diversity also includes respecting developmental differences through accommodating children with varying abilities and their families. The Iowa Early Learning Standards are designed to identify standards and benchmarks with adult supports for *all* children. Young children with special physical, social, emotional, health, and/or communication needs may require additional individualized supports, adaptations, and accommodations by adults to fully access early care and education programs. Legally, non-family caring adults are required to make reasonable attempts to accommodate individuals with disabilities by the Americans with Disabilities Act (ADA).

Hospitable environments created by caring adults welcome and integrate all children regardless of developmental delays or special needs and their families. Programs should strive to implement family-centered practices that reflect the values and goals of each family. Caring adults encourage each child with special needs and their families to participate fully in program experiences and daily routines using visual, verbal, and physical cues as needed to communicate and interact effectively.

Caring adults can provide and make adaptations for all children through using the following strategies:

- provide opportunities and support to facilitate interaction with peers who are typically developing;
- develop opportunities for new and specific experiences to meet individual needs;
- form routines and other naturally occurring events to help children learn or practice new skills;
- develop experiences and materials to facilitate independent participation by *each* child;
- offer minimal assistance for each child to be successful within experiences;
- provide encouragement and feedback to help the child see the link between his/her effort and the task result or outcome;

- develop opportunities for children to function as leaders or models for their peers;
- design room arrangements that make materials and experiences clearly available and accessible to all children;
- make adaptations to ensure the early care and education setting is fully accessible;
- use specific adaptive materials and equipment that provide additional support to facilitate care and learning;
- label and/or color code materials to aid recognition, selection, or use;
- modify equipment or tools to facilitate independent use; or
- provide for adult or peer support, such as a classroom associate teacher or peer buddy, to facilitate interactions with other children or the use of materials.

***What This Means for Families***

**Families should expect that caring adults in early care, health, and education settings and those who visit families in their homes will respect and honor their cultures and the childrearing practices that arise from those cultures. Families may be asked to share aspects of their culture with their children's peers and playmates.**

**Families should know that every effort will be made to provide them with printed materials in their native language or read to them by a competent interpreter.**

**Families who have children with identified special needs can and should seek out caring adults in early care and early education settings that are willing to make accommodations so their children can fully participate in experiences that are made available to most children.**

**Families should look for early care and education programs that employ competent, educated, and nurturing adults who can provide individual instruction, when needed, in order to facilitate the development of skills and concepts in their children.**

## The Importance of Play in Learning

Play is so important for optimal child development that it is included as a right of every child in the United Nations High Commission for Human Rights (Convention on the Rights of the Child. General Assemby Resolution 50/155 of 21, 1995). Research documents and continues to explore and support the intrinsic value and positive benefits of play as a positive approach to learning for young children (Hyson, n.d.; Lifter, Foster-Sanda, Arzamarski, Briesch, & McClure, 2011). The most recent position statement on *Developmentally Appropriate Practice in Early Childhood Programs Serving Children Birth through 8* (NAEYC, 2009) describes the foundational and long-term benefits of play that includes the development of self-regulation skills as well as language, cognitive, and social competence.

Play is fundamental and essential for infants, toddlers, and preschool age children to develop healthy active brains, bodies, and relationships (Ginsburg, 2007). Intuitively valued over time, play has been a natural mode for learning in early care and education programs. However, free, spontaneous, child-directed play is being attacked and in danger of losing its status. In today's lifestyle of 'hurried families', emphasis on academic preparation for school, and concern for global positioning, families and schools are minimizing and dismissing child's play. Early learning standards have the potential to reinstate and endorse the benefits of play for children.

Through play, children learn about themselves and the world through self-created experiences and positive social interactions with peers and nurturing adults. Children explore and practice complex motor, cognitive, communication, and social skills developing neural synapses that lead to self-regulation, symbolic or representational capacities, and executive functions (Bodrova & Leong, 2005; Hyson, n.d.). They develop competencies and character traits that support learning and emotional well-being (Elkind, Clemens, Lewis, Brown, Almon, & Miller, 2009; Ginsburg, 2007). Given time, space, supportive adults, open-ended materials, and safe, yet challenging environments, children develop confidence in themselves, competencies to master their environment, deep-seated connectedness to and caring about others, the ability to create environments of love, safety, and security, and resilience (Ginsburg, 2007).

Children enrolled in highly academic programs dominated by teacher-directed activities may be academically prepared for the first years of school. However, longitudinal studies are documenting that a healthy balance between preparing for the future and living fully in the present through play, child-centered and organized experiences, and caring adult-child interactions prepare children for life emotionally, socially, and academically (Elkind, Clemens, Lewis, Brown, Almon, & Miller, 2009; Ginsburg, 2007; Gopnik, 2012; Miller & Almon, 2009). All children need the support of nurturing and caring adults who understand, value, and provide opportunities for play in ways that enable the access of their instinctive motivations to understand or do what is just beyond their current understanding or mastery.

Children engage in various kinds of play. Physical, active play both indoors and outdoors, contributes to healthy bodies, coordination, balance, and a sense of one's body in the space around it. Infant motor development is delayed when babies are placed in restrictive equipment such as wind-up swings, play tables, or jumping seats for long periods of time. Infants and toddlers who are allowed to spend most of the day freely moving arms and legs, while exploring their physical environment designed for maximum safety, develop the most advanced motor and cognitive skills needed for later development. Small motor play like stringing beads, playing with puzzles, and sorting objects contributes to dexterity and organizational skills. The motivation and perseverance demonstrated through play lays the foundation for resilience and problem-solving. Symbolic play, where children use objects to represent other objects (e.g. using a block as a phone), and make-believe play are rich with language, problem-solving, and imagination. As children create and adhere to the roles and rules of play, they grow in their ability to coordinate and negotiate with others, make plans, and inhibit impulses. Language play engages the child's fascination with sounds (both native and foreign), words, rhymes, verses, songs, stories, and dramatization initiating the foundations for literacy and the language arts. Children play with art materials to express feelings and ideas, using whatever materials are at hand to explore, discover, and create. Sensory play engages the senses as the child feels the texture of dirt, sand, and mud and listens to and distinguishes sounds. When children are given opportunities to engage in rough and tumble and risk-taking play, they learn to extend their limits and set their own boundaries contributing to self-regulation.

Young children need a variety of materials for play and learning. Although some single purpose, close-ended materials, such as puzzles, provide learning opportunities, the majority of young children's toys should be flexible in use and open to a variety of play activities. Toys such as blocks, play dough, and blank paper can be used by children at different developmental levels and for a variety of purposes. Toys that can be used in more ways by a child are typically more educational because they encourage the child to plan, explore, observe, and create (Copple & Bredekamp, 2009; Elkind, Clemens, Lewis, Brown, Almon, & Miller, 2009; Ginsburg, 2007; Miller & Almon, 2009) rather than simply follow directions. Open-ended materials need to be available and freely accessible to infants, toddlers, and preschool age children for the majority of their day.

The Iowa Early Learning Standards emphasize the importance of play in learning by integrating play into every content area of development using examples of both indoor and outdoor play to illustrate how caring adults can support children's natural inclinations, motivations, joy, and learning. Play is natural. Play is meaningful. Play is joyful. Play is essential as we engage and prepare our young children for the 21st century.

Caring adults best support play with young children when they believe and practice the following:

- value child-initiated play and recognize that play is learning;
- balance child-initiated play with appropriate levels of adult guidance;
- provide adequate time and space for infants, toddlers, and preschool age children to experience the joy of exploring and discovering their world through play;
- recognize play as a demonstration of what children know and are thinking;
- link inside environments to outside environments to provide settings where new knowledge is constructed about objects, people, and events;
- understand that play is not about the toy, but the act, the experience, the process, or the outcome;
- use play intentionally to support children's learning and development;
- use play behaviors to assess and document what children know and can do;
- base the curriculum on play;
- use play as an intervention to facilitate children's progress and development of increasingly complex levels of play;
- value play as a tool of the mind (Bodrova & Leong, 2005; Bodrova & Leong, 2008);
- use play to promote children's positive approaches to learning (Hyson, n.d.);
- recognize that play is developmental and deserves consideration within all domains of development (Lifter, Foster-Sanda, Arzamarski, Briesch, & McClure, 2011).

### *What This Means for Families*

**It is important for families to recognize the importance of child-initiated play, whether at home or in early care and education settings. Families need to understand that through play their children will explore and practice many important skills, including movement of their whole bodies as well as fingers and hands, getting along with their friends, solving problems, and speaking and listening. Play supports children's curiosity and develops their knowledge about why things work the way that they do.**

**As families seek guidance about what toys to buy, they understand that the best toys are those that are open-ended. Open-ended toys have a variety of uses and support creativity in children; open-ended items include blocks, play dough, sorting objects, paper, and all types of writing and drawing tools which allow and encourage creativity in their children.**

**When families observe, narrate, and ask open-ended questions as their children play, they build the skills necessary for children to understand their world and how to interact with others.**

**As families seek appropriate early care and education settings for their children, they should look for environments where the environment is set up to encourage child-initiated play. The schedule should provide many opportunities for children to play by themselves or in small groups, where they can learn from each other. Rather than worksheets, coloring pages, or cut and paste activities, families should anticipate art creations which are unique to each child. These creations invite children to use ever expanding vocabulary to describe the creative process and result of their efforts.**

## The Role of Technology and Interactive Media

Children can learn about technology when provided opportunities to explore and experience media in age appropriate ways (Labbo, 1996; Roskos, Burstein, You, Brueck, & O'Brien, 2011). However, it is essential that during exploration adults are present to supervise, interact with children, and scaffold learning (Labbo, 2009; Turbill, 2001). The American Academy of Pediatrics (AAP) and the National Association for the Education of Young Children (NAEYC) discourage all screen media for children under 2 years of age and recommend only one to two hours per day for children older than 2 years (AAP, 2011; NAEYC & Fred Rogers Center for Early Learning and Children's Media, 2012).

"When used wisely, technology and media can support learning and relationships. Enjoyable and engaging shared experiences that optimize the potential for children's learning and development can support children's relationships both with adults and their peers" (NAEYC & Fred Rogers Center for Early Learning and Children's Media, 2012, p. 1). The position statement of the National Association for the Education of Young Children and the Fred Rogers Center for Early Learning and Children's Media at Saint Vincent College helps anyone working with children, from birth through age eight, make informed decisions about the appropriate use of technology. The Technology for Early Childhood Center at the Erikson Institute, on its homepage, describes the position statement as, "a framework to guide practice in the selection, use, integration, and evaluation of technology tools and screen media in early childhood settings serving children birth through age eight" (TEC Center, 2012).

Key messages of the NAEYC and Fred Rogers Center position statement on technology (2012) include the following:

- when used intentionally and appropriately, technology and interactive media are effective tools to support learning and development;
- intentional use requires early childhood teachers and administrators to have information and resources regarding the nature of these tools and the implications of their use with children;
- limitations on the use of technology and media are important;
- special considerations must be given to the use of technology with infants and toddlers;
- attention to digital citizenship and suitable access is essential; and
- ongoing research and professional development are needed.

### *What This Means for Families*

**Families should know that technology is a part of our culture and an important tool for communication and learning, but should not substitute for one-on-one time with family members. Intentional use of technology can support children's development in areas such as literacy and language, mathematics, and science.**

**Families can provide children opportunities to use technology together, such as reading digital storybooks or watching a favorite developmentally appropriate children's show together.**

**Families should protect children from excessive amounts of 'screen time' as well as inappropriate media such as violent programs. Instead, families should recognize that children learn through play and provide extended periods of time playing with their children.**

## The Role of Assessment

Although the Iowa Early Learning Standards are not intended to be used directly as an assessment tool, they should be seen as a guide for selecting curriculum-based assessments that include the areas of development with comparable benchmarks. Examples of current assessments available to assess children's mastery or partial mastery of many of the skills, understandings, and attitudes identified in the Iowa Early Learning Standards include Teaching Strategies® GOLD, HighScope® Child Observation Record, or the Ounce Scale™.

Ethical, appropriate, valid, and reliable assessment should be an important part of all early care, health, and education programs. Assessments should be developmentally appropriate, culturally and linguistically responsive, tied to children's daily activities, supported by professional development, and inclusive of families. The determination of what to assess should be based on the Iowa Early Learning Standards and what all children should know and be able to do prior to entering kindergarten.

The NAEYC position statement on curriculum, assessment, and evaluation (2003) offers these guiding principles when considering the selection and use of assessment instruments in early childhood settings:

- assessments are used for their intended purposes;
- assessments are appropriate for the ages and characteristics of the children being assessed;
- what is being assessed is developmentally and educationally significant;
- assessment evidence is used to understand and improve learning;
- assessment evidence is gathered from realistic settings and situations that reflect children's actual performance;
- assessments use multiple sources of evidence gathered over time;
- screening is always linked to follow-up; and
- use of individually administered, norm-referenced instruments is limited.

All caring adults need to monitor each child's development on an on-going basis. Continuous monitoring serves four goals:

1. identifies the activities, interactions, materials and instruction that will facilitate the next steps of development for *each* child;
2. facilitates communication with parents and professionals regarding the development of the child, including any concerns that may arise;
3. provides information regarding when other resources, including additional assessments by specialists, are needed; and
4. assists programs in improving their educational and developmental interventions by examining the growth of groups of children.

Caring adults should work with families to observe and monitor each child's development. Consistent patterns of behavior that occur over time in multiple situations are discussed while considering and the cultural context in which the child is developing is considered. Periodically, families and caring adults meet to more formally review the child's growth and progress in order to plan for future programming. Any concerns regarding the child's development may originate with either the family or the caring adult. A relationship of mutual trust between the caring adult and families is important for dealing with any concerns in a timely and positive manner, when or if they develop.

Caring adults use two types of formal assessments to inform their work with young children; screening instruments designed to identify children with developmental delays who may need additional services and curriculum-based instruments designed to support learning and instruction. Screening instruments are brief sets of tasks used to distinguish between children who are making appropriate developmental progress and those who may need additional supports to successfully master age-appropriate concepts or skills. When choosing screening instruments, early childhood professionals evaluate the assessment's sensitivity and specificity which determines how well the measure identifies only those children who need additional assessment and/or specific intervention services. Most screening instruments are used once a year or when caring adults have concerns about a specific child's development. However, several recently developed screening instruments, which focus upon the development of specific readiness skills, may be administered to all children up to three specified times during the year. A child's progress compared to acceptable "benchmarks" at these specified times during the year serves as an indicator of the need for further intervention and/or more in-depth assessment. When screening results lead to a referral for more in-depth assessment, the in-depth assessment may include some use of individual norm-referenced tests. Assessment specialists and support personnel who administer these tests to young children must exercise great caution in their use and interpretation. Norm-referenced test results should always correspond and be supported by additional complementary evidence.

Curriculum-based assessment instruments should match the instructional goals of the curriculum and assess what is taught. Reliable and valid curriculum-based assessment tools are research based linking the developmentally appropriate skills and concepts assessed to more advanced skills and concepts essential for future success in school and in life. All the areas of development, as detailed in the content areas of the Iowa Early Learning Standards are interrelated. However, some curriculum-based assessment tools focus on isolated skills, such as the names of colors, which are easily assessed, rather than on broader process skills, such as carrying on a conversation with another person, that research has shown lead to later success. Curriculum-based assessments are more useful when they include multiple steps in a developmental path. Caring adults gain insight about the child's current level of functioning as well as predictions for the next developmental steps when using curriculum-based assessments. Caring adults partner with families to plan, facilitate, and support a child's development by selecting appropriate experiences, activities, and instruction.

The most accurate assessments of children's knowledge, skills, and motivations occur during the course of their everyday activities. Young children usually show more advanced development in a familiar situation, using familiar materials, and during self-selected activities (Meisels & Atkins-Burnett, 2000). Ongoing observations and assessments of the young child in multiple settings, including home and school and during routine activities and play, give families and caring adults opportunity to collaborate and provide evidence of the child's mastery of each benchmark. Recorded observations document children demonstrating skills and understandings at times and in settings where they occur naturally as they play. The examples provided for each of the standards models the type of observations that can be used as evidence of at least partial mastery of selected benchmarks. Other forms of recording are also appropriate to use depending on the activity and the skill, including checklists, event sampling, and time sampling. For example, a checklist might be appropriate to assess the large motor skills of a group of young children going through an obstacle course. Time sampling might be appropriate to monitor the child's increased use of appropriate social behaviors.

***What This Means for Families***

**Families should expect that their children's development will be monitored by early care, health, and education programs. This monitoring can be done through a brief screening which usually looks at broad areas of development and learning. It might be completed only once or twice a year. It can be done by interviewing families, presenting children with tasks to complete, and/or observing children as they play or interact with family members. Screenings are used to be certain children are developing as expected. The results of any screenings should be shared with families in a timely manner. Caring adults should assist families in accessing resources for further information and/or services.**

**Families are valuable sources of information. Families should expect to partner with early care, health, and education programs to share their insights and observations of what their children think, know, and can do. This type of curriculum-based assessment helps caring adults outside of the family to understand what children know and how they are interacting with materials, environments, and people who are familiar to them. This approach encourages everyone to work together as a team to determine what children know and what they are ready to learn next.**

**Families whose home language is not English should expect that their children will be assessed in their home language. They should also expect that results of any assessments will be provided to them in a manner which is easy and meaningful for them to understand.**

## Understanding School Readiness

The focus on education reform continues to raise concern regarding children's readiness to enter kindergarten and first grade. School readiness has been based on the assumption that there is a predetermined set of capabilities that all children need before entering school ( NAEYC, 1995). However, children's early learning and development has been described as complex and influenced by individual, cultural, and contextual variation (Kagan, Moore, & Bredekamp, 1995). NAEYC (1995) recommends that discussions of school readiness consider the following:

- the diversity of children's early life experiences as well as inequity in experiences;
- the wide variation in young children's development and learning; and
- the degree to which school expectations of children entering kindergarten are reasonable, appropriate and support of individual differences.

In addition, a child's readiness for transitioning into the K-12 schools should be measured and addressed across five distinct but connected domains: physical well-being and motor development, social and emotional development, approaches to learning, language development, and cognition and general knowledge (Rhode Island Kids Count, 2007).

School readiness includes the readiness of the individual child, the school's readiness for children, and the ability of the family and community to support optimal early child development (High, 2008). School readiness is ensured by the efforts of family members, teachers or child care providers, community members, and policy makers. School readiness cannot be determined by looking at the child alone nor should school readiness be measured only by knowledge of math and literature. Gathering pertinent information with respect to readiness includes a comprehensive, developmentally, and educationally important set of goals, rather than a narrow set of skills (NAEYC, 2003). To have rewarding and successful daily experiences, as well as to prepare for successful, responsible experiences both in school and in a democratic society, *each* child needs the following:

- access to high quality early care and education experiences;
- health care, nutrition, and social-emotional nurturance;
- caring adults in their lives who have the skills, understanding, and resources to foster development.

Families and communities need to provide *each* child with safe, nurturing, nourishing, and healthy environments that are developmentally, individually, and culturally appropriate. Furthermore, early care and education settings, including kindergartens, must be ready to serve a population of children and families from diverse cultures and with diverse abilities. The collaboration of policy makers, community leaders, professionals, and families is needed to meet these needs for young children. Policy makers must establish an infrastructure at both state and community levels that supports infants, toddlers, and preschool age children as they gain the skills and understanding they need to arrive at kindergarten ready for success. This infrastructure includes the following:

- professional development systems to help those who work with young children acquire the knowledge and skills to provide high quality early care and education programs;
- access for all families to affordable health care and nutrition services for themselves and their children;
- high quality early care and education programs that are available, accessible, and affordable for all families with young children in all communities; and
- services for young children and their families (e.g., child care, Head Start, and public school programs), that are linked to health, mental health, and social services.

*What This Means for Families*

**Families should know that "readiness" for kindergarten is more than knowing letters, sounds, and numbers. Other factors, such as overall health and well-being, social and emotional skills, language development, and enthusiasm and curiosity for learning, also need to be considered.**

**Besides looking at the whole child when thinking about kindergarten "readiness", it is also important for families, caregivers, and early education professionals to think about what type of kindergarten experience will be available for children and who can help children with the transition to kindergarten.**

**Families should know that in Iowa the only requirement for attending kindergarten is that a child is 5 years old by September 15 of the year they start kindergarten.**

**Families who are concerned about their children's future success in kindergarten should ask for assistance in finding appropriate supports and early learning opportunities for their children, no matter if the children will spend another year in an early childhood setting or make the transition to kindergarten.**

**Families should request that a transition plan be created for their children between the home setting or early care and education program their child attends and their home school district. Transition plans will allow for information to be shared regarding their children and family, and will assist in the success of their children.**

## References


American Academy of Pediatrics [AAP]. (2011). Policy statement: Media use by children younger than 2 years. *Pediatrics 128*(5), 1040-1045.

Bodrova, E., & Leong, D. (2005). High quality preschool programs: What would Vygotsky say? *Early Education & Development*, *16*(4), 437-446.

Bodrova, E., & Leong, D. J. (2008). *Beyond the Journal Young Children on the Web.* Retrieved from http://www.naeyc.org/files/yc/file/200803/BTJ_Primary_Interest.pdf

*Convention on the Rights of the Child. General Assemby Resolution 50/155 of 21.* (1995, December). Retrieved from http://www2.ohchr.org/english/law/crc.htm#art44

Copple, C., & Bredekamp, S. (2009). References to Play in NAEYC Position Statements. Washington, DC, USA. Retrieved from http://www.naeyc.org/files/naeyc/file/ecprofessional/Play%20references%20in%20NAEYC%20position%20statements_10%2009%20update.pdf

Early Childhood Iowa. (2011, December). *Early Childhood Iowa Stakeholder's Alliance Cultural Competencies.* Retrieved from www.state.ia.us/.../IowaECI_CulturalCompetenciesFinal_DEC2011.pdf

Elkind, D., Clemens, S. G., Lewis, R., Brown, S., Almon, J., & Miller, E. (2009, October). *The Wisdom of Play: How Children Learn to Make Sense of the World.* Retrieved from http://www.communityplaythings.com/resources/articles/RoomPlanning/WisdomOfPlay.pdf#search=The%20Wisdom%20of%20Play

Ginsburg, K. R. (2007). The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Pediatrics*, *119*(1), 182-191.

Gopnik, A. (2012). Scientific thinking in young children: Theoretical advances, empirical research, and policy implications. *Science*, *337*(6102), 1623-1627.

Hamre, B. K., & Pianta, R. C. (2005). Can instructional and emotional support in the first-grade classroom make a difference for children at risk of school failure? *Child Development*, *76*(5), 949-967.

High, P. C. (2008). School readiness. *Pediatrics*, *121*(4), e1008-e1015.

Hyson, M. (n.d.). *Research Connections.* Retrieved from http://www.researchconnections.org/files/childcare/pdf/PlayandApproachestoLearning-MarilouHyson-1.pdf

Kagan, S.L., Moore, E., & Bredekamp, S. (Eds.) (1995). *Reconsidering children's early learning and development: Toward shared beliefsand vocabulary*. Washington, DC: National Education Goals Panel.

Labbo, L. D. (1996). Computers real and make believe: Providing opportunities for literacy development in an early childhood sociodramatic play center. *Instructional Resource* No. 26.

Labbo, L. D. (2009). 'Let's do the computer story again, Nana': A case study of how a 2 year old and his grandmother shared thinking spaces during multiple readings of an electronic story." In *Multimedia and Literacy Development: Improving Achievement for Young Learners*, eds. A.G. Bus & S.B. Neuman. (pp. 196-210). New York: Routledge.

Lifter, K., Foster-Sanda, S., Arzamarski, C., Briesch, J., & McClure, E. (2011). Overview of play: Its uses and importance in early intervention/early childhood special education. *Infants and Young Children*, *24*(3), 225-245.

Meisels, S. J., & Atkins-Burnett, S. (2000). The elements of early childhood assessment. In J. P. Shonkoff & S. J. Meisels (Eds.), *Handbook of early childhood intervention* (2nd Ed., pp. 231–25). New York: Cambridge University Press.

Miller, E., & Almon, J. (2009, March). *Crisis in the kingergarten: Why children need to play in school.* Retrieved from http://www.allianceforchildhood.org/sites/allianceforchildhood.org/files/file/Kindergarten_8-page_summary.pdf

National Association for the Education of Young Children [NAEYC]. (1995). *School Readiness: A Position Statement of the National Associaton for the Education of Young Children*. Retrieved from http://oldweb.naeyc.org/about/positions/pdf/PSREADY98.PDF

National Association for the Education of Young Children [NAEYC]. (2002). *Early learning standards: Creating the conditions for success: A joint position statement of the National Association for the Education of Young Children and the National Association of Early Childhood Specialists in state departments of education*. Washington DC: author. Retrieved from http://www.naeyc.org/resources/position/statements/earlylearn.pdf

National Association for the Education of Young Children [NAEYC]. (2003). *Position statement: Early childhood curriculum, assessment, and program evaluation.* Retrieved from http://www.naeyc.org/files/naeyc/file/positions/pscape.pdf

National Association for the Education of Young Children [NAEYC]. (2009). *Position statement: Developmentally appropriate practice in early childhood programs serving children birth through 8.* Retrieved from http://www.naeyc.org/files/naeyc/file/positions/PSDAP.pdf

National Association for the Education of Young Children [NAEYC] & Fred Rogers Center for Early Learning and Children's Media. (2012). *Position statement: Technology and interactive media as tools in early childhood programs serving children from birth through age 8.* Retrieved from http://www.naeyc.org/files/naeyc/PS_technology_WEB.pdf

Rhode Island Kids Count. (2007). Preparing Rhode Island's children to succeed in school: Selected school readiness indicators. *Benchmarks for Progress.* Retrieved from http://www.rikidscount.org/matriarch/documents/RI%20SRI%20Booklet.pdf

Roskos, K., Burstein, K., You, B. K, Brueck, J., & O'Brien, C. (2011). A formative study of an e-book instructional model in early literacy." *Creative Education, 2*(1), 10-17.

Technology for Early Child [TEC] Center at the Erikson Institute. (2012). Retrieved from http://www.teccenter.erikson.edu

Turbill, J. (2001). A researcher goes to school: Using technology in the kindergarten literacy curriculum. *Journal of Early Childhood Literacy, 1*(3), 255-279.

Wright, M. S. (2010). *Dreams and opportunities: Immigrant families and Iowa's future*. Retrieved from http://www.cfpciowa.org/uploaded/Dreams%20and%20Opportunities%20-%20Immigrant%20Families%20and%20Iowas%20Future_1.pdf

# III. INFANT and TODDLER Early Learning Standards

**Area 1: Physical Well-Being and Motor Development**
1.1 Healthy and Safe Living
1.2 Large Motor Development
1.3 Small Motor Development

**Area 2: Approaches to Learning**
2.1 Curiosity and Initiative
2.2 Engagement and Persistence
2.3 Reasoning and Problem Solving
2.4 Play and Senses

**Area 3: Social and Emotional Development**
3.1 Self
3.2 Self-Regulation
3.3 Relationships with Adults
3.4 Relationships with Children

**Area 4: Communication, Language and Literacy**
4.1 Language Understanding and Use
4.2 Early Literacy
4.3 Early Writing

**Area 5: Mathematics and Science**
5.1 Comparison and Number
5.2 Patterns
5.3 Shapes and Spatial Relationships
5.4 Scientific Reasoning

**Area 6: Creative Arts**
6.1 Art
6.2 Music, Rhythm, and Movement
6.3 Dramatic Play

**Area 7: Social Studies**
7.1 Awareness of Family and Community
7.2 Awareness of Culture
7.3 Exploration of the Environment

## Area 1: Physical Well-Being and Motor Development

### *1.1 Healthy and Safe Living*

| Standard | Infants and toddlers participate in healthy and safe living practices. |
|---|---|
| **Rationale** | Infants and toddlers need nutritious foods to sustain the growth, activity, and functioning of their bodies, including their brains. Eating nutritious food daily must be accompanied by offering appropriate daily physical activity and play time for the healthy physical, social, and emotional development of infants and young children. Physical, social, and emotional habits are developed during the early years and continue into adulthood; thus these habits can be improved in early childhood to prevent and reduce obesity and a range of chronic diseases. Current research documents that a balanced diet, combined with daily and routine age-appropriate physical activity, can reduce diet-related risks of overweight, obesity, and chronic disease later in life (U.S. Department of Health and Human Services & U.S. Department of Agriculture, 2010; American Academy Of Pediatrics, American Public Health Association, & National Resource Center for Health and Safety in Child Care and Early Education, 2011). Modeling of healthy eating behavior and physical activity by early care and education staff helps a child to develop lifelong healthy eating habits.<br><br>Accidents, or unintentional injuries, are the leading cause of death for infants and toddlers (Iowa Department of Public Health, 2008). Because young, exploring children lack the judgment to avoid dangerous situations, adults have the responsibility to provide direct supervision, safe routines, and developmentally appropriate equipment, toys, and environments. Sudden Infant Death Syndrome (SIDS) is the third leading cause of death for infants under one year of age (Iowa Department of Public Health, 2008). Research has shown that rates of Sudden Infant Death Syndrome (SIDS) decline dramatically when infants are placed on their back to sleep (NICHD, 2005). The American Academy of Pediatrics (AAP, 2012) recommends that all early care and education programs serving infants create and use a written sleep policy.<br><br>Lead exposure can also affect children's overall health and well-being. Lead is a neurotoxin. Even at low levels of exposure, lead can cause reduction in a child's IQ and attention span, and result in reading and learning disabilities, hyperactivity, and behavioral difficulties. These effects cannot be reversed once the damage is done, affecting a child's ability to learn, succeed in school, and function later in life. Lead exposure to children primarily occurs through chipping and peeling interior and exterior wall paint. Additional sources of lead exposure can be through environmental contamination, imported play equipment, toys, jewelry used for play, vinyl mini-blinds and food contact products (U.S. Department of Health and Human Services & U.S. Department of Agriculture, 2010; American Academy Of Pediatrics, American Public Health Association, & National Resource Center for Health and Safety in Child Care and Early Education, 2011). |

| | |
|---|---|
| **Benchmarks** | **The infant:**<br>1. expresses satisfaction/dissatisfaction regarding care and play routines as well as participates in care routines based on appropriate developmental stages and family culture.<br>2. establishes healthy eating and sleeping patterns with the assistance of a responsive adult.<br>3. ingests breast milk or formula, progressing to solid foods, to feeding self simple and age appropriate foods, and drinking from a cup.<br>**The toddler:**<br>4. participates in healthy self-care routines, demonstrating increasing independence, such as washing hands and pouring own milk, with assistance from a caring adult.<br>5. eats healthy foods at a table with other children or adults.<br>6. participates in safe behaviors regarding the environment, such as around stairs or hot surfaces, or accepts redirection from adults. |
| **Examples of Benchmarks** | Andy snuggles into a caring adult's arms, gazes up at him/her, and begins to drink.<br><br>Lunch is ready. Ricky walks to the bathroom, where the caring adult helps him wash his hands.<br><br>The caring adult puts a plate of food in front of Bieu. She picks up and eats the diced up pieces of chicken and bread. She leaves the cooked carrots on her plate until she sees the caring adult eat some carrots. The adult says, "Mmm. I like carrots." Bieu eats a carrot.<br><br>Carrie points to the toilet while her diaper is being changed. The caring adult says, "Do you want to sit on the potty?" and then takes Carrie to it allowing her to sit on the toilet. |
| **Adult Supports** | With infants and toddlers, adults:<br>• place *each* infant on their back for sleeping in a crib meeting current safety standards set by the Consumer Product Safety Commission.<br>• provide nutritious and age appropriate daily meals, including breast milk, that are responsive to *each* child's physical, developmental, and cultural needs.<br>• use safe, healthy caregiving practices in diapering, feeding, toileting, handwashing, and nose-wiping routines with *each* child.<br>• gather information from families about caregiving routines at home and work with families to adjust to cultural variations in these routines.<br>• sit with children while they eat and hold all infants for bottle feedings. |

| | |
|---|---|
| **Adult Supports (continued)** | • ensure that the environment is safe for *each* child by removing or limiting access to hazardous substances and situations, such as electrical outlets, hot surfaces, stairs, cleaning products, and small objects or toys.<br>• individualize strategies to assist *each* child to engage in safe and healthy practices as independently as possible.<br>• use adaptive equipment to help children with special needs develop self-help skills.<br>• share with other caring adults the importance of nutritious food for children.<br>• maintain First Aid and CPR certification.<br>• ensure children are being followed by a health care provider through receiving regular health checks. |

**References**


American Academy of Pediatrics [AAP]. (2012). *A child care provider's guide to safe sleep: Helping you to reduce the risk of SIDS.* Washington, DC: Author.

American Academy Of Pediatrics, American Public Health Association, & National Resource Center for Health and Safety in Child Care and Early Education. (2011). *Caring for our children: National health and safety performance standards; Guidelines for early care and education programs. 3rd edition.* Elk Grove Village, IL: American Academy of Pediatrics; Washington, DC: American Public Health Association. Also available at http://nrckids.org

Iowa Department of Public Health. (December 2008). *The Burden of Injury in Iowa, Comprehensive Injury Report, 2002-2006*. Retrieved from http://www.idph.state.ia.us/bh/common/pdf/injury_prevention/burden_of_injury_full_report.pdf

National Institute of Child Health and Human Development [NICHD]. (2005). *Back to sleep campaign.* Retrieved November 10, 2012, from the National Institute of Child Health and Human Development: http://www.nichd.nih.gov/sids/

U.S. Department of Health and Human Services, U.S. Department of Agriculture. (2010). *Dietary guidelines for Americans*. 7th ed. Washington, DC: U.S. Government Printing Office.

## Area 1: Physical Well-Being and Motor Development

### *1.2 Large Motor Development*

| Standard | Infants and toddlers develop large motor skills. |
|---|---|
| **Rationale** | Large motor development includes skills that involve the big muscles of the body, such as crawling, walking, and running. Reaching for objects has also been defined as "whole body activity", due to the movements requiring balance while reaching (Rochat & Goubet, 1995, p. 65). Infants and toddlers move for exploration and fun. They use movement to get to both people and toys. They typically make significant gains in balance, strength, coordination, and locomotion during the first 30 months. These advances in their motor skills also affect their cognitive, social, and emotional development. For example, although infants can distinguish between shallow and high drop-offs, they show no fear of heights until they can crawl on their own (Bertanthal & Campos, 1990). Complex motor skills such as learning to walk up a slope require the development of visual perception, physical strength, coordination, and balance gained through their previous motor experiences (Adolph, 1997).<br><br>To help infants and toddlers develop large motor skills, caring adults provide indoor and outdoor environments that are both safe and challenging to explore. It is important for adults to limit the use of restrictive equipment, such as bouncy and Bumbo seats, exersaucers, infant swings, and jumping equipment as these limit movement and the proper development of large motor skills. Research studies have found that infants who spend time in restrictive equipment show delays in physical development (Garrett, McElroy, & Staines, 2002).<br><br>Active play and supervised structured physical activities promote healthy weight, and overall fitness, including mental health, improved bone development, cardiovascular health, and development of social skills. Adults should provide opportunities for children to be physically active from the moment of birth. The National Association for Sports and Physical Educations recommends that toddlers should be engaged in at least 60 minutes of physical activity daily and should not remain sedentary for more than 60 minutes at a time; this excludes times of sleeping (NASPE, 2003). |

| | |
|---|---|
| **Benchmarks** | **The infant:**<br>1. shows increasing balance, strength, and coordination in activities such as gaining control of the head and body by turning head from side to side, lifting the head off the floor, sitting, and standing.<br>2. shows increasing control in large motor skills such as reaching, rolling over, crawling, standing, and walking.<br>**The toddler:**<br>3. shows increasing control in motor skills such as rolling, throwing, and kicking a ball and jumping.<br>4. shows increasing balance in activities such as running, climbing stairs, and moving a riding toy using his/her feet. |
| **Examples of Benchmarks** | Sarah is on her tummy on the floor. She raises her head to look at a caring adult. The adult lies on the floor in front of Sarah. As the adult calls Sarah's name, Sarah lifts her head and makes eye contact with the adult.<br><br>Lani is sitting on the floor. She pulls herself up to stand at the table. She lets go with one hand, wobbles, and then grabs the table again.<br><br>Jorge climbs on a riding toy without pedals and moves it across the room using his feet.<br><br>A caring adult sits Joseph on the floor with a few toys within and out of reach to encourage Joseph to practice his mobility skills.<br><br>During outside play, a caring adult plays a chasing game with Henry. The adult says, "I'm going to get you." Henry toddles off screaming in delight. |

**Adult Supports**

With infants and toddlers, adults:

- provide daily a variety of developmentally appropriate indoor and outdoor experiences and materials to stimulate *each* child's large muscle activities.
- provide help as needed for *each* child to practice large motor skills by using strategies and materials such as play gyms for reaching, surfaces to crawl over, stable surfaces to pull up, push toys, walk along toys, and riding toys.
- vary the height of toys offered to encourage movement by *each* child.
- reposition *each* infant often.
- place infants in safe settings that facilitate physical activity and do not restrict movement for prolonged periods of time.
- play with children to model and encourage the development of large muscles.
- provide adaptive large motor equipment that allows *each* child with physical disabilities to practice large motor skills.
- place infants on stomach multiple times a day for supervised play while awake and alert, changing position as the infant becomes distressed.

**References**


Adolph, K. E. (1997). Learning in the development of infant locomotion. *Monographs of the Society for Research in Child Development,* 62 (3, Serial No. 251).

Bertanthal, B. I., & Campos, J. J. (1990). A reexamination of fear and its relation to the visual cliff. *Psychophysiology,* 21, 413-417.

Garrett, M., McElroy, A. M., & Staines, A. (2002). Locomotor milestones and babywalkers: A cross sectional study. *British Medical Journal*, *324*, 1494.

National Association for Sports and Physical Education [NASPE]. (2003). *Kids in action:* Fitness for children birth to age five. Reston, VA: NASPE. Retrieved from http://www.aahperd.org/naspe/publications/teachingTools/upload/brochure.pdf

Rochat, P., & Goubet, N. (1995). Development of sitting and reaching in 5- to 6-month-old infants. *Infant Behavior & Development*, 18, 53 – 68.

## Area 1: Physical Well-Being and Motor Development

### *1.3 Small Motor Development*

| Standard | Infants and toddlers develop small motor skills. |
|---|---|
| **Rationale** | Small motor development includes skills related to the muscles in our fingers and hands such as picking up and holding objects. With the development of small motor skills, the infant gains self-help skills such as eating and picking up toys. Small motor skills affect the development of self, cognitive, and social skills (Smitsman, 2004). For example, after learning to reach, grasp, and pick up an object, the infant can use an object to learn its properties such as whether it is hard, soft, sweet, or cold. Similarly, when the infant learns to bring the hands together, the infant can take part in social activities such as clapping. These games, in turn, promote additional adult-infant interactions. As with large motor skills, maturation, visual perception skills, and experience affect the development of small motor skills (Smitsman, 2004). In addition, as infants and toddlers practice their small motor skills, they are building the necessary movements needed for early writing experiences. |
| **Benchmarks** | **The infant:**<br>1. uses hand-eye coordination to perform self-help and small motor tasks, such as eating food, picking up objects, placing objects on a surface, and transferring objects from hand to hand.<br>**The toddler:**<br>2. uses hand-eye coordination to perform self-help and small motor tasks such as eating with a fork or spoon, completing simple puzzles, stacking blocks, dressing self with assistance, scribbling with crayons or markers, and participating in fingerplays. |
| **Examples of Benchmarks** | A caring adult holds a ball out. Sawyer reaches for the ball.<br><br>Jamar is sitting at the table with a bowl of round cereal pieces. He picks up each piece by palming it, and then licks his hand clean.<br><br>Sarah is seated on the floor holding a rattle in her right hand. She uses her left hand to grab the rattle and lets go with her right hand. She repeats the transfer between her hands again and again.<br><br>During bottle feeding, a caring adult holds Tamara and lets her hold the bottle as she chooses.<br><br>Delano is playing with blocks. He puts one block on top of another one. The nearby, caring adult says, “Delano you stacked the blocks. Can you put another block on top?” Delano complies by placing another block on top. The adult says, “You have stacked three blocks – 1, 2, 3. Let’s see how high we can go.” |

| | |
|---|---|
| **Adult Supports** | With infants and toddlers, adults:<br>• provide a variety of experiences and materials for play and exploration that stimulate *each* child's small motor skills.<br>• provide help as needed for *each* child to be successful in small muscle experiences.<br>• provide time, equipment, and encouragement for *each* child to develop self-help skills such as undressing, feeding, and hand-washing.<br>• use strategies that allow each child to increase self-help and small motor skills.<br>• play with children to model and encourage small motor skills.<br>• clear the environment of choking hazards.<br>• provide careful supervision of all experiences. |
| **References** | Smitsman, A. (2004). In G. Bremner, & A. Fogel (Eds.). *Blackwell handbook of infant development* (pp. 71-98). Malden, MA: Blackwell. |

## Area 2: Approaches to Learning

### *2.1 Curiosity and Initiative*

| Standard | Infants and toddlers express curiosity and initiative in exploring the environment and learning new skills. |
|---|---|
| **Rationale** | Infants and toddlers are intrinsically motivated to explore the world around them; investigating and engaging with the objects and people in their environment and gathering knowledge in the process. Even the youngest children, make active choices and decisions (Lockhart, 2011). As part of their exploring, infants typically put anything into their mouths. After repeated exposure to the same toys, infants and toddlers typically explore new ways of using these materials (Piaget, 1952). Toddlers may explore objects vigorously, occasionally breaking objects.<br><br>The infant gains interest in exploring objects through experiences that are different from those that lead to exploring people (Wachs & Combs, 1995). Infants who have spent a lot of time with caring adults who name, show, and demonstrate objects typically spend more time playing with adults and objects together. However, these infants spend less time exploring objects on their own. In contrast, infants in environments with lots of interesting objects to explore typically spend more time exploring those objects. In order to build infants' and toddlers' curiosity, interest, and initiative in exploring new experiences, adults should regularly observe children. This information should then guide the adults in providing infants and toddlers with space, time, and materials to explore as well as opportunities to play jointly with adults and objects. |
| **Benchmarks** | **The infant or toddler:**<br>1. shows interest in people, objects, and events.<br>2. uses their senses to choose, explore, and manipulate a variety of objects or toys in a variety of ways.<br>3. actively plays with or near adults, other children, and materials. |
| **Examples of Benchmarks** | A caring adult places her hands in front of her face. Shannon watches the adult move her hands, saying "Peek-a-boo." Shannon laughs. The adult repeats the action and Shannon laughs again.<br><br>A caring adult has attached a new "busy box" to the wall. Ricki pokes each button, waits for the sound or picture, then pokes a different button.<br><br>Mehar sits on a log and watches as a small bird eats from a nearby birdfeeder. Once it is done, Mehar watches as it flies and lands in tree. She runs to the tree and watches it, pointing and shouting, "Pakshi, pakshi" (bird, bird).<br><br>Different colored carpet squares are arranged on the floor. Selena stands on one and begins to jump from square to square, saying, "Hop, hop, hop" each time she jumps. |

| | |
|---|---|
| **Adult Supports** | With infants and toddlers, adults:<br>• prepare a safe, hazard-free environment with a variety of developmentally appropriate familiar and new materials that can be used in different ways to encourage *each* child's choices, play, and exploration.<br>• watch children to learn their interests and needs, ask the child or self what is desired or needed, and adapt experiences and routines to meet *each* child's needs and interests.<br>• respect the process of *each* child's exploration without expecting finished "products".<br>• support *each* child's exploration through smiling, nodding, and talking.<br>• clean and sanitize mouthed objects after *each* child.<br>• protect *each* child's exploration through frequent equipment, toy, and material checks for hazards including small parts, broken parts, and entanglement or strangulation hazards.<br>• directly supervise infants and toddlers by sight and hearing at all times, even when the children are going to sleep, sleeping, are beginning to wake up, or are indoors or outdoors. |
| **References** | Lockhart, S. (2011). Active learning for infants and toddlers. *ReSource*, Spring 2011, 5-10.<br><br>Piaget, J. (1952). *The origins of intelligence.* New York, NY: Norton.<br><br>Wachs, T. D., & Combs, T. T. (1995). The domains of infant mastery motivation. In R. H. MacTurk, Y G. A. Morgan (Eds.). *Mastery motivation: Origins, conceptualizations, and applications* (pp. 147-164). Norwood, NJ: Ablex. |

## Area 2: Approaches to Learning

### *2.2 Engagement and Persistence*

| Standard | Infants and toddlers purposefully choose, engage, and persist in play, experiences, and routines. |
|---|---|
| **Rationale** | Learning occurs when children can manipulate and choose materials and can freely use their whole bodies and all their senses (Lockhart, 2011). Infants and toddlers usually show pleasure when they are successful at manipulating their environment and at overcoming barriers to reach a goal. Infants and toddlers are motivated to explore their surroundings, to overcome obstacles, and to master their environment (White, 1959). Both infants' early persistence and adults' teaching predict children's cognitive abilities at 14 months (Banerjee & Tamis-LeMonda, 2007).<br><br>Toddlers differ in their interest in engaging and persisting in activities as a result of differences in temperament and in the styles of caregiving that they have received (Stipek & Greene, 2001). For example, toddlers show more persistence in activities when caregivers promptly respond to their requests for help (Lutkenhaus, 1984). Adults foster young children's engagement and persistence by providing sufficient interesting materials for young children to use, and time for them to explore these materials as long as they are interested. Adults may need to provide physical adaptations to enable *each* child to engage and persist in the exploration of materials. |
| **Benchmarks** | **The infant or toddler:**<br>1. holds attention of familiar adult; for example, through eye contact or vocalizations.<br>2. repeats familiar and newly learned experiences.<br>3. maintains focus on people or objects of interest, play experiences, or novel events.<br>4. demonstrates persistence with challenging materials and experiences. |
| **Examples of Benchmarks** | A caring adult smiles and talks to Madeleine as she changes her diaper. Madeleine smiles and says, "Ahgoo." The adult smiles and repeats "Ahgoo." The adult and Madeleine continue to exchange sounds.<br><br>Jose puts his head through the neck hole and pulls his shirt over his head. He puts one arm in each sleeve and says, "I did it!" The adult responds, "You put your shirt on all by yourself! Now let's turn it around so the picture is in front."<br><br>Raeann crawls over to the pop-up toy and pushes the buttons several times with little success. She looks to a nearby adult. The adult helps Raeann push each button using hand-over-hand assistance. The adult moves away and Raeann continues to push the buttons, with more success in opening the pop-ups.<br><br>Leilani lets go of the adult's hand, takes a wobbly step, and falls down. She pushes up to standing and takes two steps before falling down again. |

**Adult Supports**

With infants and toddlers, adults:

- provide protected spaces and adequate time for *each* child to choose developmentally appropriate toys and to play without being interrupted.
- introduce developmentally appropriate toys multiple times to determine *each* child's interest.
- allow *each* child to take the lead in play.
- provide additional support and assistance for *each* child to engage and persist with toys.
- support children's choices by paying close attention to children's actions and gestures, interpreting their preferences, and building on them.
- play and interact with children often.
- talk about and model healthy and safe behaviors throughout each day.
- use words of encouragement to support children in their experiences and routines.

**References**


Banerjee, P. N., & Tamis-LeMonda, C. S. (2007). Infants' persistence and mothers' teaching as predictors of toddlers' cognitive development. *Infant Behavior and Development,* 30, 479-491.

Lockhart, S. (2011). Active learning for infants and toddlers. *ReSource*, Spring 2011, 5-10.

Lutkenhaus, P. (1984). Pleasure derived from mastery in three-year-olds: Its function for persistence and the influence of maternal behavior. *International Journal of Behavioral Development,* 7, 343-358.

Stipek, D., & Greene, J. (2001). Achievement motivation in early childhood: Cause for concern or celebration. In S. Golbeck (Ed.). *Psychological perspectives on early childhood education: Reframing dilemmas in research and practice* (pp. 64-91). Mahwah, NJ: Erlbaum.

White, R. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66, 267-333.

## Area 2: Approaches to Learning

### *2.3 Reasoning and Problem Solving*

| Standard | Infants and toddlers demonstrate strategies for reasoning and problem solving. |
|---|---|
| **Rationale** | Infants show the beginning of problem solving when they use a series of actions to reach a goal; for example, pulling a string to reach an attached toy (Piaget, 1952). Infants will imitate the problem solving behaviors shown by others if the behaviors are within their abilities (Meltzoff, 1988). Toddlers deliberately vary their actions, observing the effects of each change in trial and error. Through active experimentation with materials, infants and toddlers will think through trial and error solutions with similar materials (Uzgiris & Hunt, 1975).<br><br>Caring adults help young children develop reasoning and problem solving skills by making problem solving opportunities available as children explore a wide variety of materials, by encouraging infants and toddlers to experiment with solutions, by not intervening too quickly to solve problems for them, and by helping them notice the results of their experiments (Piaget, 1980). During problem solving opportunities, adults talk through the solutions and model appropriate behavior. |
| **Benchmarks** | **The infant or toddler:**<br>1. uses an object, action, or adult to accomplish tasks, such as pulling a string to reach a toy or pushing a button to hear a sound.<br>2. experiments to find a solution to a problem.<br>3. imitates an adult action to solve a problem.<br>4. recognizes difficulties and adjusts actions to correct mistakes.<br>5. seeks and accepts help when encountering a problem beyond his/her ability to solve independently. |
| **Examples of Benchmarks** | Melissa is trying to walk up the ramp. She loses her balance and sits down. She crawls up the ramp.<br><br>Antoine lies on a blanket on the floor. He reaches for a toy on the edge of the blanket. When he cannot reach it, he grasps the blanket and pulls it toward him until the toy is in reach. |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Robin takes her snack plate to the trash to scrape off the crumbs. She shakes the plate but cannot make the crumbs fall off. The adult cleans other plates with a scraper. Robin reaches for the scraper and the adult lets her use it to scrape her own plate.<br><br>Adaya has a small pile of Duplos with her on the floor. She has connected several of them in a tower. As she adds the 8th block, she presses and the tower crumbles. She builds the tower again, with the same result. The third time she builds the tower, she holds the 8th block out to the adult.<br><br>Ben goes to the drawer where the sippy cup lids are stored and brings a lid to a caring adult. The adult says, "Ben are you thirsty? Would you like a drink? Let's get you some water." Ben follows the adult to the sink. |
| **Adult Supports** | With infants and toddlers, adults:<br>• provide developmentally appropriate toys and materials that can be used in different ways to encourage problem solving and exploration.<br>• acknowledge new learning.<br>• wait for the child to signal for help.<br>• guide the learning process rather than provide solutions.<br>• talk through problems and how to find a solution.<br>• stay near children to offer support and assistance as needed. |
| **References** | Meltzoff, A. (1988). Infant imitation after a one-week delay: Long-term memory for novel acts and multiple stimuli. *Developmental Psychology,* 24, 470-476.<br><br>Piaget, J. (1952). *The origins of intelligence.* New York, NY: Norton.<br><br>Piaget, J. (1980). *Experiments in contradiction.* Chicago, IL: University of Chicago Press.<br><br>Uzgiris, I. C., & Hunt, J. M. (1975). *Assessment in infancy: Ordinal scales of psychological development.* Urbana, IL: University of Illinois Press. |

## Area 2: Approaches to Learning

### *2.4 Play and Senses*

| Standard | Infants and toddlers engage in play to learn. |
|---|---|
| **Rationale** | Play is fundamental and essential for infants and toddlers to develop healthy active brains, bodies, and relationships (Ginsberg, 2007). Through play, children learn about themselves and the world through self-created experiences and positive social interactions with peers and nurturing adults. For infants, play is voluntary and self-motivating (Young & Hauser-Cram, 2006). Through play, infants and toddlers typically build understanding and skills in cognitive, communication, motor, social, and emotional development. Piaget (1971) argued that play allows infants and toddlers to build their understanding of how things work, including their own bodies, and allows them to test their understandings. Infants and toddlers who are allowed to spend most of the day freely moving arms and legs, while exploring their physical environment designed for maximum safety, develop the most advanced motor and cognitive skills needed for later development. Given time, space, supportive adults, open-ended materials, and safe, yet challenging environments, children develop confidence in themselves, competencies to master their environment, deep-seated connectedness to and caring about others, and the ability to create and propagate environments of love, safety, security, and resilience (Ginsberg, 2007). |
| **Benchmarks** | **The infant or toddler:**<br>1. uses sights, smells, sounds, textures, and tastes to explore and experience routines and materials within the environment.<br>2. chooses and participates in a variety of play experiences.<br>3. imitates behaviors in play.<br>4. repeats experiences with materials, adults, and peers to build knowledge and understanding of the world around them. |
| **Examples of Benchmarks** | Kayla turns the pages of the touch-and-feel book. She touches the fur on the lamb and says, “Baaa.”<br><br>Cyndi pulls out the nesting cubes. She carefully takes apart each cube and makes a circle of them all around her.<br><br>While reading a book to Amari, the adult uses a puppet to act out certain parts of the story. Amari crawls over to the puppet bin, and pulls one out. He fidgets for a moment to find the opening and slides it over his hand. Amari wiggles his hand inside, looks to the adult, and smiles.<br><br>An adult starts doing the actions to Itsy Bitsy Spider. Joseph watches, and then imitates the actions with the adult as the adult sings the rhyme. |

**Adult Supports**

With infants and toddlers, adults:

- prepare the physical environment to encourage children's play by providing a variety of non-toxic, developmentally appropriate materials that are child accessible and sufficient, as well as facilitate development in all areas.
- provide daily opportunities for play, including indoor/outdoor play, active/quiet play, and large/small motor play for *each* child.
- interact often with children during play; playing with the child and talking about the experience.
- adapt materials as needed so that *each* child can explore the environment through play.
- engage in turn-taking games such as making faces, vocalizing, and imitating actions with *each* child.
- match activities to the interests and abilities of *each* infant or toddler, occasionally showing the next steps as needed.
- safeguard the health and safety of *each* child by introducing non-toxic, developmentally appropriate materials and experiences to encourage use of the senses.

**References**


Ginsburg, K. R. (with the Committee on Communications and the Committee on Psychosocial Aspects of Child and Family Health). (2007). The importance of play in promoting healthy child development and maintaining strong parent–child bonds. *Pediatrics, 119,* 182–191.

Piaget, J. (1971). *Biology and knowledge.* Chicago, IL: University of Chicago Press.

Young, J. M., &Hauser-Cram, P. (2006). Mother-child interaction as a predictor of mastery motivation in children with disabilities born preterm. *Journal of Early Intervention, 28*, 252-263

## Area 3: Social and Emotional Development

### *3.1 Self*

| Standard | Infants and toddlers display a positive sense of self. |
|---|---|
| **Rationale** | For very young children, acceptance, emotional attachment, and ongoing nurturing are the primary basis for a positive sense of self. The way caring adults relate to infants and toddlers influences the way they grow up to view themselves. Using a child's name while talking with him/her helps the child realize they are a separate individual. Caring adults that provide safe, stable, predictable, and compassionate environments support infants' and toddlers' growing independence and promote a healthy sense of self as well as connections with others. Infants and toddlers learn that they can make things happen and begin to initiate activities. Infants usually prefer adults who imitate their activities, and when adults imitate infants, the infants realize that they can make things happen (Meltzoff, 1990).<br><br>During the second year, most toddlers learn to recognize images of themselves. They also demand the right to make some independent choices and to refuse some experiences (Bullock & Lutkenhaus, 1990). Making choices helps develop a sense of independence and autonomy, but it is also important to keep the choices manageable because too many choices can be overwhelming. Infants and toddlers usually learn to choose activities that they can do successfully, but rely heavily on adult reactions to their actions (Stipek, Gralinski, & Kopp, 1990). Caring adults foster the development of self by imitating infants and by respecting their choices (Bronson, 2000). Toddlers develop self-awareness and self-understanding based upon the evaluations of others, especially those adults to whom the child is attached emotionally (Thompson, 2001). Adults need to accommodate each child's distinct blend of personality characteristics, interests, and abilities. |
| **Benchmarks** | **The infant or toddler:**<br>1. responds to familiar adults' and children's interactions through using behaviors such as gazing, cuddling, and accepting assistance.<br>2. explores his/her own body.<br>3. shows awareness of self, such as responding to own image in mirror.<br>4. shows preferences for toys and experiences.<br>5. expresses enjoyment.<br>6. begins to recognize own power by showing interest in making choices or expressing preferences. |

| | |
|---|---|
| **Examples of Benchmarks** | Annie turns her head and smiles when her mother calls her name.<br><br>Alex is kicking the sides of the crib. He looks at his feet and starts to suck on his toes. A caring adult says admiringly, “Alex, has encontrado los dedos” (you found your toes).<br><br>Mai looks at the mirror. She smiles, reaches for her reflection, pats her reflection, and pats her face.<br><br>The toys in the room are accessible to all children. Fatima sees the stacking rings, which she really likes. She takes the stacking toy off a shelf, sits down on the floor, and takes off the rings.<br><br>Greg picks up a cube and tries to force it through the round hole of a sorting toy. He looks at the cube, looks at the lid, and then puts the cube through the square hole. He turns to the adult and smiles. A caring adult responds: “You did it, Greg! You found the square hole.”<br><br>Drew tries to grab a toy from another child. A caring adult intervenes and offers Drew two similar toys. He picks one of them and begins to play. |
| **Adult Supports** | With infants and toddlers, adults:<br>• observe *each* child and respond based on individual needs throughout daily routines.<br>• use *each* child’s name often during play and interactions.<br>• point out and correctly name *each* child’s body parts using their home language during daily routines such as diapering, toileting, and bathing.<br>• give opportunities for *each* child to build an awareness of self and familiar others through touch, photographs, mirrors, and video and sound recordings.<br>• provide opportunities for *each* child to choose toys and/or experiences during playtime.<br>• express pleasure in the experiences and accomplishments of *each* child.<br>• support children’s cultural identities through working with family members to support children’s needs.<br>• talk positively about *each* child’s family culture. |

## References


Bronson, M. (2000). *Self-regulation in early childhood: Nature and nurture.* New York, NY: Guilford Press.

Bullock, M., & Lütkenhaus, P. (1990). Who am I? Self-understanding in toddlers. *Merrill-Palmer Quarterly: Journal of Developmental Psychology*.

Meltzoff, A. (1990). Foundations for developing a concept of self: The role of imitation in relating self to other and the value of social mirroring, social modeling, and self practice in infancy. In D. Cicchetti, & M. Beeghly (Eds.). *The self in transition: Infancy to childhood* (pp. 139-164). Chicago, IL: University of Chicago Press.

Stipek, D., Gralinski, J. H., & Kopp, C. G. (1990). Self-concept development in the toddler years. *Developmental Psychology, 26*, 972-977.

Thompson, R. A. (2001). Development in the first years of life. In R. Behrman (Ed.). *The future of children: Caring for infants and toddlers* (pp. 21-34). Los Altos, CA: The David and Lucile Packard Foundation.

## Area 3: Social and Emotional Development

### *3.2 Self-Regulation*

| Standard | Infants and toddlers show increasing awareness of and ability to express emotions in socially and culturally appropriate ways. |
|---|---|
| **Rationale** | From birth, infants and toddlers show individual differences in the ability to self-regulate. Self-regulation refers to infants' abilities to respond in an organized, effective way to events in their world and to become aware of their emotions in order to help them understand what they need and want and how to get it in socially acceptable ways. Self-regulation is one component of temperament (Thomas, Chess, & Birch, 1970). Temperament refers to individual styles of behavior, for example, how active children are, how easily they accept new things or adapt to changes, and their general mood. Children's temperaments are present from birth. To build children's self-regulation, adults recognize each infant or toddler's individual temperament and adjust their responses to best fit *each* child's temperament. Infants and toddlers who receive sensitive and responsive care from adults, develop secure attachments and are better able to control and effectively express their emotions (Thompson, 1998).<br><br>Toddlers usually make great gains in the ability to regulate their behavior. Self-regulation increases as they see themselves causing changes and can focus on the results of those actions (Bullock & Lütkenhaus, 1988). Infants and toddlers typically show early self-regulation skills during experiences that lead to a desired goal or a desired activity (Thompson, 2001). As toddlers observe the emotional responses of others, they usually increase the variety of emotions for their responses to include guilt, embarrassment, pride, and shame (Thompson, 2001). Caring adults provide the physical contact, sensitive social stimulation, and responsiveness needed to foster early self-regulation (Bronson, 2000). |

| | |
|---|---|
| **Benchmarks** | **The infant or toddler:**<br>1. indicates need for assistance through actions such as crying, gesturing, vocalizing, using words, or approaching familiar adults.<br>2. comforts him or herself when distressed or tired by actions such as sucking, stroking a blanket, or hugging a toy.<br>3. responds to emotions expressed by others, for example, by comforting another child or crying in response to the cries of others.<br>4. shows increasing ability to recognize own feelings, including simple (e.g., mad, glad) and complex (e.g., excited, frustrated, disappointed) feelings.<br>5. begins to express a range and variety of feelings and emotions through body language, facial expressions, actions, and/or verbal responses.<br>6. begins to control behavior through following simple rules and limits in a variety of settings.<br>7. begins to transition between feeling states with guidance from a caring adult. |
| **Examples of Benchmarks** | Caitlin's mother leaves the room. Caitlin starts to pout and suck her thumb to calm herself. She walks over to a caring adult and holds her hands up. The adult hugs her and says, "It looks like you are sad that mom had to go. She will be back after work." Caitlin holds on to the adult. The adult speaks to her quietly and Caitlin begins to calm.<br><br>Jason is tired. He gets his blanket, lies down on his cot, and rubs the binding on the blanket.<br><br>Lisa starts to clap and smile when she finally gets one block to stack on top of another. Juan, who is sitting next to her playing with his keyboard, looks up, smiles, and claps with her.<br><br>Olivia needs help putting on her shoes. She takes her shoes to her older brother Jayden for help.<br><br>La'Chara starts to climb on top of the table. A caring adult guides her down, saying, "You can sit on a chair or on the floor". La'Chara sits on the chair.<br><br>Minh's dad comes into the room. Minh starts jumping up and down. A nearby, caring adult asks, "Are you excited to see Daddy?" Minh nods her head yes.<br><br>Caera and Alex are looking at a birdhouse in the outdoor nature area when a bird suddenly flies out. Both children begin to cry and run away. The adult responds by hugging them and says, "Oh my, when that bird flew out you must have been frightened. You are both safe. Let's look in the trees to see if we can find the bird." Both children look relieved and begin to look for the bird. |

| | |
|---|---|
| **Examples of benchmarks (continued)** | Gustav does not get to ride the tricycle he wants. He begins stomping his feet and yells, "No, no, no. Mine!" A caring adult puts a hand on his shoulder to calm him, and then takes him by the hand and leads him to the sandbox to play. While walking to the sandbox, the adult says, "It's okay to feel frustrated that you cannot ride the trike now, but the sandbox is fun, too." Gustav calms down and begins to play in the sandbox. |
| **Adult Supports** | With infants and toddlers, adults:<br>• provide a consistent, predictable, caring, and responsive environment for *each* child.<br>• respond promptly to *each* child's needs.<br>• model the expression of their own emotions in socially appropriate ways.<br>• encourage *each* child to express emotions in socially and culturally appropriate ways.<br>• set, discuss, remind, and follow through on simple rules and limits.<br>• provide consistent routines and expectations for daily activities and experiences.<br>• demonstrate an awareness of cultural differences for expressing feelings.<br>• respond to child distress by listening to the child while maintaining closeness and a calm, soothing voice.<br>• inform children when there is a change in routine using a variety of techniques such as picture cues.<br>• use feeling words to acknowledge and label *each* child's emotions using terms that are familiar to the child. |
| **References** | Bronson, M. (2000). *Self-regulation in early childhood: Nature and nurture.* New York, NY: Guilford Press.<br><br>Bullock, M., & Lütkenhaus, P. (1988). The development of volitional behaviors in the toddler years. *Child Development, 59*, 664-674.<br><br>Thomas, A., Chess, S., & Birch, H. (1970). The origins of personality. *Scientific American, 223*, 102-109.<br><br>Thompson, R. A. (1998). Early sociopersonality development. In W. Damon, & N. Eisenberg (Eds.). *Handbook of child psychology: Vol. 3: Social emotional, and personality development* (pp. 25-104). New York, NY: Wiley.<br><br>Thompson, R. A. (2001). Development in the first years of life. In R. Behrman (Ed.). *The future of children: Caring for infants and toddlers* (pp. 21-34). Los Altos, CA: The David and Lucile Packard Foundation. |

## Area 3: Social and Emotional Development

### *3.3 Relationships with Adults*

| Standard | Infants and toddlers relate positively with significant adults. |
|---|---|
| **Rationale** | Over the first year of life, infants and toddlers can become attached to several consistent, responsive, and sensitive adults. Attachment is the strong, emotional bond that is formed between an infant or toddler and a nurturing, responsive adult (Carter, 2001). Research suggests that secure attachments to adult caregivers are related to optimal social and cognitive growth (Howes & Smith, 1995). In new situations, or with new adults, infants prefer to be close to familiar adults with whom they have developed an attachment, sometimes seeking physical contact with them. Attachment helps infants regulate their emotions, learn to interact with objects and people in their environment, and become aware of themselves as people (Thompson, 1998; Vacca, 2001). The infant typically uses the secure attachment to familiar adults as a base to explore the environment while returning occasionally to re-establish physical or visual contact with the familiar person (Ainsworth, Blehar, Waters, & Wall, 1978; Vacca, 2001).<br><br>Infants and toddlers are less likely to form attachments when frequent caregiver changes occur (Raikes, 1993; Cryer, Hurwitz, & Wolery, 2001); for example frequent classroom changes that can occur in child care settings. The loss of a particular caregiver with whom a child has established a trusting relationship can affect the child's feelings of security and can also affect the development of cognitive and social skills (Howes, Hamilton, & Philipsen, 1998; Howes & Smith, 1995). This is due to valuable learning time being lost during the time between when one caregiver leaves and the adjustment to a new caregiver. When children have frequent adjustments, their energy is consumed with establishing security rather than with exploration and learning (Cryer, Hurwitz, & Wolery, 2001). |
| **Benchmarks** | **The infant or toddler:**<br>1. distinguishes between familiar and unfamiliar adults; for example, is comforted by the sight of the familiar adult or the sound of the familiar adult's voice.<br>2. accepts assistance and comfort from familiar adults.<br>3. seeks and maintains contact with familiar adults; for example, by looking at the adult, hearing the adult's voice, or touching the adult.<br>4. shows discomfort at separations from familiar adults.<br>5. seeks help from familiar adults in unfamiliar situations.<br>6. explores the environment, both indoors and outdoors, but may return to a caring adult periodically for security.<br>7. begins to imitate or portray roles and relationships.<br>8. imitates adult behaviors. |

| | |
|---|---|
| **Examples of Benchmarks** | Misha is playing with other children in her infant classroom. Several parents walk in together to pick up their children. Misha looks concerned at first, but then smiles when she sees her mother.<br><br>As Danny plays in the exam room, the doctor walks in, and Danny reaches for his dad. Dad gives Danny a hug and introduces the doctor. Danny stays close to his dad during the appointment.<br><br>Jonathan's mother leaves the room. He follows her to the door and cries.<br><br>Jerika picks up the stuffed bunny, rubs the bunny's back, and says, "It okay, it okay."<br><br>Miguel hands the box of crackers to the adult to get help opening it.<br><br>Solvig is at the community playground and goes to the sandbox to play. Every few minutes, she looks over her shoulder to make sure her grandmother is still there. |
| **Adult Supports** | With infants and toddlers, adults:<br>• interact and play with *each* child daily.<br>• provide stable, consistent, responsive, and sensitive care to *each* child.<br>• talk to and hold *each* child affectionately during caregiving routines and play experiences.<br>• respond appropriately to *each* child's attempts to make contact.<br>• help *each* child transition between care provided by different adults.<br>• model healthy relationship skills.<br>• practice primary caregiving and ensure continuity of care.<br>• limit the number of adults providing care. |

## References


Ainsworth, M., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment.* Hillsdale, NJ: Erlbaum.

Carter, M. (2001). Right from the start: Changing our approach to staff orientation. *Child Care Information Exchange*, *141*, 79-81.

Cryer, D., Hurwitz, S., & Wolery, M. (2001). Continuity of caregiver for infants and toddlers in center-based child care: Report on a survey of center practices. *Early Childhood Research Quarterly*, *15*(4), 497-514.

Howes, C., Hamilton, C. E., & Phillipsen, L. C. (1998). Stability and continuity of child-caregiver and child-peer relationships. *Child Development*, *69*(2), 418-426.

Howes, C., & Smith, E. (1995). Relations among child care quality, teacher behavior, children's play activities, emotional security, and cognitive activity in child care. *Early Childhood Research Quarterly, 10*, 381-404.

Raikes, H. (1993). Relationship duration in infant care: Time with a high-ability teacher and infant-teacher attachment. *Early Childhood Research Quarterly*, *8*(3), 309-325.

Thompson, R. A. (1998). Early sociopersonality development. In W. Damon, & N. Eisenberg (Eds.). *Handbook of child psychology: Vol. 3: Social emotional, and personality development* (pp. 25-104). New York, NY: Wiley.

Vacca, J. J. (2001). Promoting positive infant-caregiver attachment: The role of the early interventionist and recommendations for parent training. *Infants & Young Children*, *13*(4), 1-10.

## Area 3: Social and Emotional Development

### *3.4 Relationships with Children*

| Standard | Infants and toddlers respond to and initiate interactions with other children. |
|---|---|
| **Rationale** | Interactions between infants during the first year are usually simple and brief. Infants often make eye contact with other infants and typically show distress when they see the distress of another infant. Later, they typically exchange smiles and vocalizations with other infants. Toddlers, typically, will imitate another infant's actions, and begin some reciprocal play (Lamb, Bornstein, & Teti, 2002). However, most toddlers show very limited ability to take turns or share materials.<br><br>Toddler friendships usually develop among peers who engage in positive interactions with each other. However, as many as 50% of the peer interactions among toddlers involve conflicts and typically involve possession of objects (Coie & Dodge, 1998). In preventing a peer from taking a toy, toddlers usually find verbal responses such as "NO!" more effective than physical resistance such as holding on to the toy. During the toddler years, physical aggression tends to decrease, but verbal aggression tends to increase (Coie & Dodge, 1998). Adults help children develop peer relationships by providing supervised opportunities for infants and toddlers to interact in an environment with adequate space and materials to minimize conflicts (Eckerman & Peterman, 2004). |
| **Benchmarks** | **The infant or toddler:**<br>1. initiates interactions with other children through gestures, vocalizations, facial expressions, and/or body movements.<br>2. accepts help from familiar adults in interactions with other children.<br>3. begins to demonstrate empathy for others.<br>4. starts interacting and playing with peers, including showing interest in them or calling them by name.<br>5. develops an awareness of his/her behavior and how it affects others.<br>6. imitates other children's behaviors. |

| | |
|---|---|
| **Examples of Benchmarks** | Robin scoots over to Delora and touches her gently on the head.<br><br>Kathy takes the truck away from Jamar. Jamar shouts, “No!” and grabs the truck back. Kathy screams, “Mine.” A caring adult says, “Kathy, here is another truck that you can use. Jamar is still playing with this one.” Each plays with his or her own truck.<br><br>Zach is startled by a noise and begins to cry. Beth leans over and pats Zach’s hand. They smile at one another.<br><br>Helena brings a ball over to Javier and says, “Javier play.”<br><br>Ali takes a toy from Evangeline and Evangeline cries. Ali gives it back and finds another toy. |
| **Adult Supports** | With infants and toddlers, adults:<br>• provide opportunities for children to play with similar materials in the same area.<br>• assist children in turn-taking experiences.<br>• use active listening to resolve conflicts and help ensure that *each* child’s messages are understood by others.<br>• provide enough materials for multiple children to play with the same toy/activity.<br>• recognize and model sharing behaviors.<br>• allow children to play with a toy as long as they desire.<br>• model relationship skills and caring behaviors. |
| **References** | Coie, J. D., & Dodge, K. A. (1998). Aggression and antisocial behavior. In W. Damon, & N. Eisenberg, N. (Eds.). *Handbook of child psychology. Vol. III. Social, emotional, and personality development* (pp. 619-700). New York, NY: Wiley.<br><br>Eckerman, C., & Peterman, K. (2004). Peers and infant social/communication development. In G. Bremner, & A. Fogel (Eds.). *Blackwell handbook of infant development* (pp. 326-350). Malden, MA: Blackwell.<br><br>Lamb, M. E., Bornstein, M. H., & Teti, D. M. (2002). *Development in infancy: An introduction* . 4th ed. Mahwah, NJ: Lawrence Erlbaum Associates Publishers. |

## Area 4: Communication, Language, and Literacy

### *4.1 Language Understanding and Use*

| Standard | Infants and toddlers understand and use communication and language for a variety of purposes. |
|---|---|
| **Rationale** | Through interaction with caring and nurturing adults, infants and toddlers acquire both listening (receptive language) and speaking (expressive language) vocabulary. Young infants typically make sounds, take turns in "conversations" with adults, and respond to adult vocalizations (Lock, 2004). Older infants use gestures, such as pointing or reaching up, as part of communication (Camaioni, 2004). Infants typically develop some listening vocabulary before their first birthday. Most infants move from one-word to two-word to three-word phrases while some toddlers begin talking in sentence-length phrases (Camaioni, 2004). Language use influences and is influenced by cognitive development (Shonkoff & Phillips, 2000). When caring adults talk to infants and toddlers during routine experiences such as diaper changing, dressing, or feeding, infants and toddlers develop larger vocabularies (Hoff-Ginsberg, 1991). Adults influence the types, use, and rate of learning language, especially when they focus on conversations within play experiences that interest the infant (Hart & Risley, 1995).<br><br>In recent years, there has been an increase in the linguistic, ethnic, and cultural diversity of infants and toddlers in early care and education programs. Dual language acquisition, the development of skills and knowledge in two or more languages during the first five years of life, is increasing as well. Building relationships with families who come from a different culture and/or use a different language will take more time, but will result in better outcomes (Tabors, 2008). Caring adults need to understand the advantages of maintaining and using a child's primary home language as well as how infants and toddlers learn a second language. Use of a child's home language supports infant and toddler development through building a sense of self within their family (Pearson & Mangione, 2006). Young children can learn two languages at once, although there are individual differences in the rate and manner in which they are learned.<br><br>It is important for caring adults to understand that communication patterns and expectations vary between cultures (Rogoff, Mistry, Goncu, & Mosier, 1993). For instance, expectations for verbal versus non-verbal responses and whether a child speaks before being spoken to first are examples of cultural differences. Adults should make decisions about their interaction styles based on the family's beliefs, values, and practices in regard to child development and learning (Division of Early Childhood, 2004).<br><br>Caring adults must monitor and respond to signs of early hearing problems in infants and toddlers because hearing problems can limit language, cognitive, social, and emotional development. Children with any degree of hearing impairment benefit from early intervention services (Farran, 2000). Caring adults can use sign language and adaptive communication devices to foster the development of communication skills in children with hearing impairments and/or communication delays. |

| | |
|---|---|
| **Benchmarks** | **The infant or toddler:**<br>1. responds to the vocalizations and communications, verbal and nonverbal, of familiar adults.<br>2. uses vocalizations and gestures to gain attention from others.<br>3. uses vocalizations and gestures to communicate wants and needs.<br>4. increases both listening (receptive) and speaking (expressive) vocabulary.<br>**The toddler also:**<br>5. progresses to using words then simple sentences to communicate.<br>6. participates in conversations, using both receptive (listening) and expressive (speaking) language skills.<br>7. answers simple questions.<br>8. follows simple directions. |
| **Examples of Benchmarks** | Gail stands by the couch, watching a caring adult read a book to Sandi. Gail says, "Me read." The adult asks, "Would you like to join us, Gail? You can sit right here." Gail smiles and climbs on to the couch next to the adult.<br><br>Kaili is sitting near a familiar adult. She begins to wave her hands. The adult smiles at her and responds, "Hi Kaili. Te veo (I see you)." Kaili waves her hands more vigorously and smiles. The adult waves his hands, still smiling, and says, "Estamos jugando (we're playing)". Kaili continues to wave her hands and giggles. The adult joins in the laughter.<br><br>Carrie looks at the small kitten that Alyssa brought today. Carrie says, "Puppy." The caring adult says, "It is a little like the puppy at your house, Carrie. But this is a kitten." Carrie looks and says, "Kitten."<br><br>Joshua is sitting in a chair. He watches a caring adult move around the room while she describes what she is doing, such as "Are you looking for me? Here I am getting lunch for us." Joshua coos and pounds the table. She responds with, "Oh are you hungry? It will be time to eat soon."<br><br>While playing outside in the sandbox. Julian holds up a bucket with sand in it. A familiar adult says, "Oh, you found a bucket with sand. The sand is smooth. Can you fill the bucket with more sand?"<br><br>During snack time Ana signs "more." A caring adult responds with sign language for more and verbalizes, "More? Do you want more, Ana?" |

**Adult Supports**

With infants and toddlers, adults:

- describe children's routines, experiences, and play in English and in *each* child's home language.
- repeat and expand *each* child's vocalizations, introducing new vocabulary as appropriate.
- respond promptly to children's vocalizations and communication.
- value and respect *each* child's home language.
- learn key words, phrases, and sentences in *each* child's home language.
- intentionally support bilingualism through experiences such as reading stories in the home language of *each* child.
- incorporate the diversity of families' languages and culture into the environment.
- help families understand the benefits of learning two languages.
- make eye contact with *each* child while speaking or listening, with considerations for cultural practices and special needs.
- individualize strategies to facilitate communication with *each* child.
- acknowledge and expand *each* child's response or comments to demonstrate understanding and prompt more conversation.
- place themselves at the child's eye level when speaking with him/her whenever possible.

**References**


Camaioni, L. (2004). Early language. In G. Bremner, & A. Fogel (Eds.). *Blackwell handbook of infant development* (pp. 379-426). Malden, MA: Blackwell.

Division of Early Childhood. (2004). Responsiveness to family, culture, values, and education. *Division of Early Childhood Concept Paper,* Oct. 2004.

Farran, D. (2000). Another decade of intervention. In J. Shonkoff, & S. Meisels (Eds.). *Handbook of early intervention,* pp. 510-548. New York: Cambridge University Press.

Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experiences of young American children.* Baltimore, MD: Paul H. Brookes.

Hoff-Ginsberg, E. (1991). Mother-child conversation in different social classes and communicative settings. *Child Development,* 62, 782-796.

**References (continued)**


Lock, A. (2004). Preverbal communication. In G. Bremner, & A. Fogel (Eds.). *Blackwell handbook of infant development* (pp. 378-403). Malden, MA: Blackwell.

Pearson, B.Z., & Mangione, P.L. (2006). Nurturing very young children who experience more than one language. In Concepts for care, eds. J.R. Lally, P.L. Mangione, D. Greenwald, 31-39. San Francisco: WestEd.

Rogoff, B., Mistry, J., Goncu, A., & Mosier, C. (1993). Guided participation in cultural activity by toddlers and caregivers. *Monograph of the Society for Research in Child Development,* 58(8), 1-174

Shonkoff, J., & Phillips, D. (2000). *From neurons to neighborhoods.* Washington, DC: National Academy Press.

Tabors, P. O. (2008). *One child, two languages: A guide for early childhood educators of children learning English as a second language* (2nd ed.). Baltimore, MD: Paul H. Brookes.

## Area 4: Communication, Language, and Literacy

### *4.2 Early Literacy*

| Standard | Infants and toddlers engage in early reading experiences. |
|---|---|
| **Rationale** | Infants and toddlers develop literacy skills through their verbal interactions and shared book experiences with adults who have been warm and responsive to them (Bus, Belsky, van Ijvendoorn, & Crnic, 1995). Young children who notice differences and similarities in sounds typically show better reading skills as they enter school (Whitehurst & Lonigan, 2001). Early awareness of rhymes, for example, through exposure to nursery rhymes or rhyming songs and word games, influences the development of phoneme (sound) awareness, and later reading skills (Bryant, MacLean, Bradley, & Crossland, 1990). Two-year-olds with more complex sentences and more accurate pronunciation skills usually have fewer difficulties later when they learn to read (Scarborough, 1990). Caring adults who talk with toddlers about events and objects that are not present (decontextualized language) also help build children's later reading skills (Dickinson & Tabors, 2001). When adults talk with children during their play as well as during their daily routines, children are more likely to build the vocabulary they need for later reading (Hart & Risley, 1999). Adults who share discussions involving books with toddlers help build toddlers' language skills, which also influence their later reading skills (Whitehurst & Lonigan, 1998). |
| **Benchmarks** | **The infant and toddler:**<br>1. explores or shows interest in books by picking them up, mouthing them, carrying them, or flipping through pages.<br>2. focuses on a book or the reader when hearing stories read to him/her.<br>3. gazes at or points to pictures in books.<br>4. responds to or engages in songs, rhyming games, or fingerplays with a familiar adult.<br>**The toddler also:**<br>5. points to, labels, and/or talks about objects, events, or people within books.<br>6. enjoys and repeats songs, rhymes, or fingerplays.<br>7. answers simple questions related to books. |
| **Examples of Benchmarks** | Kai and Ben are sitting by a caring adult listening to a book. Kai points to a picture and says, "Butterfly." The adult responds, "Right, Kai—that's a butterfly."<br><br>A caring adult begins to chant, "Pat a cake, pat a cake, baker's man. Make me a cake as fast as you can." Tiwanna imitates the patting motions. The adult repeats the rhyme emphasizing and talking about the rhyming words man and can. |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Becca is looking at an animal book with a familiar adult. The adult names the animals and turns the pages after a few seconds. Becca grabs the page and turns back saying, "Dog!" The adult says, "Yes, it is a brown dog." She pauses for a short while for Becca to continue looking at the page. Becca then turns the page.<br><br>While outside, a caring adult reads a book about leaves and how they change colors in the fall. The adult points to or shows the children leaves and talks about their colors. |
| **Adult Supports** | With infants and toddlers, adults:<br>• talk with *each* child during routines, such as diapering and mealtime, and play experiences using English and words from *each* child's home language.<br>• read books daily to *each* child, individually or in small groups of children.<br>• respond to children's interests in books, talking about pictures and actions.<br>• provide a variety of books, including both fiction and non-fiction books, for *each* child to explore.<br>• provide opportunities daily for *each* child to participate in fingerplays, rhymes, and songs, including those in sign language, the home language, or representing children's home cultures.<br>• provide outdoor experiences with books and stories. |
| **References** | Bus, M., Belsky, J., van Ijzendoorn, M., & Crnic, K. (1995). Attachment and bookreading patterns: A study of mothers, fathers, and their toddlers. *Early Childhood Research Quarterly, 12*(1), 81-98.<br><br>Bryant, P. E., MacLean, M., Bradley, L., & Crossland, J. (1990). Rhyme, alliteration, phoneme detection and learning to read. *Development Psychology, 26,* 429-438.<br><br>Dickinson, D. K., & Tabors, P. O. (2001). *Beginning literacy with language: Young children learning at home and school*. Baltimore, MD: Paul H Brookes Publishing.<br><br>Hart, B., & Risley, T. R. (1999). *The social world of children learning to talk.* Baltimore, MD: Paul H. Brookes.<br><br>Scarborough, H. S. (1990). Very early language deficits in dyslexic children. *Child development*, *61*(6), 1728-1743.<br><br>Whitehurst, G., & Lonigan, C. (1998). Child development and emergent literacy. *Child Development, 68*, 848-872.<br><br>Whitehurst, G., & Lonigan, C. (2001). Emergent literacy. In S. Neuman, & D. Dickinson (Eds.). *Handbook of early literacy research* (pp. 11-29). New York, NY: Guilford Press. |

## Area 4: Communication, Language, and Literacy

### *4.3 Early Writing*

| Standard | Infants and toddlers engage in early writing experiences. |
|---|---|
| **Rationale** | Infants and toddlers develop skills in using writing instruments, such as markers and crayons, as they manipulate and explore a variety of materials during play and routine experiences. In addition, caring adults help older infants and toddlers, develop writing skills by providing them opportunities to use markers, crayons, and paintbrushes in appropriate ways and with the grip most comfortable to them. Children will use a variety of grasps as their small motor skills mature, starting first with a fist grasp while moving the whole arm and hand (Carlson & Cunningham, 1990). They will use writing materials in a variety of ways and their writing skills reflect their development in cognition and understanding (Dyson, 2001). As toddlers move between scribbling and drawing, the markings may only have meaning to the children (Whitehurst & Lonigan, 2001). It is important for adults to model writing behaviors to encourage children to imitate the behaviors (McCarty, Clifton, & Collard, 2001). |
| **Benchmarks** | **The infant:**<br>1. grasps and/or manipulates a variety of objects in his/her environment.<br>**The older infant and toddler also:**<br>2. scribbles spontaneously, usually using a fist grip.<br>3. shows increasing skill in manipulating objects such as stacking several items, using pegboards, and mastering the use of eating utensils. |
| **Examples of Benchmarks** | While Lanxton is being fed applesauce, he reaches for the spoon and pulls it out of the caring adult's hand. He grasps it tightly and carefully guides the spoon to his mouth.<br><br>At the lunch table, Thela picks up her fork and holds it upside down, poking at the peas on her plate. She looks at the fork for a moment and turns it around. Thela again tries poking at her peas and is able to get a few on her fork. She eats them.<br><br>Tami picks up the crayon in her fist, turns it to the paper, and makes several scribble marks.<br><br>Collin uses his fingers to poke the playdough. He picks up a plastic knife and makes cutting marks in the playdough.<br><br>While outside, Sayomi uses a piece of chalk to mark lines across a large rock. She then picks up several small pebbles and arranges them around the top surface of the rock. |

**Adult Supports**

With infants, adults:

- provide experiences for children to use small motor movements and wrist rotation through playing with and exploring a variety of materials and experiences such as water play, stacking blocks, or dumping and filling tubs.

With toddlers, adults:

- give *each* child supervised opportunities to use the pincer grasp (finger-thumb) skills in a variety of activities such as eating or grasping.
- provide daily access to writing tools, such as crayons or markers.
- provide opportunities for children to observe adult's writing.
- encourage *each* child to explore ways to practice scribbling or early drawing; for example, by breaking down the skill, adding prompts, or providing more repetition.
- allow children to choose which hand to write with and with a grip that's most comfortable to them.

**References**


Carlson, K. & Cunningham, J.L. (1990). Effects of pencil diameter on the grapho-motor skills of preschoolers. *Early Childhood Research Quarterly*, 5, 279-93.

Dyson, A. (2001). Writing and children's symbolic repertoires: Development unhinged. In S. Neuman, & D. Dickinson (Eds.). *Handbook of early literacy research,* pp. 123-159. New York, NY: Guilford Press.

McCarty, M.E., Clifton, R.K., & Collard, R.R. (2001). The beginnings of tool use by infants and toddlers. *The Official Journal of the International Society of Infant Studies*, 2(2), 233-256.

Whitehurst, G., & Lonigan, C. (2001). Emergent literacy. In S. Neuman, & D. Dickinson (Eds.). *Handbook of early literacy research* (pp. 11-29). New York, NY: Guilford Press.

## Area 5: Mathematics and Science

### *5.1 Comparison and Number*

| Standard | Infants and toddlers show increasing understanding of comparisons and amount, including use of numbers and counting. |
|---|---|
| **Rationale** | Infants and toddlers learn number skills as they work with small groups of objects in meaningful, routine tasks. Through rhymes, chants, and fingerplays involving counting, they learn that numerals have a constant sequence. In experiences that involve counting, they practice associating numbers to objects as they begin to construct the notion of one to one correspondence. Through repeated experiences of counting small groups of objects, they learn that the last number in the counting sequence represents the total quantity rather than the name of the last object (Gelman & Gallistel, 1978). Caring adults help children understand numbers and amount by providing many opportunities for children to explore and count small groups of objects, and to hear and repeat familiar counting rhymes.<br><br>Comparison involves finding a relationship between two things or two groups of things. We know from their behaviors that infants and toddlers are continually comparing objects, mentally grouping objects that are similar in shape, quantity, size, and texture (Thompson, 2001). Comparisons provide the basis for the development of measurement concepts and skills in older infants and toddlers. Caring adults who attach a verbal label to an object or comparison of focus to the infants or toddlers, such as big/small, heavy/light, hot/cold, help children build math-related vocabulary and understanding (Camaioni, 2004). |
| **Benchmarks** | **The infant:**<br>1. begins to notice characteristics of objects such as size, color, shape, or quantity.<br>**The toddler:**<br>2. matches and sorts objects by size, color, shape, or quantity.<br>3. begins to use simple counting in play and interactions, although numbers may occur out of order. |

| | |
|---|---|
| **Examples of Benchmarks** | At snack time, Carlos finishes all his crackers. He turns to a caring adult and holds up his plate, saying, “All gone.” The adult says, “You want some more crackers, Carlos?” Carlos says and signs, “More.” The adult puts some crackers on his plate.<br><br>The adult is helping Mandi get her mittens on and says, “One, two.” Mandi holds up her hands, one at a time, and repeats, “One, two.”<br><br>Brandon has a large peg board. He puts all the blue pegs in one row, then all the red pegs in another row.<br><br>A caring adult sets a box of children’s socks on the floor. The adult says, “Can you help me find the socks that match?” She pulls one sock out to start with and Aydan reaches into the box to find the matching sock. |
| **Adult Supports** | With infants and toddlers, adults:<br>• describe the groups of objects that the child makes.<br>• provide space and materials for play and exploration (indoors and out) with multiple colors, shapes, and sizes for sorting and grouping.<br>• use numbers to label actions such as counting shoes, toes, or crackers in routine dressing, feeding, and play experiences with *each* child.<br>• use counting fingerplays, rhymes, and songs with *each* child such as “One, two, buckle my shoe”. |
| **References** | Camaioni, L. (2004). Early language. In G. Bremner, & A. Fogel (Eds.). *Blackwell handbook of infant development* (pp. 379-426). Malden, MA: Blackwell.<br><br>Gelman, R., & Gallistel, C. (1978). *The child’s understanding of number.* Cambridge, MA: Harvard University Press.<br><br>Thompson, R. A. (2001). Development in the first years of life. In R. Behrman (Ed.). *The future of children: Caring for infants and toddlers* (pp. 21-34). Los Altos, CA: The David and Lucile Packard Foundation. |

## Area 5: Mathematics and Science

### *5.2 Patterns*

| Standard | Infants and toddlers begin to recognize patterns. |
|---|---|
| **Rationale** | Patterning involves making or finding regular sequence in sounds, sights, or large/small motor experiences. Infants notice and remember patterns that they see or hear. Infants visually group objects that are close together (Baillargeon, 1987). They recall and anticipate familiar sequences of events, such as the pattern of daily routines, and use these memories to predict events and respond accordingly. Learning to recognize, predict, and repeat patterns are a basic standard in mathematics education (NCTM, 2000).<br><br>Infants and toddlers can organize objects and recognize patterns in a variety of ways. Toys, such as nesting cubes and stacking rings, help infants and toddlers explore and practice making patterns as well as practice seriation (placing objects in order such as from smallest to largest). Sorting objects into groups of similar objects also involves recognizing patterns. Toddlers may group objects by a variety of characteristics such as shape, colors, use, or size. With practice and development, infants and toddlers become better able to recognize, create, and extend patterns, and organize objects in a variety of ways. |
| **Benchmarks** | **The infant:**<br>1. demonstrates expectations for familiar sequences of routines and experiences such as crying when it is near feeding time.<br>**The toddler:**<br>2. shows recognition of sequence in events or objects.<br>3. repeats actions in sequence, such as fingerplays.<br>4. notices patterns and objects in the environment.<br>5. organizes objects into groups during play and exploration. |

| | |
|---|---|
| **Examples of Benchmarks** | Amni sees the adult putting food on the table. She gets her bib and crawls up to the table. The adult says, “Pretty soon lunch will be ready, Amni. After you wash your hands, we can eat.”<br><br>An adult and some of the children see a spider web in the tree. The adult describes the web shape and they sing “Eensy, weensy spider.” Meneacka repeats the appropriate action with each line.<br><br>Mei-Mei takes the nesting cubes apart and places one small cube on top of one large cube and puts a different small cube on top of another large cube.<br><br>Emma and Natalie gather items outside. Emma picks up several sticks and places them in a pile. Natalie gathers small rocks, one by one, and puts them in a nearby pile. Emma says, “Let’s build a fence,” and places one of her sticks on the ground. Natalie puts a rock next to it. They alternate one stick and one rock, each setting an item in the line, until their piles are empty. |
| **Adult Supports** | With infants and toddlers, adults:<br>• label patterns in objects for *each* child.<br>• use language to describe patterns or sequences of events; for example, “First we put your coat on, then we’ll go outside”.<br>• use fingerplays and songs with repeatable action patterns.<br>• provide materials that vary in characteristics such as colored blocks, pop beads, and pinecones that help children explore and organize objects.<br>• provide ordered materials such as nesting cubes or bowls and stacking rings that help children notice differences and begin to arrange objects in a series. |
| **References** | Baillargeon, R. (1987). Object permanence in 3.5- and 4.5-month-old infants. *Developmental Psychology,* 23, 655-664.<br><br>National Council of Teachers of Mathematics [NCTM]. (2000). *Principles and standards for school mathematics.* Reston, VA: National Council of Teachers of Mathematics. |

## Area 5: Mathematics and Science

### *5.3 Shapes and Spatial Relationships*

| Standard | Infants and toddlers show increasing understanding of spatial relationships. |
|---|---|
| **Rationale** | Young infants begin to recognize spatial relationships during play and routines. The development of binocular vision (seeing with two eyes), at about four months of age in most children, helps this skill (Slater, 2004). Infants usually reach for closer objects rather than ones that are further away. Infants and toddlers distinguish shallow surfaces from deep ones, and avoid deep steps when they see them (Gibson and Walk, 1960). There is research which suggests that children who play outdoors are less likely to be near-sighted; thus impacting how they see shapes (Rose, Morgan, Ip, Kifley, Huynh, Smith, & Mitchell, 2008; McBrien, Morgan, & Mutti, 2009).<br><br>Working with both two- and three-dimensional shapes provides the basis for geometry (NCTM, 2000). Infants and toddlers learn to sort or group three-dimensional shapes based on their uses (Rosch, Mervis, Gray, Johnson, & Boyes-Braem, 1976). Infants and toddlers note and use shape differences before they have labels for shapes. For example, they might separate objects into those that will roll and those that will not roll. Caring adults help children learn about shapes through providing a variety of toys and materials for young children to explore, compare, and classify, including puzzles and sorting canisters. Caring adults also help children understand shapes by labeling shapes that children are exploring, and using words that suggest comparisons, such as bigger or smaller. |
| **Benchmarks** | **The infant:**<br>1. takes objects apart.<br>2. fills and empties containers.<br>**The toddler:**<br>3. takes objects apart and attempts to put them together.<br>4. shows awareness of his/her own body space. |
| **Examples of Benchmarks** | Rekha fills up the container with water, empties it, and then repeats the action.<br><br>Riley is working with a four-piece puzzle. He takes out the apple, and then puts it back in its hole.<br><br>The adult is singing “Head, shoulders, knees, and toes” while she shows the actions. Matt touches each body part as it is named. |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Taylor snaps two interlocking blocks together, takes them apart, and then puts them back together.<br><br>Isabella cries every time another child gets near her space.<br><br>Tammy goes to the shelf and dumps out several toys, sometimes many times a day. A caring adult says, "Tammy, help me put some of these toys back in their tub." |
| **Adult Supports** | With infants and toddlers, adults:<br>• describe spatial relationships, such as "in", "out", "beside", "on" and "under" while *each* child is exploring the environment.<br>• provide simple, multi-part toys, such as nesting toys or stacking rings, blocks, simple puzzles, and natural materials, such a pinecones and leaves.<br>• provide multiple containers of various size and shape to fill and empty with toys, and for use in sand or water play.<br>• provide defined areas indoors and outdoors that allow *each* child, including those with movement limitations, to experience personal space for movement and exploration.<br>• provide careful supervision as children play and explore.<br>• play with children and describe their experiences. |
| **References** | Gibson, E., & Walk, R. (1960). The "visual cliff." *Scientific American,* 202, 64-71.<br><br>McBrien, N. A., Morgan, I. G., & Mutti, D. O. (2009). What's hot in myopia research-The 12th International Myopia Conference, Australia, July 2008. *Optometry & Vision Science*, *86*(1), 2-3.<br><br>National Council of Teachers of Mathematics [NCTM]. (2000). *Principles and standards for school mathematics.* Reston, VA: National Council of Teachers of Mathematics.<br><br>Rosch, E., Mervis, C., Gray, W., Johnson, D., & Boyes-Braem, P. (1976). Basic objects in natural categories. *Cognitive Psychology,* 8, 382-439.<br><br>Rose, K. A., Morgan, I. G., Ip, J., Kifley, A., Huynh, S., Smith, W., & Mitchell, P. (2008). Outdoor activity reduces the prevalence of myopia in children. *Ophthalmology*, *115*(8), 1279.<br><br>Slater, A. (2004). Visual perception. In G. Bremner, & A. Fogel (Eds.). *Blackwell handbook of infant development* (pp. 5-34). Malden, MA: Blackwell. |

## Area 5: Mathematics and Science

### *5.4 Scientific Reasoning*

| Standard | Infants and toddlers observe, describe, predict, and explore the world around them. |
|---|---|
| **Rationale** | Through daily play experiences and routines, young infants learn about cause and effect, that is, that some events lead to others (Spelke, Katz, Purcell, Ehrlich, & Breinlinger, 1994). They show surprise when events occur that don't follow expected sequences. For example, four-month-old infants show surprise when a toy train disappears into a tunnel without emerging on the other side (Baillargeon, 1987). This expectation is the beginning of object permanence; however, actually retrieving an object that disappears in an unusual location requires motor control of reaching, which develops later. Infants typically observe the results of their actions and sometimes repeat them, showing surprise if the results are not the same as before. Toddlers deliberately vary their actions, watching what happens each time (Piaget, 1971). Encouraging each child to problem solve is basic to math development (Geist, 2009). Caring adults promote the development of scientific reasoning by providing young children with safe environments for play and responsive materials to explore (Wachs & Combs, 1995). Regular, year-round experiences with nature in the outdoors will provide unique learning experiences about the world. |
| **Benchmarks** | **The infant or toddler:**<br>1. engages in a variety of play experiences and exploration within inside and outside environments.<br>2. demonstrates curiosity in learning about the world around them.<br>3. shows understanding of object permanence (that people exist when they cannot be seen, and objects exist even when hidden under a blanket) by looking for people and objects that have disappeared.<br>4. notices his/her own individual needs such as hunger or thirst.<br>5. begins to notice and label objects and events in the indoor and outdoor environments.<br>6. explores and engages in problem solving. |
| **Examples of Benchmarks** | Rheta fills the largest cup with water, and pours it into the dump truck while in the sandbox. She watches it overflow into the sand. She repeats it over and over again.<br><br>Cho Wei rolls a ball across the floor and watches it go under a cupboard. He looks under the cupboard to find the ball.<br><br>Miguel is outside playing. He runs to a nearby adult, saying, "Agua." The adult gives him a cup of water. |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Kim looks upward at the falling flakes, points, and signs, "Snow." The adult comes over and says, "Yes, it's snowing."<br><br>Evelyn picks up a ball and inserts it in the tube. The ball easily slides through and onto the tray of her wheelchair. She smiles, picks up a larger ball, and pushes it against the end of the tube. She twists the ball and pushes harder, but it doesn't go into the tube. She picks up a larger tube, drops the ball inside and it slides through. She says, "Yeah!" |
| **Adult Supports** | With infants and toddlers, adults:<br>• provide a variety of materials for play which invite open-ended exploration and problem solving.<br>• give children enough wait time to begin developing problem solving skills.<br>• allow and encourage repetitive activities, such as dropping and picking up objects, or playing games such as "Peek-a-boo" with each child.<br>• allow free exploration of safe natural materials, if culturally appropriate and with supervision, such as leaves, grass, snow, or food materials.<br>• describe natural events, such as a squirrel on the lawn or a bird flying overhead.<br>• encourage curiosity by providing a variety of play experiences within the inside and outside environment.<br>• describe children's actions and discoveries. |
| **References** | Baillargeon, R. (1987). Object permanence in 3.5- and 4.5-month-old infants. *Developmental Psychology, 23*, 655-664.<br><br>Geist, E. (2009). *Children are born mathematicians: Supporting mathematical development, birth to age 8*. Upper Saddle River, NJ: Merrill/Pearson.<br><br>Piaget, J. (1971). *Biology and knowledge.* Chicago, IL: University of Chicago Press.<br><br>Spelke, E., Katz, G., Purcell, S., Ehrlich, S., & Breinlinger, K. (1994). Early knowledge of object motion: Continuity and inertia. *Cognition, 51*, 131-176.<br><br>Wachs, T. D., & Combs, T. T. (1995). The domains of infant mastery motivation. In R. H. MacTurk, Y G. A. Morgan (Eds.). *Mastery motivation: Origins, conceptualizations, and applications* (pp. 147-164). Norwood, NJ: Ablex. |

## Area 6: Creative Arts

### *6.1 Art*

| Standard | Infants and toddlers participate in a variety of sensory and art-related experiences. |
|---|---|
| **Rationale** | In the first year of life, art takes the form of sensory experiences. Infants use sight, taste, touch, and hearing to explore a variety of materials. There is a connection between these sensory experiences, such as looking in a mirror or shaking a rattle that supports the development of creativity (Miller, 1999). In addition manipulating a variety of play materials builds the small motor skills necessary for writing and art experiences.<br><br>Older infants and toddlers explore art through using tools, such as crayons or brushes, or through direct manipulation, using their hands to explore clay, playdough, or finger-paint. Through scribbling, infants and toddlers learn what writing materials can do. Through repeated exposure to art materials, infants and toddlers gain control of their movements and begin to intentionally plan and direct their use of materials (Lowenfeld & Brittain, 1987). Infants' and toddlers' art is affected by the development of small motor skills, cognition, and perception, as well as by their experience with the specific medium or materials (Seefeldt, 1999). Caring adults help young children develop art skills by providing repeated opportunities to explore both new and familiar media such as dough, clay, crayons, and paint. Caring adults individualize strategies to enable *each* child to acquire skills in manipulating art media. Art experiences should focus on a child's explorations and creations more than completing an adult-directed project. |
| **Benchmarks** | **The infant:**<br>1. gazes at a picture, photo, or mirror images.<br>2. manipulates and explores play materials within the environment.<br>**The older infant and toddler also:**<br>3. expresses interest in art-related experiences and media.<br>4. engages in experiences that support creative expression.<br>5. chooses and experiments with a variety of art materials such as playdough, crayons, chalk, water, markers, and paint. |

| | |
|---|---|
| **Examples of Benchmarks** | Tran, during tummy time, picks his head up and turns towards his smiling reflection in the mirror.<br><br>Paolo picks up the marker. First, he makes vertical marks on the paper, then horizontal. He also makes dots. Then, he puts the marker on the side and rolls it back and forth.<br><br>Pat places her finger in the red finger paint and touches the paper. She swirls her finger on the paper, making a mark. She then puts her hand in the paint and places it on the paper. "Sun!" she exclaims.<br><br>Joathim paints sidewalk designs with a short-handled four-inch brush and a small pail half full with water colored green.<br><br>Tristen pounds her fist on top of a small ball of playdough chanting, "Roll it. Pat it. Mark it with a T".<br><br>Elijah explores the applesauce on his highchair tray, moving the applesauce with his fingers across the tray. |
| **Adult Supports** | With infants and toddlers, adults:<br>• provide supervised daily opportunities for creative expression that reflect the home cultures of the families served.<br>• use descriptive words to point out colors, shapes, and textures during play and art experiences.<br>• set up safe environments and use age appropriate materials for children's exploration within the inside and outside environment.<br>With toddlers, adults:<br>• provide a variety of safe, hazard free art materials such as crayons, markers, paper, and paint brushes for *each* child to explore while supervised.<br>• encourage *each* child to explore all art materials in a variety of ways, rather than focusing on finished "products" such as toilet roll butterflies, pre-patterned art, or coloring books.<br>• provide creative arts experiences in the outdoor environment.<br>• model and encourage children to practice hand washing before and after each use of sensory materials. |
| **References** | Lowenfeld, V., & Brittain, W. (1987). *Creative and mental growth* (8th ed.). New York, NY: Macmillan.<br><br>Miller, K. (1999). *Simple steps: Developmental activities for infants, toddlers, and two year olds*. Beltsville, MD: Gryphon House.<br><br>Seefeldt, C. (1999). *Early childhood education: Current findings in theory and practice* (3rd ed.). New York, NY: Teachers College Press. |

## Area 6: Creative Arts

### *6.2 Music, Rhythm, and Movement*

| Standard | Infants and toddlers participate in a variety of rhythm, music, and movement experiences. |
|---|---|
| **Rationale** | Infants are sensitive to musical sounds and patterns even before birth. Young infants move their bodies rhythmically to music and can respond to the patterns in songs (Trehub, Schellenberg, & Hill, 1997). Simple rhythmic songs with repeated phrases and rhymes help infants and toddlers learn language patterns, including sound (phoneme) patterns (Carlton, 2000). Moving to music helps infants and toddlers develop large muscle control and dexterity (Weikart, 1998). Caring adults help children develop skills in music and movement by providing daily and repeated opportunities to sing, chant, and move to new and familiar songs and music. Music engagement is central to the cultural practices and circumstances of many young children's experiences (Barrett, 2009). |
| **Benchmarks** | **The infant or toddler:**<br>1. shows interest in songs, tones, rhythms, voices, and music.<br>2. experiments with a variety of sound-making objects.<br>3. enjoys exploring ways of interacting with others through touch and motion.<br>**The toddler also:**<br>4. chooses and participates in music and movement experiences.<br>5. sings simple songs and participates in fingerplays. |
| **Examples of Benchmarks** | Ngemi picks up the spoon and hits the pot several times. Next she hits the frying pan and then hits the pot again.<br><br>A caring adult plays music. Andy starts moving his feet to the music, bobbing up and down as the adult claps his hands.<br><br>A caring adult and children are singing. Hyun-Joo joins in by saying, "The wheels on the bus go round and round." She moves her hands in a circular motion while singing.<br><br>Chris is crying and restless. A caring adult plays soothing music. Chris calms down and stops crying.<br><br>Caden shakes his tambourine and moves his body in time to the music. |

**Adult Supports**

With infants and toddlers, adults:

- join *each* child daily in singing and movement experiences to music.
- incorporate rhymes into daily routines.
- provide *each* child with opportunities to participate in musical experiences and traditions reflecting the home cultures of the families served, in both indoor and outdoor environments.
- incorporate large and small motor movement with a mixture of quiet and active music experiences for *each* child.
- provide ample space, both indoors and outdoors, for children to dance and move freely.
- regularly introduce and model new movement experiences.

**References**


Barrett, M. S. (2009). Sounding lives in and through music: A narrative inquiry of the 'everyday' musical engagement of a young child. *Journal of Early Childhood Research*, *7*(2), 115-134.

Carlton, E. (2000). Learning through music: The support of brain research. *Child Care Information Exchange, 5*, 53-56.

Trehub, S., Schellenberg, E., & Hikll, D. (1997). The origins of music perception and cognition: A developmental perspective. In I. DeLiege, & J. Sloboda (Eds.). *Perception and cognition of music.* Hove: Psychology Press.

Weikart, P. (1998). *Steady beat: What we now know.* Ypsilanti, MI: High/Scope Educational Research Foundation.

## Area 6: Creative Arts

### *6.3 Dramatic Play*

| Standard | Infants and toddlers engage in dramatic play experiences. |
|---|---|
| **Rationale** | Most infants develop the ability to imitate what they see and then imitate what they recall. Some infants and toddlers prefer to use real-life props and objects in their play. Older infants and toddlers learn to let one object stand for another such as using a block on a plate to represent a piece of cake (Wolf & Grollman, 1982). Other infants and toddlers focus on objects, people, and events that are not present which results in fantasy play or make-believe. They also act out sequences of actions that they have observed, as well as new patterns that they have planned. Later, they may act out sequences of actions involving objects (Sluss, 2005). Occasionally these play sequences may involve other infants and toddlers as well. These actions help children develop motor, cognitive, social, emotional, and communication skills (Weiser, 1991). Caring adults support infants and toddlers in dramatic play experiences through having a variety of props available and interacting within dramatic play experiences. |
| **Benchmarks** | **The infant or toddler:**<br>1. imitates the sounds, facial expressions, gestures, or behaviors of another person.<br>2. imitates the actions and sounds of animals, people, and objects.<br>**The toddler also:**<br>3. engages in dramatic play in both indoor and outdoor environments. |
| **Examples of Benchmarks** | Jason is lying down. A caring adult pats his back. Toni watches the adult, then comes over and pats Jason's back.<br><br>Amy is mouthing a toy telephone. She hears the real phone ring and puts the toy phone receiver to her ear.<br><br>Maria is rocking the baby-doll in her child-sized rocker. She hums a tune and says, "Love you baby", while bending down to kiss the doll. She looks to a nearby adult and says, "You kiss baby, too." The adult kisses the baby.<br><br>Mary Sue picks up a block and pretends to drink from it. She hands it to the adult, who also pretends to drink from the block. Mary Sue then takes the block and holds it to the teddy bear's mouth, saying "Drink, teddy."<br><br>While playing in the sandbox, a child finds a play plate, puts sand on it, and brings it to the teacher saying, "I made you some soup." |

| | |
|---|---|
| **Adult Supports** | With infants and toddlers, adults:<br>• provide space, time, and materials from children's home cultures to use in imitating actions and simple roles in dramatic play experiences for both indoor and outdoor environments.<br>• play with *each* child in dramatic play modeling healthy behaviors.<br>• prepare a safe, hazard free environment with a variety of developmentally appropriate materials.<br>With toddlers, adults:<br>• provide opportunities for *each* child to play and interact with others during dramatic play, such as washing the baby dolls together.<br>• provide developmentally appropriate materials that encourage healthy behaviors, such as fresh fruit and vegetable play foods and safety equipment (such as helmets), to use in dramatic play. |
| **References** | Sluss, D. (2005). *Supporting play birth through age eight.* Clifton Park, NY: Thomson Delmar Learning.<br><br>Weiser, M. (1991). *Infant/toddler care and education* (2nd ed.). Columbus, OH: Merrill.<br><br>Wolf, D. & Grollman, N. (1982). Ways of playing: Individual differences in imaginative play. *Contributions to Human Development*, 6, 46-63. |

## Area 7: Social Studies

### *7.1 Awareness of Family and Community*

| Standard | Infants and toddlers demonstrate a sense of belonging within their family, program, and other social settings or groups. |
|---|---|
| **Rationale** | Infants and toddlers who have warm, nurturing relationships with their parents and other adults usually develop better social skills than those with poor relationships (Belsky & Cassidy, 1995; Howes & Hamilton, 1993). For very young children, acceptance, emotional attachment, and ongoing nurturing are the primary basis for building a sense of belonging. The way caring adults relate to infants and toddlers influences their feelings of safety, security, and belonging within various settings. Predictable routines help infants and toddlers adjust to settings, building their sense of belonging. Adults who are nurturing and responsive to children's needs help infants and toddlers feel that their needs are important and valued, which in turn create a sense of belonging. |
| **Benchmarks** | **The infant or toddler:**<br>1. expresses enjoyment at being in a familiar setting or group.<br>2. recognizes familiar adults and uses them to determine safety during exploration.<br>3. freely explores and plays within familiar settings. |
| **Examples of Benchmarks** | Bobby is outside playing with blocks. Mark walks over and sits beside Bobby. Each plays with a set of blocks.<br><br>Chavah begins to crawl towards an open door in her living room. She stops, turns her head back, and looks at her mother's questioning face. She turns around and crawls towards her mother.<br><br>Isabella is playing on the floor and starts to cry. The nearby adult stops what he is doing and goes to Isabella saying, "Isabella, it sounds like you are sad. Are you ready for us to spend some time together? Let's sit and read a book." Isabella responds with a smile and coos as they sit to read together.<br><br>As Juan enters his classroom, he runs to the caring adult and hugs her. Juan turns to his father and waves. |

| | |
|---|---|
| **Adult Supports** | With infants and toddlers, adults:<br>• arrange the room, adjust space, and provide materials so that two or more children, including those with special health concerns, can play alongside each other.<br>• provide a labeled space where *each* child's possessions are kept.<br>• provide photographs of *each* child with their family prominently displayed at the child's eye level.<br>• talk with children in positive ways about familiar people and family members.<br>• create environments that welcome each family, program staff, and members of the community.<br>• encourage family members to participate in program experiences and daily routines.<br>• incorporate familiar items, language, and routines from *each* child's culture into program settings.<br>• play and interact with children often throughout each day. |
| **References** | Belsky, J., & Cassidy, J. (1995). Attachment: Theory and evidence. In M. L. Rutter, D. F. Hay, & S. Baron-Cohen (Eds.). *Developmental principles and clinical issues in psychology and psychiatry* (pp. 373-402). Oxford, England: Blackwell.<br><br>Howes, C., & Hamilton, C. E. (1993). The changing experience of child care: Changes in teachers and in teacher-child relationships and children's social competence with peers. *Early Childhood Research Quarterly,* 8, 15-32. |

## Area 7: Social Studies

### *7.2 Awareness of Culture*

| Standard | Infants and toddlers demonstrate a strong sense of self within their culture. |
|---|---|
| **Rationale** | Culture is "a set of values, beliefs, and ways of thinking about the world that influences everyday behavior" (Trumbull, Rothstein-Fisch, Zepeda, & Gonzalez-Mena, 2005, p. 3). "Culture is transmitted from one generation to the next in multiple ways, both explicitly- in conversations and direct guidance- and implicitly- in daily practices such as child-rearing" (Trumbull, Rothstein-Fisch, Zepeda, & Gonzalez-Mena, 2005, p. 3).<br><br>Infants and toddlers develop a sense of culture at a very young age. Infants and toddlers become aware of their cultural surroundings through the language they hear, and how family and adults behave around them with respect to caregiving, interaction with others, expectations about learning and abilities, and important stories and traditions. "Through culture, children gain a sense of who they are, a feeling of belonging, what is important, what is right and wrong, how to care for themselves and others, and what to celebrate, eat, and wear" (Mangione, 1995, p. ix). Ensuring continuity between home and early care and education environments is essential, so consistent acculturation occurs even while exposure to differences is inevitable and healthy. |
| **Benchmarks** | **The infant or toddler:**<br>1. expresses enjoyment at being in a familiar setting or group.<br>2. chooses and participates in familiar experiences, including songs and stories from his or her home culture. |
| **Examples of Benchmarks** | An adult is singing with children. José, whose family speaks primarily Spanish at home, sings along. Brittany signs the verses. The adult alternates singing the verses in English and Spanish while encouraging the children to make the sign language gestures that go with the words.<br><br>Chi's father, who is from Vietnam, visits the classroom during snack. He shows the toddlers how he uses chopsticks to eat his food and lets them explore using child-sized chopsticks with their food. Chi beams.<br><br>Katie's parents enter the room and she crawls to them. As they lean down to see her, she says, "Ma-ma, da-da," and reaches her arms up.<br><br>It is naptime. A caring adult sings a song to TaRae that was taught to him/her as a child. |

| | |
|---|---|
| **Adult Supports** | With infants and toddlers, adults:<br>• provide opportunities for *each* child to join in experiences such as fingerplays or singing songs from the child's home language or culture.<br>• use words to refer to families and family members that acknowledge how young children may be raised in many different kinds of families.<br>• include staff or volunteers from *each* child's culture, race, or ethnicity.<br>• provide care routines that are similar to *each* child's family culture.<br>• learn words from *each* child's home language.<br>• speak to *each* child in his/her home language.<br>• talk positively about family members. |
| **References** | Mangione, P. L. (Ed.). (1995). *Infant/toddler caregiving: A guide to culturally sensitive care.* Sacramento, CA: California Department of Education.<br><br>Trumbull E., Rothstein-Fisch, C., Zepeda, M., & Gonzalez-Mena, J. (2005) Bridging cultures in early care and education: A training module*, West Ed R&D Alert*, *7*(3). Retrieved from http://www.wested.org/cs/we/view/feat/178 |

## Area 7: Social Studies

### *7.3 Exploration of the Environment*

| Standard | Infants and toddlers explore new environments with interest and recognize familiar places. |
|---|---|
| **Rationale** | Infants' and toddlers' first awareness of the world around them begins with information they acquire through their five senses. They understand spatial relationships because of seeing objects with two eyes that provide depth perception (Slater, 2004). As motor skills grow, so does mobility, and the ability for self-directed exploration and play. Exploration is therefore dependent on functioning senses and motor skill development. It is also dependent on children's comfort and security. Being comfortable and secure increases infants and toddlers willingness to take risks and explore new places. Infants and toddlers who are allowed to spend most of the day freely moving arms and legs, while exploring and playing within their physical environment designed for maximum safety, develop the most advanced motor and cognitive skills needed for later development. Exploration increases the richness of experiences and promotes brain development by providing more and varied stimulation. |
| **Benchmarks** | **The infant or toddler:**<br>1. demonstrates interest and curiosity within familiar and unfamiliar settings.<br>2. explores and plays with new, as well as familiar objects, in the environment using all five senses. |
| **Examples of Benchmarks** | Ari, a newborn, moves his eyes in the direction of his father's voice as he enters the room.<br><br>Sabira toddles down a clinic hallway as her mother waits for her well-baby check-up.<br><br>Seth picks up a new board book and chews on the corner.<br><br>A caring adult gives Demario a bowl and wooden spoon. Demario bangs the bowl with the spoon.<br><br>Kai notices new play mats and a ramp in the corner of the room. He walks to the mats, pushes them together, and climbs up them. Kai feels the smoothness of the mat with his hands, sits on his bottom, and slides down the ramp.<br><br>A caring adult sets Payton, a young infant, on the floor. Payton rolls slightly from side to side and sees a small stuffed toy. She reaches for the toy, grasps it, holds it over her head, and turns it in her hands while she looks at it. |

| | |
|---|---|
| **Adult Supports** | With infants and toddlers, adults:<br>• provide a variety of developmentally appropriate experiences and materials to explore and play with.<br>• name objects in the environment.<br>• talk through routines to help children feel safe, as well as build their understanding of what is happening or is going to happen.<br>• provide opportunities to experience a variety of settings both indoors and outdoors.<br>• model curiosity and observation by commenting and engaging children in conversation.<br>• play games that encourage engagement with others and the environment, such as peek-a-boo or hide-and-seek.<br>• ensure all children receive vision and hearing screenings.<br>• share information with families on how to provide safe environments that allow for infants and toddlers to explore and get messy without getting hurt.<br>• encourage families to take infants and toddlers on outdoor walks and field trips to public settings such as parks, zoos, farms, skywalks, and grocery stores.<br>• model healthy and safe behaviors for children and families. |
| **References** | Slater, A. (2004). Visual perception. In G. Bremner, & A. Fogel (Eds.). *Blackwell handbook of infant development* (pp. 5-34). Malden, MA: Blackwell. |

# IV. PRESCHOOL Early Learning Standards

**Area 8: Physical Well-Being and Motor Development**
8.1 Healthy and Safe Living
8.2 Large Motor Development
8.3 Small Motor Development

**Area 9: Approaches to Learning**
9.1 Curiosity and Initiative
9.2 Engagement and Persistence
9.3 Reasoning and Problem Solving
9.4 Play and Senses

**Area 10: Social and Emotional Development**
10.1 Self
10.2 Self-Regulation
10.3 Relationships with Adults
10.4 Relationships with Children

**Area 11: Communication, Language, and Literacy**
11.1 Language Understanding and Use
11.2 Early Literacy
11.3 Early Writing

**Area 12: Mathematics and Science**
12.1 Comparison and Number
12.2 Patterns
12.3 Shapes and Spatial Reasoning
12.4 Scientific Reasoning
12.5 Scientific Investigations and Problem Solving
12.6 Measurement

**Area 13: Creative Arts**
13.1 Art
13.2 Music, Rhythm, and Movement
13.3 Dramatic Play

**Area 14: Social Studies**
14.1 Awareness of Family and Community
14.2 Awareness of Culture
14.3 Awareness of the Relationship between People and the Environment in which They Live
14.4 Awareness of Past

## Area 8: Physical Well-Being and Motor Development

### *8.1 Healthy and Safe Living*

| Standard | Children understand healthy and safe living practices. |
|---|---|
| **Rationale** | Children's physical well-being provides the foundation for their ability to learn. Young children are beginning to establish life-long eating habits that can help prevent disease, obesity, and other health problems (U S. Department of Health and Human Services, 1996). Healthy eating provides needed nourishment for children's brains and for their physical activities. Children who are well rested are less distracted, have more acute attention spans, and improved inhibition of automatic response (Galinsky, 2010). Adults are important role models for healthy and safe living practices.<br><br>Accidents are the chief cause of death in young children (Maternal and Child Health Bureau, 2003). Appropriate levels of risk encourage exploration without undermining children's safety. Even very young children can begin to learn about personal safety. Adults support children's safety through setting up age appropriate environments with a variety of materials for play, exploration, and learning. It is important for adults to frequently check indoor and outdoor environments for safety and health hazards.<br><br>Lead exposure can have detrimental effects on children's overall health and well-being. Lead is a neurotoxin. Even at low levels of exposure, lead can cause reduction in a child's IQ and attention span, and result in reading and learning disabilities, hyperactivity, and behavioral difficulties. These effects cannot be reversed once the damage is done, affecting a child's ability to learn, succeed in school, and function later in life. Lead exposure to children primarily occurs through chipping and peeling interior and exterior wall paint (U.S. Department of Health and Human Services & U.S. Department of Agriculture, 2010; American Academy Of Pediatrics, American Public Health Association, & National Resource Center for Health and Safety in Child Care and Early Education, 2011). |
| **Benchmarks** | **The child:**<br>1. begins to recognize and select healthy foods.<br>2. follows healthy self-care routines such as brushing teeth, washing hands, and using the bathroom.<br>3. develops appropriate balance between rest and physical activity as part of a healthy lifestyle.<br>4. demonstrates safe behaviors regarding environment (e.g., stranger, tornado, fire, traffic), substances (e.g., drugs, poisons), and objects (e.g., guns, knives, scissors).<br>5. communicates safety rules and the reasons for them. |

| | |
|---|---|
| **Examples of Benchmarks** | The children are eating lunch. All food has been placed in the middle of the table in serving bowls. The caring adult helps herself to the broccoli and passes it around the table. Abdul puts a spoonful on his plate saying, “They’re little trees.” The adult says, “Tell me why you think they look like trees.” Abdul says, “They’re green and leafy.” The adult says, “You are right. Broccoli is green and leafy like trees.” She takes a bite and says, “I like broccoli.” Abdul takes a bite and says, “Me too.” The adult then comments, “Broccoli helps our bodies grow.” Abdul says, “I’m going to grow as big as my dad.”<br><br>Kendal’s nose is dripping. The adult says, “I see your nose is running. How can you take care of that?” Kendal gets a tissue and wipes his nose. He starts to return to play. The adult says, “Kendal, you need to wash your hands after you wipe your nose.” Kendal washes his hands.<br><br>After an active morning and a healthy lunch, Grace rubs her eyes; a sign that her body needs rest. A caring adult says, “Grace, it looks like you are ready to rest. You have worked hard this morning.” The adult sets out cots around the classroom, dims the lights, and plays soft music. Grace retrieves her blanket from her cubby, finds her assigned cot, and allows the adult to rub her back until she falls asleep.<br><br>The fire alarm alerts the program to a scheduled monthly drill. Li stops her activity and looks to an adult for guidance. She follows the group to the designated safe area outdoors. Li says to her friend, “When we hear the fire alarm, we need to get out so we don’t get hurt.” |
| **Adult Supports** | With preschool age children, adults:<br>• model appropriate mealtime behavior, sitting with children to guide interactions, model mealtime behaviors, and engage children in conversations.<br>• encourage *each* child to learn and develop self-help skills, such as washing hands and cleaning up spills, during mealtimes and food experiences.<br>• plan and implement emergency and safety procedures, such as fire, disaster, and tornado drills.<br>• check fire alarms frequently to ensure they are working properly.<br>• encourage safety through picking up toys and wiping up spills.<br>• provide children with the correct medication at the correct time, documenting the date, time, and dose. |

| | |
|---|---|
| **Adult Supports (continued)** | • provide nutritious meals and snacks.<br>• include children in food preparation experiences.<br>• have a written care plan in place for *each* child who has food, drug, and other allergies.<br>• provide periods of rest using dim lights and relaxing music to create a calm environment as needed throughout the day.<br>• use adaptive equipment to help children with special needs develop self-help skills.<br>• teach children safe riding practices such as safe boarding and leaving of vehicles, safe street crossing, danger zone recognition, and emergency evacuation of vehicles.<br>• provide helmets for children when they use riding toys.<br>• teach children water safety.<br>• share with families the importance of regular well-child visits and dental health exams. |

**References**


American Academy Of Pediatrics, American Public Health Association, & National Resource Center for Health and Safety in Child Care and Early Education. (2011). *Caring for our children: National health and safety performance standards; Guidelines for early care and education programs. 3rd edition.* Elk Grove Village, IL: American Academy of Pediatrics; Washington, DC: American Public Health Association. Also available at http://nrckids.org.

Galinsky, E. (2010). *Mind in the making: The seven essential like skills every child needs.* New York, NY: HarperCollins Publishers.

Maternal and Child Health Bureau (2003). *Child Health.* Washington, DC: U. S. Department of Health and Human Services Health Resources and Services Administration.

U. S. Department of Health and Human Services (1996). *Physical activity and health: A report of the Surgeon General.* Washington DC: Author.

U.S. Department of Health and Human Services & U.S. Department of Agriculture. (2010). *Dietary guidelines for Americans.* 7th ed. Washington, DC: U.S. Government Printing Office.

## Area 8: Physical Well-Being and Motor Development

### *8.2 Large Motor Development*

| Standard | Children develop large motor skills. |
|---|---|
| **Rationale** | Development of large motor skills, such as running, jumping, throwing, catching, balancing, and climbing, is influenced by maturation, environment, and the individual child's experiences (Haywood & Getchell, 2009). While young children are learning motor skills, they typically show a variety of ways of performing the skill. With experience, children are able to perform skills more consistently. By five years of age children show more integrated skills, such as the use of arms to aid jumping or a shift in weight to aid throwing. Children develop physical fitness (e.g., strength, flexibility, and endurance) and motor skills from a variety of child-initiated and adult-directed experiences.<br><br>Numerous research studies link daily physical activity to health at all ages (U.S. Department of Health and Human Services, 1996). However, studies also show that even when children do engage in active play on the playground, the intensity and duration of their movement may not be sufficient to ensure health, fitness, and motor development (Timmons, Naylor, & Pfeiffer, 2007). This suggests that children need adults to provide some structured physical activities that will promote the desire to continue participating in fun movement activities as they get older. For preschoolers, researchers suggest at least a half hour per day of structured, adult-guided motor activity to keep children moving (Trawick-Smith, 2010) while the National Association for Sport and Physical Education recommends 60 minutes per day (Goodway, Getchell, & Raynes, 2009).<br><br>In recent years, there has been an increase in organized sports for preschool age children. Contrary to what adults have been led to believe, it has been found that motor skills, such as throwing, catching, kicking, and hitting a ball, do not develop sooner simply as a result of introducing them to children at an earlier age (Branta, Haubenstricker, & Seefeldt, 1984). In addition, teaching or expecting these skills to develop before children are developmentally ready is more likely to cause frustration than long-term success in organized sports (Stryer, Toffler, & Lapchick, 1998). |
| **Benchmarks** | **The child:**<br>1. demonstrates control and balance in locomotor skills, such as walking, running, jumping, hopping, marching, galloping, and climbing stairs.<br>2. demonstrates the ability to coordinate movements with balls, such as throwing, kicking, striking, catching, and bouncing balls.<br>3. expresses enjoyment in participating in physical experiences. |

| | |
|---|---|
| **Examples of Benchmarks** | The children are sitting in a large circle. A caring adult plays music and asks, “How does this music make you want to move?” The adult starts moving children clockwise around the circle. Briana gallops while Tsama hops. The adult comments, “Look how Briana is using her feet—she’s galloping.” A few children start galloping. The adult then says, “Tsama has a good idea. He’s hopping on one foot.” A few more children hop. The adult maintains the experience based on the children’s interests, talking about the movements the children demonstrate.<br><br>A caring adult has placed a bucket against the wall, near a basket of foam balls. Mira throws a ball that bounces off the wall. Mira says, “I can’t get it in the bucket.” The adult says, “What could you try Mira?” Mira says, “I could move closer.” The adult responds, “Good idea. Let’s see what happens.” Mira moves closer, picks up another ball, and throws it into the basket. The adult comments, “You made a basket. Your idea to move closer worked.” Mira smiles.<br><br>A caring adult reads a book about the zoo to several children. When the adult reaches the page about kangaroos she says, “Let’s all hop like the kangaroos.” They all stand up and hop around the room several times. The adult turns the page and shows the children a picture of an elephant. “Now let’s all get on our hands and feet and walk like the elephants,” she says. The children walk around on all fours and pretend to be elephants.<br><br>Shelly climbs up the steps of the play structure. She holds onto the railing at the top of the slide, sits down with her feet in front of her, and slides down. She runs back around and repeats this action. After a few trips down the slide, she goes to the swings and uses her legs to pump as she swings higher and higher. |

**Adult Supports**

With preschool age children, adults:

- provide space, time, and materials for *each* child to explore and practice large motor activities such as balancing, running, jumping, climbing, throwing, catching, kicking, and bouncing.
- play games with *each* child that involve catching, kicking, and bouncing balls, coaching *each* child and modifying the games to both challenge *each* child and to allow them to be successful.
- provide adaptive large motor equipment that allows *each* child with physical disabilities to practice large motor skills.
- use routine times such as transitions to facilitate physical activity (e.g. walk like a crab or jump like a bunny).
- provide structured (adult-led) and unstructured (child-led) opportunities for physical activities.

**References**


Branta C., Haubenstricker J., & Seefeldt, V. (1984). Age changes in motor skills during childhood and adolescence. *Exercise Sports Science Review, 12,* 467–520.

Goodway, J., Getchell, N., & Raynes, D. (2009). *Active Start: A Statement of Physical Activity Guidelines for Children from Birth to Age Five.* Oxen Hill, MD: American Alliance for Health, Physical Education, Recreation, and Dance.

Haywood, K. M., & Getchell, N. (2009). *Life span motor development (5th Ed.).* Champaign, IL: Human Kinetics.

Stryer B., Toffler I. R., & Lapchick, R. (1998). A developmental overview of child and youth sports in society. *Child Adolescent Psychiatric Clinic North America, 7*, 697–724.

Timmons, B. W., Naylor, P., & Pfeiffer, K. A. (2007). Physical activity for preschool children: How much and how? *Applied Physiology*, *Nutrition, and Metabolism, 32,* 122–134.

Trawick-Smith, J. (2010). *From playpen to playground: The importance of physical play for the motor development of young children*. Reston, VA: Head Start Body Start National Center for Physical Development and Outdoor Play.

U. S. Department of Health and Human Services. (1996). *Physical activity and health: A report of the Surgeon General*. Washington DC: Author.

## Area 8: Physical Well-Being and Motor Development

### *8.3 Small Motor Development*

| Standard | Children develop small motor skills. |
|---|---|
| **Rationale** | Small motor skills require the child to manipulate objects with accurate, controlled, and precise movements. With practice, children also become skilled in self-care skills, such as buttoning, snapping, and zipping. Through manipulating small objects, such as stringing beads, young children gain small muscle control to perform more complex tasks (Case-Smith & Pehoski, 1992). With experience, young children gain skills in using tools such as eating utensils, crayons, and brushes (Henderson & Pehoski, 1995). Initial scribbles become letter-like forms as children watch caregivers model writing (Iowa Department of Education, 2001). These skills provide the basis for handwriting and other small motor skills needed for success in daily life and in school. Caring adults can support children's small motor skills through providing a variety of age appropriate materials and plenty of opportunity for play and exploration. |
| **Benchmarks** | **The child:**<br>1. uses hand-eye coordination to perform self-help and small motor tasks with a variety of manipulative materials such as beads, pegs, shoelaces, and puzzle pieces.<br>2. demonstrates increased skills in using scissors and writing tools for various learning experiences. |
| **Examples of Benchmarks** | Beth paints a picture at the easel and says "I'm done." A caring adult responds, "Where are you going to put your name?" Beth replies, "Here. You do it—Here." She points to the upper left corner. The adult prints 'Beth,' saying the names of the letters as she writes. Beth takes the paintbrush and prints her name in all capital letters below where the adult printed her name.<br><br>Jamar has cerebral palsy. When he tries to spoon up applesauce, the bowl slides away. A caring adult puts a non-slip pad under the bowl and a rubber tube on his spoon. Jamar feeds himself without the bowl slipping.<br><br>Nieseem is trying to zip his jacket, but he can't get the two parts together. "I need help!" he shouts. A caring adult asks, "What's wrong, Nieseem?" Nieseem responds, "I can't get the zipper to work." The adult says, "It is hard. Do you want me to start it for you?" Nieseem says, "Yes." The adult puts the ends of the zipper together and starts the pull. "Here—you can finish it now." Nieseem pulls up the zipper and says, "Let's go outside!" |

| | |
|---|---|
| **Adult Supports** | With preschool age children, adults:<br>• provide a variety of small motor tools and materials (e.g., beads, pegboards, scissors, crayons, paintbrushes, and hammers) that are available and accessible for use in child-directed experiences.<br>• coach *each* child to improve independence in self-help skills such as dressing, toileting, and buttoning.<br>• teach *each* child to use utensils (e.g., spoons, forks, knives) during meals, snacks, and supervised cooking experiences.<br>• provide adaptive equipment that allows *each* child with physical disabilities to increase their fine motor skills.<br>• supervise the use of small materials.<br>• provide plenty of opportunity for children to play and explore their environment. |
| **References** | Case-Smith, J. & Pehoski, C. (Eds.). (1992). *Development of hand skills in the child.* Bethesda, MD: American Occupational Therapy Association.<br><br>Henderson, A. & Pehoski, C. (Eds.). (1995). *Hand function in the child*. St. Louis: Mosby-Year Book.<br><br>Iowa Department of Education. (2001). *Every child reads.* Des Moines, IA: Author. |

## Area 9: Approaches to Learning

### *9.1 Curiosity and Initiative*

| Standard | Children express curiosity, interest, and initiative in exploring the environment, engaging in experiences, and learning new skills. |
|---|---|
| **Rationale** | Erikson (1950) represented the internal conflict of initiative versus guilt as central to the preschool years. Initiative—trying new and familiar skills—is a key part of the development of competence. When the child has lots of failures—especially those that the child sees as his/her "fault"—, the child is less likely to try new experiences and to learn new skills. Children who hesitate and avoid new experiences often have experienced repeated failures (Smiley & Dweck, 1994). Children are more likely to initiate and explore activities when they see that the results depend on their actions (Bandura, 1997). Caring adults influence this development by providing a variety of materials for play and exploration that encourage children to try new experiences at which they are likely, with effort, to be successful (Kopp, 1991). Children are more likely to repeat experiences when caring adults give them encouragement and feedback that links their effort to results (Skinner, 1995). Caring adults can help children learn how to conceptualize and remember new information by answering the "why" questions children have about the way the world works (Siegler, DeLoache, & Eisenberg, 2006). There is always a socio-cultural component to the development and expression of children's imagination which is an important component of curiosity and initiative (Eckhoff & Urbach, 2008). |
| **Benchmarks** | **The child:**<br>1. deliberately chooses to explore a variety of materials and experiences, seeking out new challenges.<br>2. participates in experiences with eagerness, flexibility, imagination, independence, and inventiveness.<br>3. asks questions about a variety of topics.<br>4. repeats skills and experiences to build competence and support the exploration of new ideas. |

| | |
|---|---|
| **Examples of Benchmarks** | Chris stands in front of some blocks and says, “I’m going to build a fire station like the one we visited.” “Good plan, Chris. We need fire stations so fire fighters can put out fires,” responds a caring adult. Chris builds four walls and puts the fire engines inside. He attempts to put blocks on top of the building, but they fall through. Chris says, “The roof keeps falling down.” The caring adult says, “Looks like these blocks aren’t long enough. What else could you use?” “I could put those big pieces of cardboard for the roof,” Chris says. He puts a piece of cardboard on top, stands back, and smiles. The adult smiles and says, “You did it, Chris. You built a fire station to hold all the fire trucks.”<br><br>While looking at the fish tank, Marika says, “Every day the water gets lower and lower in the fish tank.” A caring adult says, “You’re right, it does. Why do you think that happens, Marika?” Marika responds, “I think the fish are thirsty, and every day they drink more and more of the water.”<br><br>Liam, while approaching a caring adult, holds a clipboard with paper and a pencil. Liam says, “Hi, I’m taking a survey. Do you like blue or green better?” The adult responds, “I prefer blue. Why do you ask?” Liam says, “I wanted to know what color everyone likes because I’m going to draw a picture, so I decided to do a survey.” The adult replies, “What a great idea. Let me know what you find.” Liam smiles and says, “I will!” |
| **Adult Supports** | With preschool age children, adults:<br>• provide a safe, hazard-free environment with a variety of developmentally appropriate experiences and materials for child-initiated exploration and play.<br>• encourage *each* child to express his/her own ideas and exercise his/her imagination.<br>• share *each* child’s excitement in discoveries and exploration of the environment.<br>• encourage *each* child to make choices and plan interactions with people and materials in their environment.<br>• provide opportunities and time to explore a variety of developmentally appropriate experiences and materials including those in their larger community environments.<br>• model curiosity and openness about new ideas.<br>• ask children open-ended questions about what they are doing.<br>• directly supervise children by sight and hearing at all times, even when the children are going to sleep, sleeping, are beginning to wake up, or are indoors or outdoors. |

## References


Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York, NY: W. H. Freeman.

Eckhoff, A., & Urbach, J. (2008). Understanding Imaginative Thinking During Childhood: Sociocultural Conceptions of Creativity and Imaginative Thought. *Early Childhood Education Journal*, *36,* 179–185.

Erikson, E. (1950). *Childhood and society.* New York, NY: Norton.

Kopp, C. B. (1991). Young children's progression to self-regulation. In M. Bullock (Ed.). *The development of intentional action: Cognitive, motivational and interactive processes: Vol. 22. Contributions to human development.* Basel: Karger Press.

Siegler, R., DeLoache, J. S., & Eisenberg, N. (2006). *How children develop*. 2nd ed. New York, NY: Worth Publishers.

Skinner, E. A. (1995). *Perceived control, motivation, and coping.* Thousand Oaks, CA: Sage Publications, Inc.

Smiley, P. A., & Dweck, C. S. (1994). Individual differences in achievement goals among young children. *Child Development, 65*, 1723-1743.

## Area 9: Approaches to Learning

### *9.2 Engagement and Persistence*

| Standard | Children purposefully choose and persist in experiences and play. |
|---|---|
| **Rationale** | Children, who believe that success depends on their efforts, and that they are capable of being successful, are more likely to persist (Bandura, 1997). Young children who have been given some autonomy are more likely to complete tasks (Grolnick, Frodi, & Bridges, 1984). The ability to focus attention and concentrate enhances academic learning, including language acquisition and problem solving, as well as social skills and cooperation (Bono & Stifter, 2003; Landry, Smith, Swank, & Miller-Loncar, 2003; Murphy, Laurie-Rose, Brinkman, & McNamara, 2007). In addition, there is a very rapid increase in impulse control during the preschool years (Jones, Rothbart, & Posner, 2003). Play provides an appropriate setting for learning about engagement, persistence, and risk-taking. When children engage with caring adults in playful learning activity, they are both learning and developing their thinking abilities (Siraj-Blacksford, 2009).<br><br>Caring adults encourage persistence by guiding children to tasks where their effort is likely to achieve success, by giving only the minimum help necessary to complete the task, and by giving children specific feedback that their success was due to their efforts (Skinner, 1995). Offering a variety of planned play experiences supports *each* child's optimum physical, mental, emotional, and social development. |
| **Benchmarks** | **The child:**<br>1. persists in and completes a variety of both adult-directed and child-initiated tasks, projects, and experiences of increasing degrees of difficulty.<br>2. maintains concentration on a task despite distractions and interruptions.<br>3. sets goals and follows a plan in order to complete a task.<br>4. chooses to participate in play and learning experiences. |
| **Examples of Benchmarks** | Dee goes to the block corner. She carefully lays out a grid of long blocks, putting a series of blocks that are one, two, or three blocks high in the spaces of the grid. She then takes a car and drives it on the grid. Dee says, "Here's my school. See the parents bringing all the kids to school." The adult says, "You worked a long time to make such a big town with so many streets, houses, and a school, too!" Dee points to a large building and says, "And here's the grocery store. Everyone goes there to get food for supper." The adult responds, "That is an important store in the town." |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Mai chooses a puzzle. After a few minutes, she pushes away the partially completed puzzle. A caring adult says, "Mai, you look like you might be frustrated. Let's turn over all the pieces so you can see each picture." Mai turns the pieces over and looks at all the pieces. The adult points to a rounded shape in the border and says, "Look at this. Can you find a piece with this shape?" Mai fits the shape into the space and says, "I did it! It's a wheel. And here's another wheel." She continues to assemble the puzzle. "I did it!" Mai exclaims. "You got all the pieces into the puzzle," responds the adult. Mai smiles and says, "Let's do another one."<br><br>A caring adult is reading a story about a curious monkey. Geovanni is getting restless. The adult says, "Geovanni, what do you think the monkey will do with the newspapers?" Geovanni replies, "He'll read them." The adult says, "Let's see." She turns the page and continues to read. Geovanni sits quietly, watches, and listens.<br><br>Alexander takes a small piece of playdough, shapes the dough into a round ball, and flattens it by pushing it on top of the table. He tries to pull the flattened dough up but it pulls apart. He repeats the actions, but this time lifts the edges of the flattened piece first. He places it on a tray. He makes five more flattened, round pieces putting each one on the tray until it is full. He tells a nearby adult, "Look I made cookies." The adult says, "I watched you working very hard on making those cookies. How many cookies do you have? Let's count them together." |
| **Adult Supports** | With preschool age children, adults:<br>• provide a safe, hazard-free environment with a variety of developmentally appropriate experiences and materials for child-initiated exploration and play.<br>• provide clearly defined learning spaces to decrease distraction and provide some protection to encourage sustained involvement with peers and materials.<br>• maintain a routine that provides learning experiences through play and allow sufficient time for engagement in self-selected experiences.<br>• guide *each* child's learning and development by responding to questions, ideas, and requests for help, by being present with and fully attending to children, and by individualizing their responses to children.<br>• provide support and assistance as needed to support the involvement of *each* child.<br>• provide adult-directed experiences that are engaging and support the learning of young children in a developmentally appropriate, purposeful, and intentional manner.<br>• ask open-ended questions to support children's learning.<br>• provide a variety of planned play experiences, indoors and outdoors, including experiences that *each* child enjoys. |

## References


Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York, NY: W. H. Freeman.

Bono, M. A., & Stifter, C. A. (2003). Maternal attention-directing strategies and infant focused attention during problem solving. *Infancy*, *4*(2), 235-250.

Grolnick, W., Frodi, A., & Bridges, L. (1984). Maternal control style and the mastery motivation of one-year-olds. *Infant Mental Health Journal, 4*, 72-92.

Jones, L. B., Rothbart, M. K., & Posner, M. I. (2003), Development of executive attention in preschool children. *Developmental Science, 6*, 498–504.

Landry, S. H., Smith, K. E., Swank, P. R., & Miller-Loncar, C. L. (2003). Early maternal and child influences on children's later independent cognitive and social functioning. *Child development*, *71*(2), 358-375.

Murphy, L. M. B., Laurie-Rose, C., Brinkman, T. M., & McNamara, K. A. (2007). Sustained attention and social competence in typically developing preschool-aged children. *Early Child Development and Care*, *177*(2), 133-149.

Siraj-Blacksford, Iram. (2009). Conceptualising progression in the pedagogy of play and sustained shared thinking in early childhood education: A Vygotskian Perspective. *Educational & Child Psychology*, 26(2), 77-89.

Skinner, E. A. (1995). *Perceived control, motivation, and coping.* Thousand Oaks, CA: Sage Publications, Inc.

## Area 9: Approaches to Learning

### *9.3 Reasoning and Problem Solving*

| Standard | Children demonstrate strategies for reasoning and problem solving. |
|---|---|
| **Rationale** | Problem solving is natural for young children, for whom so much of the world is new. Problem solving is learned through daily living and play experiences involving issues important to the child. At the same time, children who repeatedly experience failures and criticism are less likely to attempt new problems (Smiley & Dweck, 1994). "Playful, negotiatory, flexible, mindful interaction early on may become a model later for what you do when you encounter problems" (Bruner, 1985, p. 905). Through active experimentation with materials, children can use trial and error to think through solutions.<br><br>Caring adults help young children develop reasoning and problem solving skills by making problem solving opportunities available as children explore and play with a wide variety of materials and by not intervening too quickly to solve problems for them (Piaget, 1980). During problem solving opportunities, adults talk through the solutions and model appropriate behaviors. |
| **Benchmarks** | **The child:**<br>1. shows interest in and finds a variety of solutions to questions, tasks, or problems.<br>2. recognizes and solves problems through active exploration, including trial and error, and through interactions and discussions with peers and adults.<br>3. shares ideas or makes suggestions of how to solve a problem presented by another person. |
| **Examples of Benchmarks** | José and Michael are running their trucks up the slide while other children are going down the slide. A caring adult says, "It's not safe to have trucks and children on the slide at the same time." José explains, "But the trucks go faster when they go down the slide." The adult replies, "Yes, the trucks do go much faster when they go downhill. What else could we set up to make the trucks go faster?" José suggests, "We could make a slide with blocks." The adult says, "Let's see if that would work." José and Michael take the trucks to the outside block area, where they stack four blocks, and tilt a board against the blocks. They put the trucks down the board. "See, they go really fast," says Michael. The adult replies, "Yes, you built a ramp where trucks can go very fast and it is away from the children who want to use the slide."<br><br>During story time, Damon says, "I can't see." A caring adult says, "What could you do so that you can see better?" Damon looks around, then moves to a spot where he can see the book. |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Gayle is at the water table, trying to fill a bottle by using a funnel to carry the water to the bottle. Most of the water escapes before reaching the bottle. A caring adult says, "I see the water is running out from the hole at the bottom of the funnel. Is there anything else you could use to fill the bottle?" Gayle looks around, then goes to the dramatic play center and returns with a toy coffee pot.<br><br>William is having a hard time zipping up his coat and is getting frustrated. He starts to cry. A caring adult says, "William, why are you so sad?" He replies, "I can't get my coat zipped." The adult says, "Well, what could you do to get your coat zipped up?" William says, "I could ask you for help. Can you zip my coat?" The adult says, "Of course, I can help you. Let's get this zipper started and then see if you can finish it the rest of the way." |
| **Adult Supports** | With preschool age children, adults:<br>• provide opportunities for *each* child to try new ways of using materials.<br>• create safe, hazard-free environments that offer an appropriate amount of stimulation and choice for *each* child to explore and play with using different types of developmentally appropriate equipment and materials.<br>• allow *each* child time to process experiences and information.<br>• select and use appropriate materials that promote creativity, self-expression, number, and emerging literacy skills.<br>• talk through problems with children to model problem-solving with peers and the environment.<br>• hold class meetings to discuss issues that may occur and have children brainstorm solutions to those issues. |
| **References** | Bruner, J. (1985). On teaching thinking: An afterthought. In S. Chipman, J. Segal, & R. Glaser (Eds.). *Thinking and learning skills. Vol. 2: Research and open questions* (pp. 597-608). Hillsdale, NJ: Lawrence Erlbaum Associates.<br><br>Piaget, J. (1980). *Experiments in contradiction.* Chicago, IL: University of Chicago Press.<br><br>Smiley, P. A., & Dweck, C. S. (1994). Individual differences in achievement goals among young children. *Child Development, 65*, 1723-1743. |

## Area 9: Approaches to Learning

### *9.4 Play and Senses*

| Standard | Children engage in play to learn. |
|---|---|
| **Rationale** | Play is so important for optimal child development that it is included as a right of every child in the United Nations High Commission for Human Rights (Convention on the Rights of the Child. General Assembly Resolution 50/155 of 21, 1995). Research documents and continues to explore and support the intrinsic value and positive benefits of play as a positive approach to learning for young children (Hyson, n.d.; Lifter, Foster-Sanda, Arzamarski, Briesch, & McClure, 2011). The most recent position statement on *Developmentally Appropriate Practice in Early Childhood Programs Serving Children Birth through 8* (NAEYC, 2009) describes the foundational and long-term benefits of play that includes the development of self-regulation skills as well as language, cognitive, and social competence.<br><br>Research shows a relationship between play in the natural environment and the positive impact on social-emotional development (Weinstein, Przybylski, & Ryan, 2009), motor development (Fjørtoft, 2001), and cognitive development (Wells, 2000). Outdoor play also boosts exercise levels which helps children reduce body fat (Moore, Gao, Bradlee, Cupples, Sundarajan-Ramamurti, Proctor, & Ellison, 2003) and can help children maintain healthy weights, build stronger muscles and bones, and lower blood and cholesterol levels. A recommended daily dose of at least one hour of outdoor play helps young children achieve healthy fitness levels (NASPE, 2003). |
| **Benchmarks** | **The child:**<br>1. participates in a variety of indoor and outdoor play experiences that increase strength, endurance, and flexibility.<br>2. uses sights, smells, sounds, textures, and tastes to discriminate between and explore experiences, materials, and the environment.<br>3. engages in child-initiated, unstructured play.<br>4. plans and executes play experiences alone and with peers. |

| | |
|---|---|
| **Examples of Benchmarks** | The children are making their own turkey wraps for lunch. Graham puts his turkey on his tortilla and says to the adult, “It smells like smoke!” The adult replies, “Yes, this turkey was cooked with smoke.” Graham says, “I am going to put some cheese, lettuce, and tomatoes on it.” As he puts the tomatoes on, some roll off the tortilla onto his plate. He picks them up with his fingers and says, “These are slippery.”<br><br>Cyndi is climbing on a play structure and announces, “I’m a pirate, and I’m climbing to the top of the mast.” A caring adult says, “You are climbing high in the air, Cyndi.” Cyndi replies, “I’m at the top of the mast now. I can see China!” The adult asks, “What do you see?” Cyndi says, “I can see the tops of the trees, and the road and cars.” The adults says, “You’re so high in the air; you can see farther than I can!” Cyndi responds, “I’m on top of the world!”<br><br>Outside, Isabella and Eduardo are playing in the sandbox. Isabella says, “Let’s pretend we are looking for dinosaur bones.” Eduardo says, “Yeah!” He runs out of the sandbox and comes back with some twigs and acorns. He says, “Let’s bury these. They can be the bones we find!” |
| **Adult Supports** | With preschool age children, adults:<br>• use indoor and outdoor environments as an integral part of *each* child’s active and quiet learning.<br>• encourage *each* child to use all their senses to explore and play with materials.<br>• provide materials in both indoor and outdoor environments that are easily accessible to *each* child.<br>• safeguard the health and safety of each child by introducing non-toxic, developmentally appropriate materials to encourage us of the senses.<br>• provide extended periods of time for children to self-select materials to play with and explore.<br>• interact with children throughout each day having conversations about what a child is doing and experiencing.<br>• adapt materials as needed so that each child can explore the environment through play. |

## References


*Convention on the Rights of the Child. General Assembly Resolution 50/155 of 21.* (1995, December). Retrieved from http://www2.ohchr.org/english/law/crc.htm#art44

Fjørtoft, I. (2001). The natural environment as a playground for children: The impact of outdoor play activities in pre-primary school children. *Early childhood education journal*, *29*(2), 111-117.

Hyson, M. (n.d.). *Research Connections.* Retrieved from http://www.researchconnections.org/files/childcare/pdf/PlayandApproachestoLearning-MarilouHyson-1.pdf

Moore, L. L., Gao, D., Bradlee, M. L., Cupples, L. A., Sundarajan-Ramamurti, A., Proctor, & Ellison, R. C. (2003). Does early physical activity predict body fat change throughout childhood? *Preventive medicine*, *37*(1), 10-17.

National Association for Sports and Physical Education [NASPE]. (2003). *Kids in action: Fitness for children birth to age five.* Reston, VA: NASPE. Retrieved from http://www.aahperd.org/naspe/template.cfm?template=kids_brochure.html

National Association for the Education of Young Children [NAEYC]. (2009). *Position statement: Developmentally appropriate practice in early childhood programs serving children birth through 8.* Retrieved from http://www.naeyc.org/files/naeyc/file/positions/PSDAP.pdf

Weinstein, N., Przybylski, A. K., & Ryan, R. M. (2009). Can nature make us more caring? Effects of immersion in nature on intrinsic aspirations and generosity. *Personality and Social Psychology Bulletin*, *35*(10), 1315-1329.

Wells, N. M. (2000). At home with nature: Effects of “greenness” on children’s cognitive functioning. *Environment and behavior*, *32*(6), 775-795.

## Area 10: Social and Emotional Development

### *10.1 Self*

| Standard | Children express a positive awareness of self in terms of specific abilities, characteristics, and preferences. |
|---|---|
| **Rationale** | One of the most important goals of the preschool years is helping children develop a positive self-concept and self-esteem (Kagan, Moore, & Bredekamp, 1995). Self-concept is the perception that one is capable of successfully making decisions, accomplishing tasks, and meeting goals.<br><br>Young children typically overestimate their own abilities. At the same time, they equate effort and ability assuming that failure represents both a lack of effort and ability (Nicholls, 1978). After repeated failures, some young children have already acquired learned helplessness, a belief that they cannot succeed in anything that they try. Learned helplessness (Dweck & Licht, 1980) affects later subsequent learning. Therefore, it is essential to help young children see themselves as capable learners, develop resilience, and instill genuine feelings of success. During the preschool years, it is important for a child to develop a positive self-concept, not by being told they are special, but by taking initiative and succeeding at challenging tasks while also receiving adult encouragement (FAN, 2000).<br><br>All children including children with diverse needs such as children who are learning English, children with disabilities, or children at risk for disabilities, need the opportunity to make choices. Learning to make choices will allow children to grow and develop into an independent self, one that is connected with their parents, family, community, and society. |
| **Benchmarks** | **The child:**<br>1. expresses a positive sense of self in terms of specific abilities.<br>2. expresses needs, wants, opinions, and feelings in socially appropriate ways.<br>3. demonstrates increasing confidence and independence in a variety of tasks and routines, and expresses pride in accomplishments.<br>4. recognizes own power to make choices. |
| **Examples of Benchmarks** | Rhonda rides her trike up to Julia and says, “Watch me. I can go fast.”<br><br>Sage tells a caring adult, “I need to go to the bathroom.”<br><br>Alea learns to put on all her winter outdoor clothes by herself. She smiles and tells a nearby adult, “Look I did it all by myself.”<br><br>Yesterday, Moses played in the block center and built a tower. Today, he plays at the water table. When he is done at the water table, he states, “I like the water table the best.” |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | At lunch, a caring adult asks Kiera, "Would you like broccoli, carrots, or both with your sandwich?" Kiera responds, "Carrots are my favorite. I want carrots, please."<br><br>After finishing his cereal Max carries his dishes to the sink and places them in the 'dirty' tub. He then goes to the sink and washes his hands. "I'm all cleaned up and ready to play!" he announces. |
| **Adult Supports** | With preschool age children, adults:<br>• provide opportunities for *each* child to develop a sense of his/her physical capabilities.<br>• talk with and listen respectfully to *each* child.<br>• provide *each* child with safe and stimulating settings, both indoors and outdoors, in which to explore.<br>• provide *each* child with opportunities to make meaningful choices and express preferences throughout the day.<br>• encourage *each* child by giving specific feedback that links effort to outcomes and acknowledge achievements.<br>• model respect for diversity.<br>• provide *each* child with opportunities to solve problems on his or her own.<br>• provide opportunities for *each* child to express his/her thoughts and feelings about experiences through a variety of methods, including the use of words in his/her home language.<br>• support children's cultural identities through working with family members to support children's needs.<br>• encourage children's efforts and provide necessary supports when attempting new skills. |
| **References** | Dweck, C. S., & Licht, B. G. (1980). Learned helplessness and intellectual achievement. In J. Garber, & M. E. P. Seligman (Eds.). *Human Helplessness: Theory and Applications.* New York, NY: Academic Press.<br><br>Kagan, S. L., Moore, E., & Bredekamp, S. (1995). *Reconsidering children's early development and learning: Toward common views and vocabulary*. (Report No. 95-03). Washington, DC: National Education Goals Panel.<br><br>Nicholls, J. (1978). The development of the concepts of effort and ability, perceptions of academic attainment, and the understanding that difficult tasks require more ability. *Child Development,* 49, 800-814.<br><br>The Child Mental Health Foundations and Agencies [FAN]. (2000). *A good beginning: Sending America's children to school with the social and emotional competence they need to succeed.* Retrieved from http://www.vidyya.com/archives/0907_2.htm |

## Area 10: Social and Emotional Development

### *10.2 Self-Regulation*

| Standard | Children show increasing ability to regulate their behavior and express their emotions in appropriate ways. |
|---|---|
| **Rationale** | Young children learn to regulate their behavior under the guidance of adults (Shonkoff & Phillips, 2000). The expression of emotion in young children is linked to what they like and want, as well as to what they do not like and do not want (Wellman & Wooley, 1990). Culture influences how emotions develop and how they are displayed in boys and girls (Kitayama & Markus, 1994).<br><br>During early childhood, children learn that everyone has emotions and that they can learn how to tell how others are feeling by observing their expressions of emotions (Hyson, 2003). They also learn that emotions occur in response to different situations and that emotions can be expressed in different ways. While young children's understanding of emotions may be restricted to "mad, sad, glad" at first, they gradually develop more differentiated understandings of emotions such as fear, surprise, and disappointment. Through adult modeling and feedback, young children learn how and when to express emotions in ways that are socially appropriate (Thompson, 1991). Children also learn from adults how to show empathy and display concern over the emotional expressions of peers. Young children are preferred as playmates when they can recognize the emotions of others and show their own emotions in socially appropriate ways (Saarni, Mimme, & Campos, 1997). |
| **Benchmarks** | **The child:**<br>1. demonstrates the ability to monitor his/her own behavior and its effects on others, following and contributing to adult expectations.<br>2. persists with difficult tasks without becoming overly frustrated.<br>3. begins to accept consequences of his/her own actions.<br>4. manages transitions and changes to routines.<br>5. states feelings, needs, and opinions in difficult situations without harming self, others, or property.<br>6. expresses an increasing range and variety of emotions, and transitions between feeling states become smoother. |
| **Examples of Benchmarks** | While Able is playing a letter game on the classroom computer, he looks up and sees another child waiting for a turn on the computer. Able says, "It will be your turn next."<br><br>Rashmita is working on a difficult puzzle. She tries several times to fit each of the pieces together. Even though it is difficult, she keeps working to put it together.<br><br>Oscar left his art materials out at the table where he was working. A caring adult walks up to him and says, "Oscar, you need to put away your materials before going to play somewhere else." Oscar begins to collect the materials. |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | After lunch, Hyejin washes her hands and lays down to nap without a reminder.<br><br>Tristan is angry because he can't have his favorite tricycle. He says to a nearby adult, "I am so mad that Daphne has the trike."<br><br>Manuel is playing outside and doesn't want to go inside. At first he avoids the adult, but when the adult talks to him calmly, he agrees to go inside. |
| **Adult Supports** | With preschool age children, adults:<br>• identify and explain adult expectations while offering *each* child the opportunity to contribute to express thoughts, feelings, and ideas concerning them.<br>• assist *each* child in understanding their feelings and the impact on others.<br>• model empathy and understanding.<br>• make *each* child aware of upcoming changes in schedule or routines.<br>• model self-control.<br>• give *each* child words and gestures to express emotions.<br>• learn key words and phrases in *each* child's home language especially those related to emotions and behavior.<br>• express own emotions in socially appropriate ways. |
| **References** | Hyson, M. C. (2003). Putting early academics in their place. *Educational Leadership,* 60 (7), 20-23.<br><br>Kitayama, S., & Markus, H. (1994). (Eds.) *Emotion and culture.* Washington, DC: American Psychological Association.<br><br>Saarni, C., Mimme, D. L., & Campos, J. J. (1997). Emotional development: Action, communication, and understanding. In W. Damon, & N. Eisenberg, N. (Eds.). *Handbook of child psychology. Vol. III: Social, emotional, and personality development* (pp. 237-310). New York, NY: Wiley.<br><br>Shonkoff, J., & Phillips, D. (2000). *From neurons to neighborhoods.* Washington, DC: National Academy Press.<br><br>Thompson, R. (1991). Emotional regulation and emotional development. *Educational Psychology Review,* 3, 269-307.<br><br>Wellman, H., & Wooley, J. (1990). From simple desires to ordinary beliefs: The early development of everyday psychology. *Cognition,* 35, 134-175. |

## Area 10: Social and Emotional Development

### *10.3 Relationships with Adults*

| Standard | Children relate positively with significant adults. |
|---|---|
| **Rationale** | Young children's school success requires trusting relationships with familiar adults (Howes & Ritchie, 2002; Hyson, 2003). After developing close, affectionate relationships with their primary caregiver (parent, grandparent, foster parent), children can also develop close, affectionate relationships with other familiar, sensitive, and responsive adults who are nurturing and supportive to them (De Schipper, Taevecchio, & Van IJzendoorn, 2008; Sroufe, Fox, & Pancake, 1983). These bonds, referred to as attachment, form the basis for developing reciprocal social relationships with adults and with peers (Thompson, 1998). To feel psychologically safe and free from anxiety, children must feel safe and comfortable with the adults in their lives.<br><br>Children with special needs, especially those with challenging behaviors, may need more support to develop positive relationships. Thus, adults may need to use different strategies to interact with a child and build a positive relationship. |
| **Benchmarks** | **The child:**<br>1. interacts comfortably with familiar adults.<br>2. accepts guidance, comfort, and directions from a range of familiar adults in a variety of environments.<br>3. expresses affection toward familiar adults.<br>4. shows trust in familiar adults.<br>5. seeks help, as needed, from familiar adults. |
| **Examples of Benchmarks** | Dalton interacts with each of the adults in his classroom by talking with each of them about what he did over the weekend.<br><br>Terry is playing outdoors and hesitantly approaches the climber. He looks at a nearby adult, who says, "It's okay, I will not let you fall." Terry then starts to climb up the ladder.<br><br>Kia comes into the classroom slowly. Her eyes are downcast, and she takes long, deep sighs. A caring adult asks her, "Kia, how are you feeling today?" Kia answers, "Grandma's in the hospital. I miss her." The adult responds, "It's hard for her to be gone." The adult rubs Kia's back, saying, "You like spending time with Grandma." Kia puts her arms around the adult.<br><br>Michael runs up to his parents when they come to his preschool and gives them a hug. He turns and with a smile, says, "Bye-bye, teacher. I'll see you tomorrow."<br><br>Mercedes wants to collect pinecones outdoors, but cannot find a container to hold them. She walks up to a caring adult and asks, "Can I have a bucket for these pinecones?" |

| | |
|---|---|
| **Adult Supports** | With preschool age children, adults:<br>• ensure that a small number of consistent, positive, and nurturing adults provide continuity of care and learning experiences.<br>• intentionally spend time with *each* child daily to support positive interactions and relationships.<br>• provide feedback that is warm, positive, and encouraging.<br>• attempt to communicate with and foster relationships with *each* child, irrespective of their ability to speak a child's home language.<br>• show affection and caring to *each* child.<br>• model healthy relationship skills with adults and children. |
| **References** | De Schipper, J. C., Taevecchio, L. W., & Van IJzendoorn, M. H. (2008). Children's attachment relationships with day care caregivers: Associations with positive caregiving and the child's temperament. *Social Development*, *17*(3), 454-470.<br><br>Howes, C., & Ritchie, S. (2002). *A matter of trust: Connecting teachers and learners in the early childhood classroom* (Vol. 84). New York, NY: Teachers College Press.<br><br>Hyson, M. C. (2003). Putting early academics in their place. *Educational Leadership, 60* (7), 20-23.<br><br>Sroufe, L. A., Fox, N. E., & Pancake, V. R. (1983). Attachment and dependency in developmental perspective. *Child Development, 54*, 1615-1627.<br><br>Thompson, R. (1998). Early sociopersonality development. In W. Damon, & N. Eisenberg, (Eds.). *Handbook of child psychology. Vol. III: Social, emotional, and personality development* (pp. 25-104). New York, NY: Wiley. |

## Area 10: Social and Emotional Development

### *10.4 Relationships with Children*

| Standard | Children respond to and initiate appropriate interactions with other children, and form positive peer relationships. |
|---|---|
| **Rationale** | Improvements in social skills and reduction in aggression are linked to increases in communication, perspective-taking, memory skills, and self-regulation (Coie & Dodge, 1997). Young children engage in more positive behavior and social exchanges with friends than with non-friends (Gottman & Graziano, 1983). Children who have the capacity to develop friendships initiate contact, sustain interactions, and resolve conflicts better than do children who do not develop friendships (Gottman & Graziano, 1983). In contrast, poor peer relationships predict later peer rejection (Coie & Dodge, 1997). Poor peer relationships and peer rejection are associated with later problems in school and life, including social isolation, aggression, loneliness, social dissatisfaction, and low self-worth (Hymel, Rubin, Rowden, & LeMare, 1990) as well as low academic performance, school avoidance, truancy, and delinquency (Ladd, 1990; Parker & Asher, 1987).<br><br>Children, who have positive learning experiences and healthy relationships in the first years of life, show a decrease in physical aggression during the preschool years. In contrast, verbal aggression tends to increase, at least until four years of age (Cairns, 1979). Children learn healthy relationship skills and caring behaviors through observing these behaviors in adults.<br><br>Children with disabilities are likely to need support in initiating or joining in play. Some children may need to be paired with more competent peers so that they can serve as models of appropriate interactions. |
| **Benchmarks** | **The child:**<br>1. initiates and sustains positive interactions with peers.<br>2. develops friendships with other peers.<br>3. negotiates with others to resolve disagreements.<br>4. starts to demonstrate turn taking and sharing with others.<br>5. expresses empathy to peers.<br>6. accepts consequences of his/her actions.<br>7. recognizes how behaviors can affect others.<br>8. demonstrates caring behaviors. |
| **Examples of Benchmarks** | Spencer walks up to Kyler carrying a board game and asks Kyler to play with him. The boys agree on who goes first and then take several turns moving their pieces.<br><br>Dashari repeatedly seeks out Margo to play with her.<br><br>Judy and Charlie both want to play with the blue truck. They both say, “Mine” and look at each other a few seconds. Judy says, “I’ll take the yellow one, and you take the blue one.” |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Analese has a significant physical disability and the adult is positioning her on the floor to play. Heidi brings Analese's pillow to support her back, and says, "Analese, here is your pillow."<br><br>Jeffrey is using the glue and paper shapes to make a picture. Arlo walks up to the art area and starts to make a picture of his own. He says to Jeffrey, "Can I have the glue next?" Jeffrey hands him the glue. |
| **Adult Supports** | With preschool age children, adults:<br>• provide time, space, and sufficient materials for children to interact with peers in play experiences.<br>• create situations in which children can work cooperatively.<br>• encourage *each* child, coaching them as needed, to resolve conflicts, respect the rights of others, and reach joint decisions.<br>• point out and draw attention to different perspectives.<br>• create opportunities that allow English language learners to engage with their peers.<br>• model healthy relationship skills with adults and children.<br>• acknowledge positive interactions between children. |
| **References** | Cairns, R. B. (1979). *Social development: The origins and plasticity of interchanges.* San Francisco: Freeman.<br><br>Coie, J. D., & Dodge, K. A. (1997). Aggression and antisocial behavior. In W. Damon, & N. Eisenberg, N. (Eds.). *Handbook of child psychology. Vol. III. Social, emotional, and personality development* (pp. 619-700). New York: Wiley.<br><br>Gottman, J. M., & Graziano, W. G. (1983). How children become friends. *Monographs of the Society for Research in Child Development*, *48*(3), 1-86.<br><br>Hymel, S., Rubin, K., Rowden, S., & LeMare, S. (1990). Children's peer relationships: Longitudinal prediction of internalizing and externalizing problems from middle to late childhood. *Child Development, 61*, 2004-2021.<br><br>Ladd, G. W. (1990). Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment?. *Child development*, *61*(4), 1081-1100.<br><br>Parker, J., & Asher, S. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin, 102*(3), 357-389. |

## Area 11: Communication, Language, and Literacy

### *11.1 Language Understanding and Use*

| Standard | Children understand and use communication and language for a variety of purposes. |
|---|---|
| **Rationale** | During the preschool years, children increase their understanding and use of sentences with greater length and sentence complexity. They also become increasingly able to use language appropriately and effectively in a variety of social contexts (Snow, Griffins, & Burns, 1998). Communication occurs through both verbal and non-verbal means. Although most children move from non-verbal to verbal communication, some children need non-verbal communication aids, such as sign language, picture communication systems, or communication devices. Vocabulary growth is rapid during the preschool years but varies widely among children due to different cultural and economic backgrounds (Hart & Risley, 1995). Most children, ages three to five, are still learning how language works and the rules surrounding it.<br><br>Recent demographic trends show a dramatic increase in culturally and linguistically diverse children (Hobbs & Stoops, 2002). This presents both a challenge and an opportunity for early childhood programs. Many preschool settings are structured to operate according to a well-established school culture. Children in these settings, who are from different cultural and linguistic backgrounds, may experience cultural conflicts because they are accustomed to different ways of learning and communication.<br><br>For young children, the language of the home is the language they use to make and establish meaningful relationships (NAEYC, 1995). The ongoing support and development of the home language serves as a foundation for learning English. Maintaining a child's home language allows children to stay deeply connected to their families, as well as builds their bi-lingual skills (Derman-Sparks & Edwards, 2010).<br><br>When a caring adult supports children's use of the home language, the children's ability to learn increases. Learning a second language can be difficult and people progress at different rates in learning both first and second languages. Children need opportunities to verbalize awareness of language differences and understand that all languages are valuable. Learning through shared experiences helps children become more competent bilingual-bicultural learners (California Department of Education, 2009). |

| | |
|---|---|
| **Rationale (continued)** | Children, who speak a language other than English, typically go through several stages of English language development prior to being considered proficient Krashen & Terrell, 1983). Receptive (listening) skills of language acquisition usually emerge before expressive (speaking) skills. There may be an extended period of time when the child understands some English but relies on the home language, as well as gestures and nonverbal means, to communicate. During this time, the child is attending to and listening to the English language used in the learning environment and beginning to grasp the fundamentals of the language. Gradually, the child begins to use more English words and phrases, often interspersed with the home language. Over time, the child develops more complex vocabulary and grammar, moving toward English language proficiency; how much time this process takes varies from child to child.<br><br>It is important for adults to plan instruction for *each* child based on their stage of language acquisition. Knowing this information allows adults to work with *each* child in their zone of proximal development – the gap that exists between what children can do on their own and what they can do with the support of a caring adult (Vygotsky, 1978). |
| **Benchmarks** | **The child:**<br>1. demonstrates a steady increase in listening (receptive language) and speaking (expressive language) vocabulary.<br>2. initiates, listens, and responds in relationship to the topics of conversations with peers and adults.<br>3. speaks in phrases and sentences of increasing length and complexity.<br>4. follows oral directions that involve several actions.<br>5. asks and answers a variety of questions.<br>6. demonstrates knowledge of the rules of conversations such as taking turns while speaking.<br>**The child, who is an English language learner, also:**<br>7. uses their home language to communicate with people who speak the same home language.<br>8. demonstrates receptive (listening) English language skills to be able to comprehend the English language.<br>9. demonstrates expressive (speaking) English language skills to build speaking capabilities in English.<br>10. demonstrates engagement in English literacy activities to be able to understand and respond to books, storytelling, and songs presented in English. |
| **Examples of Benchmarks** | Drew and a caring adult are eating lunch. Drew says, “My shirt is green like the peas.” The adult responds, “Yes, both your shirt and the peas are green. What else is green?” Drew replies, “Grass and snakes.”<br><br>Tamra says, “Look, a gold button.” A nearby adult says, “It is big gold button, Tamra. We call this big, gold, shiny button a badge. The police officer wears a badge.” Tamra responds, “A gold badge.” |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | A caring adult makes sandwiches from pita bread for snack. The adult asks, "What is different about this bread?" Nelly responds, "The pita bread is like an envelope." Maya adds, "This bread is different. There's no crust." After snack, the adult reads the book, *Bread, Bread, Bread*, to the children. Together, they make a list of all the different kinds of bread in the books and add others they have eaten that weren't in the book. The adult and children also discuss other names for bread.<br><br>While reading *Where's Spot?,* a caring adult asks a variety of questions. "Did Spot have a good hiding place?" Andy searches through his communication book and finds the symbol for "no" and a picture of a tree and puts them in his sentence strip. Andy holds the strip up and shakes his head "no" and then points to the tree. The adult says, "Andy, you think that Spot didn't have a good hiding place. You think that behind the tree would be better." Andy smiles and shakes his head "yes".<br><br>A small group of children are playing a game outside. Maria takes a turn drawing action picture cards from a bag and arranges them in the sequence she wants the others to follow. Once arranged, Maria says, "Hop on one foot, turn around, then sit down." The children perform the actions.<br><br>While on a walk through the neighborhood, Sam discovers a feather. A caring adult walking with Sam asks, "Where do you think the feather came from?" Sam says, "Feathers come from birds. Does it hurt them when they lose their feathers?" The adult says, "No, it's like hair falling out when you wash it." |
| **Adult Supports** | With preschool age children, adults:<br>• model and intentionally teach new vocabulary, by explaining the meaning of new words encountered in conversations, books, songs, and rhymes, and using the new vocabulary repeatedly such as incorporating the vocabulary into play and learning materials.<br>• provide many opportunities daily to engage children in conversations by commenting, asking questions, and responding.<br>• create opportunities for children to practice following simple directions .<br>• position themselves at children's eye level when speaking with them whenever possible.<br>• ask a variety of open-ended (who, why, how, what if) questions based on *each* child's language skills so that all children have opportunities to contribute to conversations and discussions.<br>• understand and accept what stage of language development an English language learner is at and tailor interactions to meet their needs (e.g., use speech and phrases that are predictable and repetitive; make sure your speech matches what you are referring to; serve as an interpreter when needed; use gestures, facial expressions, pictures, and props like puppets or flannel board stories).<br>• intentionally promote the inclusion of all children who have special needs or are English language learners. |

| | |
|---|---|
| **Adult Supports (continued)** | • pair children with special needs or English language learners with helpful peers who can serve as good language and peer models.<br>• use adaptive strategies and equipment (e.g., communication boards, computers, hearing aids, auditory trainers) to facilitate communication with children who have special needs.<br>• learn key words, phrases, and sentences in *each* child's home language and use them in the early care and education setting.<br>• promote the value of bilingualism and strive to maintain the home language.<br>• have parents, or others speaking *each* child's home language, record songs, stories, or rhymes for use in the early care and education setting.<br>• have a consistent daily routine, along with a picture or photo schedule, to use throughout the day to assist children in learning the vocabulary of their setting/classroom.<br>• assist children, as needed, by focusing or redirecting their attention for active engagement in conversation.<br>• listen actively to children's communication efforts.<br>• label classroom materials in English and *each* child's home language. |

**References**


California Department of Education. (2009). *Preschool English learners: Principles and practices to promote language, literacy, and learning: A resource guide* (2nd ed.). Sacramento, CA: California Department of Education.

Derman-Sparks, L., & Edwards, J. O. (2010). *Anti-bias education for young children and ourselves*. Washington, DC: National Association for the Education of Young Children.

Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children.* Baltimore, MD: Paul H. Brookes Publishing Co.

Hobbs, F., & Stoops, N. (2002). *Demographic trends in the 20th century: Census 2000 special reports.* Washington, DC: U.S. Census Bureau, U.S. Government Printing Office.

Krashen, S.D. & Terrell, T.D. (1983). *The natural approach: Language acquisition in the classroom*. London: Prentice Hall Europe.

National Association for the Education of Young Children [NAEYC]. (1995). *Responding to linguistic and cultural diversity: Recommendations for effective early childhood education*. Washington, DC: Author.

Snow, C. E., Burns, M. S., & Griffin, P. (Eds.). (1998). *Preventing reading difficulties in young children.* Washington, DC: National Academy Press.

Vygotsky, L.S. (1978). *Mind in Society*. Cambridge, MA: Harvard University Press

## Area 11: Communication, Language, and Literacy

### *11.2 Early Literacy*

| Standard | Children engage in early reading experiences. |
|---|---|
| **Rationale** | Early, or emergent, literacy skills build on the child's language understanding and use. Language skills are linked to the development of reading (Neuman & Dickinson, 2001). Adults who talk with children about current and past events, people, and objects help children build their language skills. Conversations that analyze a story, back-and-forth exchanges between adults and children during book reading, also help children increase their vocabulary (Dickinson and Sprague, 2001). Dialogic storytelling, when the child is coached to become the story teller and to link the story to the child's life, also appears to increase the child's vocabulary. As young children develop language skills, they acquire the ability to think about language, talk about it, analyze its parts, and judge correct and incorrect forms. This thinking about language is referred to as metalinguistic ability, and is related to early reading skills.<br><br>Additional predictors of early reading include alphabet knowledge, phonological awareness, and emergent writing (Whitehurst & Lonigan, 2001). Phonological processing involves the sensitivity to, manipulation of, and use of sounds in words, and requires understanding of the sounds of language. Phonological awareness includes recognizing and producing rhymes, segmenting words into syllables, and identifying words with the same beginning, middle, or ending sounds. Phonological awareness skills in preschool children are highly predictive of success in early reading skills (Cunningham, 1990; Whitehurst & Lonigan, 2001). Listening to stories builds phonological awareness, listening skills, vocabulary, and comprehension (Jacobs & Crowley, 2007). However, teaching letter names such as through flashcards and worksheets do not appear to increase reading skills, and are developmentally inappropriate (Adams, 1990). Adults can assist children in understanding letters and their sounds by talking about print that is found in the everyday environment such as while reading stories together, writing a child's name on an art creation, talking about letters or words on signs within the neighborhood or various settings, and discussing letters on clothing. Listening to and singing songs with children also build phonological awareness. |

| | |
|---|---|
| **Benchmarks** | **The child:**<br>1. expresses an interest and enjoyment in listening to books and attempts to read familiar books.<br>2. displays book handling knowledge (e.g., turning the book right side up, using left to right sweep, turning one page at a time, recognizing familiar books by cover).<br>3. shows an awareness of environmental print such as pointing to familiar words or letters.<br>4. identifies some alphabet letters by their shapes, especially those in his or her own name.<br>5. recognizes the printed form of his or her name in a variety of contexts.<br>6. shows increasing comprehension of a story through retelling the story and/or recognizing story elements such as the plot or characters.<br>7. demonstrates awareness that language is made up of words, parts of words, and sounds in words. |
| **Examples of Benchmarks** | A caring adult is reading *The Very Hungry Caterpillar* to Dara. Before reading the book, the adult talks about the title and the author and asks, "What do you think the story is going to be about?" Dara replies, "I think it is about a caterpillar, like those fuzzy ones I found yesterday." The adult replies, "Let's read and see what happens."<br><br>A caring adult says, "I want everybody whose name starts with a \k\ sound to stand up." Chris, Candi, and Mark stand up. The adult says, "I hear the \k\ sound starting Chris and Candi. But I hear the \k\ sound ENDING your name, Mark. Please sit down and let's listen for the \m\ sound that starts your name." Mark sits down. The adult says, "Now I want everybody whose name STARTS with an \m\ sound to stand up." Mike, Mark, and Missy stand up. The adult says, "Right. I hear the \m\ sound starting Mike, Mark, and Missy. Good listening."<br><br>Rosita's mom, Consuelo, has tape-recorded some Spanish stories. Rosita brings the tape to a caring adult in her classroom setting. Rosita says, "Here are my mama's stories." The adult says, "Let's set up a listening center so we can listen to the stories together."<br><br>As Lilly completes her drawing, the nearby adult says, "Can I write your name on your paper? We can say the letters of your name, as I write them." |

**Adult Supports**

With preschool age children, adults:

- read a variety of materials (e.g., books, children's magazines, big books, signs, or recipes) aloud many times during the day to children individually or in small and large groups.
- ensure that *each* child has access to a variety of books in English and his/her home language, both fiction and non-fiction, throughout the day.
- display and draw attention to print sources in the environment such as signs, posters, books, and clothing.
- give *each* child opportunities to talk about life experiences and opportunities to retell stories after listening to books (e.g. using story book props).
- provide books in *each* child's home language as well as books representing *each* child's culture.
- provide printed materials in *each* child's home language.
- provide many opportunities for *each* child to hear, say, and sing rhymes in fingerplays, books, and songs.
- provide opportunities for *each* child to identify initial sounds in words such as finding all the objects on a tray that start with the "b" sound.
- incorporate sounds and words from *each* child's home language in daily conversations and activities.
- add letter forms to the sandbox for exploratory play outdoors.
- take books outside for children to read.

**References**


Adams, M. J. (1990). *Learning to read: Thinking and learning about print.* Cambridge, MA: MIT Press.

Cunningham, A. (1990). Explicit versus implicit instruction in phonemic awareness. *Journal of Experimental Child Psychology, 50*, 429-444.

Dickinson, D. K., & Sprague, K. E. (2001). The nature and impact of early childhood care environments on the language and early literacy development of children from low income families. In S. B. Neuman, & D. K. Dickinson (Eds.). *Handbook of Early Literacy Research.* New York: The Guilford Press.

Jacobs, G., & Crowley, K. (2007). *Play, projects and preschool standards: Nurturing children's sense of wonder and joy in learning.* Thousand Oaks, CA: Corwin Press.

Neuman, S.B., & Dickinson, D.K. (2001). *Handbook of literacy research*. New York: The Guilford Press.

Whitehurst, G., & Lonigan, C. (2001). Emergent literacy: Development from prereaders to readers. In S. B. Neuman, & D. K. Dickinson. *Handbook of literacy research* (pp. 11-29). New York: The Guilford Press.

## Area 11: Communication, Language, and Literacy

### *11.3 Early Writing*

| Standard | Children engage in early writing experiences. |
|---|---|
| **Rationale** | Young children attempt to write through scribbling, drawing, and through pictographs that may only have meaning to the child. Children may also use letters, numbers, and letter-like forms in their writing attempts. Children progress through several stages of writing and utensil grips as they practice their skills (Carlson & Cunningham, 1990).<br><br>Young children may use characteristics of an object in their early writing efforts; for example, the word *horse* may be bigger than the word *dog*. Young children may also use letters to represent syllables. The use of invented spellings, in which the child may use unusual representations (e.g., the first and last sounds to represent a word: BT for boat) is strongly related to reading and spelling skills in the early grades (Whitehurst & Lonigan, 2001).<br><br>Children learn how to write more skillfully if they have experiences with reading and writing at the same time. As children start writing, they build understanding that the written word is made up of sounds that convey meaning (Jacobs & Crowley, 2007). As adults talk about letter sounds and draw attention to print in the environment, children build their phonological awareness and early reading skills. In addition, it is important for adults to model writing behaviors to encourage children to imitate the actions in their writing experiences. |
| **Benchmarks** | **The child:**<br>1. attempts to communicate with others using scribbles, shapes, pictures, and/or letters in writing.<br>2. experiments with a variety of writing tools such as pencils, crayons, brushes, and chalk.<br>3. uses expressive (speaking) language to share intended meaning of drawings and writing.<br>4. starts to demonstrate interest in learning to write letters, especially the letters in his/her name. |

| | |
|---|---|
| **Examples of Benchmarks** | The children went to the post office. When they return, many decide to send letters to their friends and parents. Some children choose to use pencils to write. Others use markers to draw while an adult writes a note about the drawing.<br><br>Jessie is painting. A caring adult asks, "Do you want me to print your name on your picture, Jessie, or do you want to write it?" Jessie responds, "You do it." The adult prints "J-e-s-s-i-e", saying the letters as he prints them. Jessie looks at her name, picks up the pencil, and tries to copy it below where the adult had written. She writes the letters, reversing the 'S' and putting the 'E' below the 'I' because she has run out of room on the paper.<br><br>After learning about authors, Marco decides to write a book. He gathers several sheets of paper and draws on each page. Underneath each picture he writes one or two letters to represent what is in the picture. Marco calls a caring adult over to read his book. He points to the first picture with 'C' written underneath it and says, "Once there was a cat." |
| **Adult Supports** | With preschool age children, adults:<br>• provide a variety of writing materials and time for exploration within the inside and outside environments.<br>• encourage *each* child to participate in a variety of writing experiences such as on an easel, chalkboard, sidewalk, or paper on floor.<br>• model using writing for communication such as writing thank-you notes following field trips or after special events such as birthdays.<br>• guide *each* child to hold and use writing tools with the three-point grip but letting the child decide which hand is most comfortable for writing.<br>• encourage children to copy his/her name.<br>• provide adaptive writing tools and materials to aid children with special needs.<br>• encourage children to share and discuss paintings and drawings.<br>• Provide materials and opportunities for *each* child to learn writing in his/her home language.<br>• respond to children's interests in writing and learning letters. |
| **References** | Carlson, K., & Cunningham, J.L. (1990). Effects of pencil diameter on the grapho-motor skills of preschoolers. *Early Childhood Research Quarterly*, 5, 279-93.<br><br>Jacobs, G., & Crowley, K. (2007). *Play, projects and preschool standards: Nurturing children's sense of wonder and joy in learning.* Thousand Oaks, CA: Corwin Press.<br><br>Whitehurst, G., & Lonigan, C. (2001). Emergent literacy: Development from prereaders to readers. In S. B. Neuman, & D. K. Dickinson. *Handbook of literacy research* (pp. 11-29). New York, NY: The Guilford Press. |

## Area 12: Mathematics and Science

### *12.1 Comparison and Number*

| Standard | Children understand counting, ways of representing numbers, and relationships between quantities and numerals. |
|---|---|
| **Rationale** | During the preschool years children construct basic understandings of numbers and amount, or "how many." These understandings will differ from the understandings of older children and adults. Children initially build their understanding of amount through their hands-on actions with objects. After repeated experiences with small quantities of objects, they construct an understanding of discrete numbers.<br><br>Children learn to count with understanding when they match the counting sequence, one to one, with a group of objects (NCTM, 2000). When adults help children link their understandings with objects to conventional numbers, children advance their understanding of quantity (Mix, Huttenlocher, & Levine, 2002). Counting from the first number, and counting on from one number to another, provides the basis for later skills in formal addition (Fuson & Fuson, 1992). |
| **Benchmarks** | **The child:**<br>1. counts to five.<br>2. counts objects, pointing to each one correctly while counting.<br>3. uses language such as more or less to compare quantities.<br>4. begins to recognize small quantities without counting them.<br>5. starts recognizing and naming of numbers. |
| **Examples of Benchmarks** | Amy, Tricia, and Alex are playing in the dramatic play area. Nadia decides to join them. Amy says, "You can't play here now, Nadia—only three can be here." She points to the sign in the interest center with the numeral 3 and three stick figures [3 🚹 🚹 🚹 ]—and then points to each of the three children in the area while saying "One, two, three—that's us. You're four. You have to wait." Nadia goes to the block area.<br><br>Jorge and a caring adult are playing a board game. Jorge rolls a die, looks at the spots on the die, and announces, "I got four." Jorge moves his marker four spaces.<br><br>While outside, children are closely observing a bird feeder. Jacob and Sarah decide to build a bird feeder at the outdoor work bench. As the two children begin to work, a caring adult notices Amira, who speaks little English, watching them. The adult approaches her and explains what's going on by using birds from the dramatic play area. He gestures and points to the feeder as he leads her closer to the work area. Amira points to the feeder and her fingers to show how many birds are there at the same time, changing her fingers as the number of birds change. Jacob and Sarah join her. Communicating with gestures and words, they decide to build the feeder big enough for two birds and get two birds from dramatic play to measure for size. |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Craig sorts his crackers into a line on his plate. He pushes them to one side of the plate one by one, counting aloud, "1, 2, 3, 4, 5, 6." Phillip hears Craig and says, "You got six? No fair. You got more than me." The caring adult says, "Let's count your crackers and see how many you have, Phillip." He moves his crackers and counts, "1, 2, 3, 4, 5, 6." "Oh," says Phillip, "I have six like Craig. I guess we have the same." |
| **Adult Supports** | With preschool age children, adults:<br>• use counting fingerplays, books, and number rhymes repeatedly.<br>• post numerals (e.g., 1, 2, 3) and icons (that is, simple pictures) in the room to indicate group size limits for each learning center.<br>• use daily routines to incorporate meaningful experiences involving counting and one-to-one correspondence, such as setting the table and counting how many items are needed.<br>• provide daily experiences with puzzles and manipulative materials that link numerals to pictures to represent quantity.<br>• provide cooking experiences with recipes that link numerals to pictured objects.<br>• teach children to count in the languages of the children and families in the classroom.<br>• encourage children and families to share fingerplays, songs, or rhymes from their home language.<br>• encourage children to count objects in nature.<br>• provide plenty of opportunity for play and exploration of groups of materials.<br>• interact with children during play and routine experiences talking about numbers and amount as the opportunities arise. |
| **References** | Fuson, K. C., & Fuson, A. M. (1992). Instruction to support children's counting on for addition and counting up for subtraction. *Journal for Research in Mathematics Education, 23*, 72-78.<br><br>Mix, K., Huttenlocher, J., & Levine, S. (2002). *Quantitative development in infancy and early childhood.* New York, NY: Oxford University Press.<br><br>National Council of Teachers of Mathematics [NCTM]. (2000). *Principles and standards for school mathematics.* Reston, VA: National Council of Teachers of Mathematics. |

## Area 12: Mathematics and Science

### *12.2 Patterns*

| Standard | Children understand patterns. |
|---|---|
| **Rationale** | Mathematics is the language and science of patterns (Copley, 1999). Patterns are everywhere; the red and blue stripes on a shirt or a child placing blocks in a sequence such as yellow, yellow, black, yellow, yellow, black. Children learn patterns involving numbers, shapes, measuring, and the results of experiments through manipulating a variety of materials within their environments (Copley, 2000). Recognizing patterns helps children organize their world and facilitates problem solving. Working with and recognizing patterns help children to see relationships between objects and to make predictions. Pattern recognition is an important precursor to algebraic understanding (NCTM, 2000). Seriation, or organizing objects into a sequence, is one pattern such as lining items up from big to little. Children can learn the ordinal numbers, first, second, third, to last, to describe the sequence of objects or events. Caring adults support the learning of patterns through talking about patterns within daily events and play experiences. |
| **Benchmarks** | **The child:**<br>1. recognizes and creates patterns moving from simple to complex.<br>2. predicts what comes next in a pattern. |
| **Examples of Benchmarks** | Ryan is stringing beads. He talks to himself while stringing: “First comes red, then white, then red, then white.” A caring adult says “You made a pattern, Ryan.” Ryan says, “Yep. It’s red, white, red—just like the flag.” The adult responds, “You have the same colors as the American flag; first red, next white. What’s the last color you’ll use?” Ryan says, “Red, the flag starts and ends with red.”<br><br>During a trip to the zoo, a caring adult asks, “Does anyone notice patterns around us?” José says, “The zebra is a pattern. His stripes are black and white.” “And the tiger, too, with orange and black,” exclaims Jenny. “What about the bricks on that building?” asks Natasha. “Some are long and some are short. We did that with the blocks yesterday.”<br><br>As children are gathering for a story, the adult claps a pattern, (e.g., clap, clap, pause, clap, clap, pause). Children join in the pattern as they arrive. The adult asks, “What was my pattern?” Several children call out, “clap, clap, stop.” The adult says, “Who would like to make a pattern for us?” and selects a volunteer. Allie pounds her fists on the floor in a series of three, pauses, and pounds the fists three more times. The other children join in and she asks the children, “What’s my pattern?” Sam says, “Hit, hit, hit, pause. Now my turn.” |

| | |
|---|---|
| **Adult Supports** | With preschool age children, adults:<br>• provide a variety of collections of materials, both natural and designed (human-made), throughout the environment that could be used in meaningful and purposeful ways to create patterns.<br>• use and encourage *each* child to use seriation words, such as first, second, third, and last, to describe *each* child's experiences.<br>• encourage *each* child to make predictions in patterns, measurement, and the results of an experiment.<br>• use English and *each* child's home language to describe patterns.<br>• ask challenging questions to stimulate children's thinking, such as "Can you read your pattern? What if it started here? How would the pattern change? What would you do if you ran out of one of the materials in your pattern?"<br>• provide opportunities for children to observe patterns in the indoor and outdoor environment such as stripes on clothing, daily routines, and stories or rhymes. |
| **References** | Copley, J. V. (1999). *Mathematics in the early years.* Reston, VA: National Council of Teachers of Mathematics.<br><br>Copley, J. V. (2000). *The young child and mathematics.* Washington, DC: National Association for the Education of Young Children.<br><br>National Council of Teachers of Mathematics [NCTM]. (2000). *Principles and standards for school mathematics.* Reston, VA: National Council of Teachers of Mathematics. |

## Area 12: Mathematics and Science

### *12.3 Shapes and Spatial Reasoning*

| Standard | Children understand shapes and spatial relationships. |
|---|---|
| **Rationale** | Recognizing shapes is the beginning of geometric understanding. The understanding of shapes requires children to actively manipulate shapes and explore the characteristics and parts of shapes, rather than simply seeing and naming them (Clements, 2003). Children's concepts of shape may differ from mathematical concepts (e.g., children may limit triangles to only equilateral triangles, or not classify squares as rectangles). Instruction from adults is needed to help children progress from recognizing shapes to understanding the characteristics of shapes.<br><br>Spatial relationships involve ideas related to position (e.g., on, under, next to), direction, and distance (e.g., near, far, next to, close to) of objects in space. Children construct their understanding of space from actively manipulating materials and their own spatial environments (Clements & Battista, 1992). Spatial visualization involves seeing an object from different perspectives and both building and changing mental representations of both two and three dimensional objects (Clements & Sarama, 2004). Through geometric modeling and spatial reasoning, children learn to describe their physical environment and to build problem solving skills (NCTM, 2000). |
| **Benchmarks** | **The child:**<br>1. demonstrates understanding of spatial words such as up, down, over, under, top, bottom, inside, outside, in front, and behind.<br>2. identifies 2- and 3- dimensional shapes.<br>3. notices characteristics, similarities, and differences among shapes, such as corners, points, edges, and sides.<br>4. notices how shapes fit together and can be taken apart to form other shapes. |
| **Examples of Benchmarks** | A caring adult reads a book on shapes aloud. Katy says, "I know where there is a triangle outside." The adult says, "Where?" Katy replies, "On the roof." The adult comments, "Let's look for it when we're outside." While they are outside, several children look for Katy's triangle. One child says, "Is this it?" Katy says, "Oh, I see that triangle, but it's not the one I was looking at." Finally, she points the children to the gable on the roof. "There's my triangle," says Katy. The adult asks, "Are there other triangles outside?" The children look around, and begin to find other triangles.<br><br>Maliyah is playing with blocks. She says to a nearby adult, "Look, two squares make a rectangle and two triangles make a square." |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | While playing in the sandbox, Max says, "I'm filling the cubes with sand!"<br><br>Sharaya and Grant help set the table for lunch. Each child places placemats on the table, in front of each chair. The adult asks, "What will you put on the placemat, Sharaya?" Sharaya picks up one plate and places it on the placemat. The adult says, "You put the plate in the *middle* of the placemat. What else do we need on the placemat?" Grant brings a glass and places it above the plate. The adult says, "Grant, you put the glass *above* the plate." The children announce, "What's next?" Sharaya brings a napkin. A caring adult shows Sharaya and Grant how they can fold the square napkin into a triangle. Sharaya and Grant fold the napkins into triangles.<br><br>Clara is working on a puzzle. She carefully puts pieces next to each other to see if they fit together. She is struggling with fitting a piece in the puzzle. A caring adult says, "Clara, look at the colors on the piece. Do you see green anywhere else in your puzzle?" Clara says, "I see green right here" and places the puzzle piece into the corresponding space. |
| **Adult Supports** | With preschool age children, adults:<br>• provide a variety of books and materials for play and experiences related to shapes and spatial reasoning, such as three dimensional figures and/or blocks.<br>• use shape and spatial words in English and *each* child's home language to describe the environment, both indoors and outdoors.<br>• provide three dimensional objects and containers for exploration and play.<br>• provide puzzles or seriation toys for children to explore how objects fit together.<br>• assist children in recognizing shapes in the environment. |
| **References** | Clements, D. (2003). Teaching geometry. In J. Kilpatrick, W. G. Martin, & D. Schifter (Eds.). *A research companion to principles and standards for school mathematics.* (pp. 151-178). Reston, VA: National Council of Teachers of Mathematics.<br><br>Clements, D. H., & Battista, M. T. (1992). Geometry and spatial reasoning. In D. A. Grouws (Ed.). *Handbook of research on mathematics teaching and learning* (pp. 420-464). New York, NY: Macmillan.<br><br>Clements, D. H., & Sarama, J. (2004). *Engaging young children in mathematics: Standards for early childhood mathematics education.* Mahwah, NJ: Erlbaum.<br><br>National Council of Teachers of Mathematics [NCTM]. (2000). *Principles and standards for school mathematics.* Reston, VA: National Council of Teachers of Mathematics. |

## Area 12: Mathematics and Science

### *12.4 Scientific Reasoning*

| Standard | Children observe, describe, and predict the world around them. |
|---|---|
| **Rationale** | Learning science is an active process (National Research Council, 1996). Children explore earth science (e.g. meteorology, astronomy, and geology), physical science (e.g. physics and chemistry), and life science (e.g. biology, botany, and zoology) as they observe and manipulate objects. Children need to experience the tools of science to develop scientific skills, such as predicting what will occur within an experience, and engineering practices, such as building with blocks. Science process skills permit children to process new experiences through their senses. Children can observe, compare, classify, measure, and communicate their observations of events and objects (Charlesworth & Lind, 1999). They can infer (drawing more meaning than what is visible) and predict future events. They describe those events and compare their predictions with their observations (Piaget, 1980). Science can be incorporated into all daily routines and play experiences as adults provide materials and experiences for children to explore and manipulate, as well as have conversations with children about their explorations, observations, and predictions. |
| **Benchmarks** | **The child:**<br>1. notices, describes, and makes comparisons in the natural and designed world.<br>2. uses scientific tools such as balance scales, measuring tapes, hand lenses, and microscopes to extend the senses and aid understanding.<br>3. makes close observations of living and non-living things.<br>4. organizes, classifies, and records information drawn from observations.<br>5. uses data from observations to describe the world including patterns, cause and effect relationships, and predictions. |

| | |
|---|---|
| **Examples of Benchmarks** | Each child plants a bean seed in a small paper cup, waters the soil, and places them in a sunny window. Each day the adult reminds the children to water their seeds with just a little water. Some children put lots of water on the seeds while some are absent and do not water the seeds. After a few weeks, the adult says, "Look at the seeds. I wonder why some of them did not grow." Monika says, "I watered my seed when I planted it but then I was sick and didn't come. Maybe that's why mine didn't grow." Ivan says, "I watered mine every day a whole lot and mine didn't grow either." The adult asks the children, "Do some of you want to try growing seeds again?" Monika replies, "I want two seeds so I can water one and not the other." The adult asks Monika, "How will you keep track of which seed you will water and which seed you will not water?" Monika answers, "I'll write 'NO' on one cup."<br><br>Roberta is using pipe cleaners to make a bubble wand to dip into a large, shallow container with soap solution. She shapes the pipe cleaners into a square and dips the wand into the bubble solution. She blows and then frowns. A caring adult says, "You look frustrated, Roberta." Roberta explains, "I'm trying to blow a square bubble, but it keeps coming out round." The adult ponders out loud, "I wonder why?" Roberta answers, "I think the pipe cleaners are too bendy. They won't stay square." The adult asks her, "Do you need help finding something that's not so bendy?" Together, they look for something that might stay in a square shape.<br><br>Trevon and Tanajah are rolling a large glass marble and a rubber ball of roughly the same diameter down a ramp, where they have placed a unit block at the end and are trying to knock it down. When Trevon rolls the marble, it knocks the block over, but when he rolls the ball, it bounces off. The children tell a nearby adult what happened. He asks them, "How is the ball different from the marble?" Trevon says, "I think it might be not as heavy." The adult asks, "How can you tell?" Tanajah suggests, "Let's weigh them and see." Together, they take the marble and the ball to the balance scale and determine that the marble is heavier than the ball.<br><br>The neighborhood children are playing tag. A caring adult brings them a snack and sits down with them. Kyoko says, "When we were playing tag yesterday, we decided if you were standing in the tree's shadow, you were safe and couldn't be tagged. But today when we played again, we couldn't stand in the tree's shadow because it was on the other side of the shed." The adult asks, "Hmmm. Are you saying that the shadow moved?" Kyoko answers, "I guess so, but I don't know how. I didn't see it move." Carlos speaks up, "My shadow moves all the time. When I run at the park, sometimes it's in front of me and sometimes it's behind me." Kyoko says, "But you are running. Trees can't run." The adult asks, "How could we find out how the tree shadow moved?" Kyoko suggests, "How about if we sit outside and watch the shadow to see if it moves?" The adult answers, "That could take a really long time. How about if we take a picture of the tree and its shadow? The pictures will help us see if the shadows have moved." |

**Adult Supports**

With preschool age children, adults:

- provide a variety of natural materials during play and experiences that encourage *each* child to explore, describe, and classify.
- provide a variety of materials and experiences that encourage *each* child to observe patterns and to make predictions.
- provide a variety of materials and experiences that encourage *each* child to compare his/her predictions with what he/she sees.
- provide scientific tools (such as balance scales, hand lenses, microscopes, measuring tapes, etc.) and teach *each* child how to use them.
- draw *each* child's attention to phenomena of the natural and designed world.
- provide materials that *each* child can use to record, document, and communicate his/her observations.
- use cooking experiences to measure and predict.
- provide materials and experiences that allow children to explore earth, physical, and life science.
- talk with children about what they are experiencing as they explore the world around them.

**References**


Charlesworth, R., & Lind, K. K. (1999). *Math and science for young children* (3rd ed.). New York, NY: ITP.

National Research Council. (1996). *National science education standards.* Washington, DC: National Academy Press.

Piaget, J. (1980). *Experiments in contradiction.* Chicago, IL: University of Chicago Press.

## Area 12: Mathematics and Science

### *12.5 Scientific Investigations and Problem Solving*

| Standard | Children plan and carry out investigations to answer questions and test solutions to problems. |
|---|---|
| **Rationale** | Problem solving is finding a way to solve a problem that is not immediately evident or reachable. Problem solving is a basic characteristic of mathematical and scientific thinking, as well as a major way to develop both mathematical and scientific knowledge (NCTM, 2000). Problem solving is learned through daily living experiences, including those involving science and math (NCTM, 2000). Children need time to think about problems, permission to experiment and make mistakes, and encouragement to try a variety of strategies (Charlesworth & Lind, 1999). Adults can support scientific thinking and problem solving by encouraging children to ask questions and find solutions or answers to problems, as well as talking with children about their explorations and discoveries. |
| **Benchmarks** | **The child:**<br>1. asks questions of the natural and designed world that can be answered through direct investigation.<br>2. plans and carries out investigations.<br>3. makes close observations to determine causes of problems.<br>4. uses evidence collected from investigations to evaluate results.<br>5. communicates results of investigation to others. |
| **Examples of Benchmarks** | There are magnets on the table with a variety of small metal, plastic, and wooden objects. Kwang touches the magnet to the paper clips, the stapler, the pencil, the penny, and the plastic ruler. A caring adult says, “It looks like the magnet sticks to some things but not others.” Kwang says, “Yes, it sticks to the paper clips but not to the pencil, the penny, or the ruler.” The adult asks, “What else do you think it will stick to in the room?” Kwang answers, “I think it will stick to the table legs.” She reaches down and puts the magnet on the leg. Kwang says, “See, it sticks. It won’t stick to the easel.” The adult asks, “So how are the paper clip and the table leg similar?” Kwang says, “They’re both metal?” The adult says, “Hmm. I wonder if that could have something to do with why the magnets stick. What are you going to try next?”<br><br>During a walk, Ajeet asks, “Why are some trees green and others are red or yellow?” The caring adult responds, “What a great question! How can we find out why?” Ajeet says, “Let’s look for a book in the library.” The adult replies, “Great idea, Ajeet.” |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Maria is building a long, straight ramp structure with unit blocks and two long pieces of wooden cove molding (about 1 ¾ inches wide, with one side flat and the other side with a slight curve that keeps the marbles in place). They are lined up end-to-end. Every time she releases the marble at the top of the ramp, it rolls down the first segment but flies off when it reaches the second segment. She complains to the adult, who comes over and asks her what happened. Maria demonstrates for her. The adult asks, "Where does it come off?" Maria says, "I don't know." The adult suggests, "How about if I let go of the marble up here, and you watch down there to see where it comes off?" Maria says, "Okay." They do this and Maria says, "It came off right there," pointing to where the two segments connect at a slight angle. The adult asks, "So what do you think you can do to keep it on the ramp?" Maria says, "I think it needs to be straighter." The adult says, "Give it a try and see what happens." Maria straightens the ramp segments and tests it again. This time it is successful. The adult comments, "It worked. What are you going to try next?" Maria says, "I'm going to make it longer." |
| **Adult Supports** | With preschool age children, adults:<br>• provide children extended period of time with a variety of materials and experiences that invite investigation and problem solving.<br>• refrain from solving a problem for a child that is within the child's ability to solve on his/her own.<br>• ask children questions and make comments that draw children's attention to questions and problems.<br>• demonstrate curiosity within the routines and experiences of each day.<br>• model a variety of problem solving strategies.<br>• encourage *each* child to use problem solving strategies.<br>• use adaptive devices as needed to help *each* child participate.<br>• facilitate investigation and extend learning in areas of child interest and curiosity.<br>• provide plenty of opportunities for play and exploration. |
| **References** | Charlesworth, R., & Lind, K. K. (1999). *Math and science for young children* (3rd ed.). New York, NY: ITP.<br><br>National Council of Teachers of Mathematics [NCTM]. (2000). *Principles and standards for school mathematics.* Reston, VA: National Council of Teachers of Mathematics. |

## Area 12: Mathematics and Science

### *12.6 Measurement*

| Standard | Children understand comparisons and measurement. |
|---|---|
| **Rationale** | Children organize their experiences through sorting and classifying. Learning vocabulary words related to matching and comparisons helps children focus their attention and find similarities between objects (Sandhoffer & Smith, 1999). Making comparisons, such as similarities and differences, provides a basis for making patterns and generalizations. Exploring graphs provides a basis for understanding numbers, differences in amount, and probability.<br><br>Measurement, which provides a basis for comparison, provides one of the most widely used applications of mathematics (NCTM, 2000). Children begin to understand measurement by comparing the size of objects. Young children explore measurement concepts through exploring and manipulating a variety of objects and materials within their environments. Children need hands-on experiences with objects and language models from adults to learn how to describe relationships involving measurement. |
| **Benchmarks** | **The child:**<br>1. sorts, classifies, and puts objects in series, using a variety of properties.<br>2. makes comparisons between several objects based on one or more attributes, such as length, height, weight, and area, using words such as taller, shorter, longer, bigger, smaller, heavier, lighter, full, empty, length, height, and weight.<br>3. measures objects using non-standard units of measurement, such as using blocks to determine how tall a child is.<br>4. develops an awareness of simple time concepts within his/her daily life such as yesterday, today, tomorrow, morning, afternoon, and night. |
| **Examples of Benchmarks** | Jeffrey and Miguel are eating graham crackers. Miguel breaks his cracker in half and says, “Now I’ve got more than you—you’ve got one and I’ve got two.” Jeffrey breaks his cracker into many small pieces and says, “Now I’ve got more—I’ve got lots.” A caring adult says, “Tell me how they’re different.” Jeffrey says, “I’ve got more.” Miguel says, “But mine are bigger.” The adult says, “But if you put them back together they make the same cracker.”<br><br>Brittany and Kyung are each building a tower with blocks. Brittany says, “Mine’s taller than yours.” Kyung adds a block and says, “Now mine’s taller.” Brittany adds a block, but her tower collapses, taking Kyung’s down also. Brittany suggests, “Let’s build towers that are the same!” They start to build their separate towers, matching block for block. |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | A caring adult has written "How many people are in your family?" on the dry erase board, with columns for 2, 3, 4, 5, 6, and more than 6. During centers, each child draws a picture of all the people in his/her family, counts them (with help), and places his/her name card in the column under the corresponding number for his/her family. During group time, the adult asks, "What can we tell about our families from the chart?" Jan responds, "Lots of names are under the 3." Jason adds, "My name is under the 4; so is Teddy's." Camara says, "Mine is the only card under the last one." The adult asks, "Which one has the most names?" Jan says, "3—look how many: 1…2…3…4…5…6. There are six names under 3." The adult says, "So six children here have families with three people in them."<br><br>Mahvan and Eli disagree over whose shoes are bigger. "Let's measure them!" shouts Eli. A caring adult suggests using crayons to measure the shoes. The children each take off a shoe and then lay the crayons end-to-end along the side of the shoes. "Mine is bigger," announces Mahvan. "How do you know?" asks the adult. "Eli's shoe is two crayons long and mine is two crayons and a little more." |
| **Adult Supports** | With preschool age children, adults:<br>• model the use of language involving comparisons, such as more, less, and same.<br>• provide a variety of developmentally appropriate objects and materials for *each* child to compare and measure.<br>• display information in graph form so that *each* child can compare activities and experiences.<br>• prompt thinking by asking open-ended questions.<br>• provide large amounts of uninterrupted time for active exploration and play with materials that are easily accessible.<br>• provide opportunities to measure and weigh. |
| **References** | National Council of Teachers of Mathematics [NCTM]. (2000). *Principles and standards for school mathematics.* Reston, VA: National Council of Teachers of Mathematics.<br><br>Sandhoffer, C. M., & Smith, L. B. (1999). Learning color words involves learning a system of mappings. *Developmental Psychology, 35*, 668-679. |

## Area 13: Creative Arts

### *13.1 Art*

| Standard | Children participate in a variety of art and sensory-related experiences. |
|---|---|
| **Rationale** | Through repeated experiences, young children gain skills in using a variety of materials for art, such as drawing materials, clay or dough, and paint. Young children move from scribbling to exploring the properties of the media, and to more representational efforts (Kellogg, 1967). Through the arts, children learn to communicate their ideas and experiences while they make choices, gain motor coordination, and explore the physical properties of materials (Althouse, Johnson, & Mitchell, 2003). As children work through their plans to build a structure from blocks or paint a picture, they build their cognitive skills (Seefeldt, 1995). Adults can support the exploration of art and sensory materials through having a variety of materials available as well as plenty of time for creation.<br><br>As children explore writing and drawing materials, their drawings start out simple and may include scribbling, but move into complex pictures as children's small motor skills and knowledge increase. A child's development of small motor skills will influence their writing and drawing capabilities. In addition, exploring art and sensory materials can build scientific thinking and vocabulary as children experience the properties of various items and talk with adults about what they are experiencing. |
| **Benchmarks** | **The child:**<br>1. uses a variety of drawing and art materials, such as drawing utensils, paint, clay, and wood to create original works, form, and meaning.<br>2. expresses ideas about his/her own artwork and the artwork of others, relating artwork to what is happening in the environment or life experiences.<br>3. demonstrates care and persistence when involved in art projects.<br>4. plans and works cooperatively to create drawings, paintings, sculptures, and other art projects. |

| | |
|---|---|
| **Examples of Benchmarks** | Keith dips a brush into yellow paint. He moves the brush across the paper up and down, then side to side. He dips the other brush in blue paint, then paints large slashes back and forth. A caring adult says, "Tell me about your painting, Keith." Keith replies, "I used lots of yellow and blue." Pointing to a green triangular shape, he says "Hey look—there's a Christmas tree!" The adult says, "I see the tree, too—and it is green, like a Christmas tree. When yellow and blue are mixed together, they make green."<br><br>While outside, Ashley gathers a few wooden blocks and arranges them into neat piles. She then collects several small stones and sticks. Ashley carefully arranges the stones and sticks on top and looks at the structure for a moment. She announces, "I made a sculpture!"<br><br>Ana approaches Cecilia and asks, "Do you want to do art with me?" Cecilia responds, "Sure. We can draw a picture. I'll get crayons." Ana says, "I'll get paper to draw on." Both girls sit at the table and begin to color on a sheet of paper. |
| **Adult Supports** | With preschool age children, adults:<br>• provide a variety of art and sensory materials in the indoor and outdoor environments.<br>• encourage *each* child to express his/her own ideas in his/her artwork without providing models, directions, or pre-made components.<br>• display a variety of children's artwork at the eye level of the children.<br>• provide a supportive atmosphere where *each* child is encouraged to share his/her art experiences.<br>• prepare a safe, hazard-free environment with a variety of developmentally appropriate materials that are non-toxic and not harmful if mouthed or swallowed and approved by the Art and Creative Materials Institute (ACMI).<br>• model and encourage *each* child to practice good hand hygiene before and after the use of sensory materials.<br>• talk with children about their creations and discoveries, introducing new vocabulary when applicable. |
| **References** | Althouse, R., Johnson, M. H., & Mitchell, S. (2003). *The colors of learning: Integrating the visual arts into the early childhood curriculum.* New York, NY: Teachers College Press.<br><br>Kellogg, R. (1967). *The psychology of children's art*. New York: Avon.<br><br>Seefeldt, C. (1995). Art: A serious work. *Young Children, 50*(3), 39-45. |

## Area 13: Creative Arts

### *13.2 Music, Rhythm, and Movement*

| Standard | Children participate in a variety of music and movement experiences. |
|---|---|
| **Rationale** | A large body of research reveals that children learn in and through music. Musical activities such as singing, dancing or rhythmic movement, and playing or listening to music can be a catalyst to further learning in a variety of areas, including spatial-temporal reasoning (Rauscher, Shaw, Levine, Wright, Dennis, & Newcomb, 1997). Music provides opportunities for children to connect with their home language and culture, as well as the multiple languages and cultures within their community and the world. In addition, music can be a tool to promote social-emotional development, including self-regulation (Scripp, 2002). Independent music-making arises from children's experiences and provides a foundation to their creative development (Barrett, 2006). Adults can support music and movement by providing a variety of experiences throughout each day using child appropriate music and materials. |
| **Benchmarks** | **The child:**<br>1. participates in a variety of musical and rhythmic experiences, including singing, dancing, listening, playing simple rhythmic and tonal instruments, and creating and singing chants, rhymes, and fingerplays from diverse cultures.<br>2. demonstrates meaningful creative responses when listening to music to reflect the expressive elements of music.<br>3. notices differences in pitch, rhythm, patterns, dynamics, tempo, and timbre.<br>4. demonstrates an awareness of music as part of daily life indoors and outdoors. |
| **Examples of Benchmarks** | Stacey is listening to a song on a portable CD player. She picks up some scarves nearby and begins to move to the music. A caring adult asks, "What does the music make you want to do?" "I'm flying," replies Stacey. The adult says, "You're using your arms to fly. Tell me more about the music." Stacey responds, "It makes me fly fast." "It does have a fast tempo," says the adult.<br><br>A caring adult is singing "Old Macdonald Had a Farm" with Tykisha. The adult says, "What other animal can we sing about?" Tykisha replies, "An elephant." The adult says, "What sound does an elephant make?" Tykisha makes a sound and they keep singing together.<br><br>Children are using maracas they created and are singing a song about rain. The adult says, "Now it's raining just a little bit, just a sprinkle. What will it sound like?" The children play the maracas very softly. The adult says, "Now it's beginning to rain a little bit harder." The children play a little louder. The adult says, "Now it's raining very hard!" The children play very loudly. The adult says, "Now the rain is slowing." The children begin to play gradually slower. |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Children are gathered for circle time. A caring adult sings *Hickory Dickory Dock* and plays rhythm sticks like the "tick tock" at the end of the phrases. She passes out rhythm sticks so the children can imitate her behavior.<br><br>Ryan is pretending that his blocks are boats. A caring adult takes a nearby block and moves it singing, "Row, row, row your boat."<br><br>Veeraj is using spoons as mallets while playing in the kitchen center. He makes drums out of pots, pans, and bowls and listens to the different sounds in the kitchen.<br><br>During a supervised outdoor experience, Kendon runs a stick along a fence to make a variety of sounds. |
| **Adult Supports** | With preschool age children, adults:<br>• provide a variety of music materials daily, keeping them accessible to support child choice during play experiences.<br>• provide a variety of music, including music from children's cultures.<br>• model and encourage *each* child to express themselves through music-related experiences integrated throughout each day, both indoors and outdoors.<br>• incorporate various forms of music and movement into circle or group time.<br>• adapt activities and materials as needed to involve *each* child with disabilities in music and movement activities.<br>• talk about children's rhythms and musical sounds.<br>• sing with children throughout each day. |
| **References** | Barrett, M. S. (2006) Inventing songs, inventing worlds: The "genesis" of creative thought and activity in young children's lives. *International Journal of Early Years Education*, *14* (3), 201-220.<br><br>Rauscher, F. H., Shaw, G. L., Levine, L. J., Wright, E. L., Dennis, W. R., & Newcomb, R. L. (1997). Music training helps preschool children gain long-term spatial-temporal reasoning. *Neurological Research, 19*, 1-7.<br><br>Scripp, L. (2002). An overview on music and learning. In *Critical Links: Learning in the Arts and Student Academic and Social Development* (pp. 101- 136). Washington, DC: Arts Education Partnership. |

## Area 13: Creative Arts

### *13.3 Dramatic Play*

| Standard | Children engage in dramatic play experiences. |
|---|---|
| **Rationale** | Dramatic play, socio-dramatic play, symbolic play, and pretend play are varied terms that describe or refer to play that involves pretending or the use of symbols that represent something real. The importance of dramatic play to all domains of young children's development is well documented (Favazza & Odom, 1997; Hughes, 1999; Bodrova & Leong, 2005). Its potential for addressing academic goals in school settings has also received some attention in the scholarly and professional literature (Bodrova, 2008; Barnett, Jung, Yarosz, Thomas, Hornbeck, Stechuk, & Bhroin, 2007). Some authors have noted a close relationship between various types of dramatic play and specific curricular areas for typically developing children and those with special needs (Brown, Remine, Prescott, & Rickards, 2000; Oliver and Klugman, 2006; Kim, 2005; Burns, 2008; Bray & Cooper, 2007).<br><br>Sociodramatic play (Howes, 1992) helps children learn to communicate, control and compromise, and explore intimacy and trust. In socio-dramatic play, children assume different roles from their experiences, and use their understandings to act out a variety of emotions and social relationships. Children who engage in dramatic play typically show more advanced skills in seeing the perspectives of others and in getting along with peers (Garvey, 1990). |
| **Benchmarks** | **The child:**<br>1. shows creativity and imagination when using materials.<br>2. assumes different roles in dramatic play situations.<br>3. interacts with peers in dramatic play experiences that become more extended and complex. |

| | |
|---|---|
| **Examples of Benchmarks** | Kegan, Hunter, and Diego are in the dramatic play corner. They put on the firefighter hats and yellow slickers and aim a short hose at the playhouse. Diego says, “We need lots of water to put out the fire.” Hunter adds, “We can throw buckets of water at the fire, too.” They start throwing buckets of pretend water at the playhouse. Jessica watches nearby. A caring adult notices and says, “Jessica, do you want to help the firefighters?” Jessica nods. The adult says, “Tell them you want to help fight the fire.” Jessica approaches the boys and says, “I want to fire fight.” “You could drive the fire truck,” responds Kegan. Jessica runs to put on a hat and yellow slicker and gets behind the large steering wheel.<br><br>Children are riding trikes and Nikko decides to use the plastic blocks to make a convenience store next to the trike path. He asks Caroline to get him some sticks for “beef sticks” and tree leaves for “cookies”. Nikko calls to the other children on trikes, “Come over to the store and get some gas and some snacks!”<br><br>An old row boat is buried in the dirt in the corner of the playground. Fishing poles, an old tackle box, and paper worms attached to pipe cleaner hooks are in the boat. Gorja sees the boat and says, “Sammy, come in the boat with me, we have to catch a fish for dinner.” Sammy gets in and they pretend to fish. Jimmy and Callie come to the boat to get the fish taking it to the play house to “cook” it for dinner. |
| **Adult Supports** | With preschool age children, adults:<br>• provide an environment, both indoors and outdoors, with sufficient space, time, props, and materials for *each* child to play and interact with peers, trying on and carrying out different roles, both familiar and unfamiliar.<br>• encourage *each* child, coaching as needed, to interact with peers in dramatic play experiences.<br>• make themselves available to play with children, extending play by adding conversation and materials to scenarios or ideas they have already created.<br>• encourage children to write or draw stories, then act them out.<br>• provide props representing the diverse cultures of the children, community, and world.<br>• provide opportunities for children to see a play or visit a theatre. |

## References


Barnett, S. W., Jung, K., Yarosz, D. J., Thomas, J., Hornbeck, A., Stechuk, R., & Bhroin, M. N. (2007). A slice of life': The interrelationships among art, play and the 'real'life of the young child. *International Journal of Education & the Arts*, *8*(16), 1-25.

Burns, S. (2008). Educational effects of the Tools of the Mind Curriculum: A randomized trial. *Early Childhood Research Quarterly, 23*(3), 299-313.

Bodrova, E. (2008). Make-believe play versus academic skills: A Vygotskian approach to today's dilemma of early childhood education. *European Early Childhood Education Research Journal, 16*(3), 357-369.

Bodrova, E., & Leong, D. J. (2005). The importance of play: Why children need to play. *Early Childhood Today, 20*(1), 6-7.

Bray, P., & Cooper, R. (2007). The play of children with special needs in mainstream and special education settings. *Australian Journal of Early Childhood*, *32*(2), 37-42.

Brown, M. P., Remine, M. D., Prescott, S. J., & Rickards, F. W. (2000). Social interactions of preschoolers with and without impaired hearing in integrated kindergarten. *Journal of Early Intervention, 23*(3), 200-211.

Favazza, P. C., & Odom, S. L. (1997). Promoting positive attitudes of kindergarten-age children toward people with disabilities. *Teaching Exceptional Children, 63*(3), 405-418.

Garvey, C. (1990). *Play.* Cambridge, MA: Harvard University Press.

Howes, C. (1992). *The collaborative construction of pretend.* Albany, NY: State University of New York Press.

Hughes, F. P. (1999). *Children, play, and development* (3rd ed.). Needham Heights, MA: Allyn & Bacon.

Kim, S. D. G. (2005). Kevin:"I gotta get to the market": The development of peer relationships in inclusive early childhood settings. *Early Childhood Education Journal*, *33*(3), 163-169.

Oliver, S. J., & Klugman, E. (2006). Play and standards-driven curricula: Can they work together in preschool? *Exchange, 170*, 12-14.

## Area 14: Social Studies

### *14.1 Awareness of Family and Community*

| Standard | **Children demonstrate an increasing awareness of belonging to a family and community.** |
|---|---|
| **Rationale** | All children live in groups or communities. The family is the most important group to which they belong. In order to function as a member of a family or community, children must learn to communicate, participate, and interact with other members of that group. This socialization process begins with the family and continues as the child moves in and out of social groups throughout life. Membership in a family contributes to a child's identity, which sets the stage for his or her confidence in interacting with others. Becoming a member of the group involves a series of changes, as the child negotiates his/her role in the group and resolves conflicts with other members of the group (Bugental & Goodnow, 1998).<br><br>Preschool children's participation in groups follows a predictable sequence during times of free activity, from isolated play to parallel play to group play (Parten, 1932; Howes, 1987). Groups naturally form based on dominance, affiliation, and differences in attention received by individual members. The interactions among group members in forming groups become less conflictive, more cooperative, and more stable over time (La Freniere & Charlesworth, 1983). The developmental flow of preschoolers' involvement in groups seems to be based on the growth of children's confidence and social skills to be contributing members of a group and using groups to get their needs met. The skills of their participation involve confidence in expressing their own ideas and opinions, as well as respecting those of others. The development of empathy and cooperation skills go hand in hand (Marcus, Teller, & Roke, 1979). The link between group problem-solving and oral language skills has been found in some research (Cooper, 1980). In groups, children can learn group decision-making as well as come to value ideas such as fairness and individual rights (DeVries & Zan, 1994). In the end, as children work in a group they identify their place—their unique contribution to the group—and learn how to be aware of the needs of others in the group. These skills are essential to surviving in society and in the work place. They ensure the cooperative and responsible behaviors that make for successful citizenship. |
| **Benchmarks** | **The child:**<br>1. demonstrates understanding that communities are composed of groups of people who live, play, or work together.<br>2. demonstrates ability to identify communities to which they belong, recognizing that their family is an important group to which they belong.<br>3. demonstrates responsibility as a member of a family or community.<br>4. shows confidence in expressing individual opinions and thoughts while respecting the thoughts and opinions of others.<br>5. participates in creating and following rules and routines.<br>6. demonstrates an initial awareness of the concepts of fairness, individual rights, and welfare of family and community members. |

| | |
|---|---|
| **Examples of Benchmarks** | A home visitor is at Sasha's house. Sasha tells her, "Daddy is not at home because he is in the army a long way away."<br><br>Pedro walks over to the wall where pictures of children's families are displayed. He points to a picture and says, "Here are my two mommies."<br><br>After returning to the classroom from outside, Natalie says, "I never get a turn on a trike." Kareem says, "We were pretending to be on RAGBRAI. It's a really, really long bike race." Natalie says, "It's not fair that you get the trikes so long." A caring adult asks, "What would be a fair rule, Natalie?" Natalie suggests, "Everyone could get five minutes on a trike. We could use the timer like we do for the computers." Kareem says, "But that's not fair. We can't do RAGBRAI in five minutes! It's a long race." The adult says, "Some children disagree with a five-minute limit. Any other solutions?" Marshall suggests, "We could take turns and have a sign-up sheet like we do for cooking. You can ride as long as you want. But when someone signs up, you have to get off in five minutes." The adult responds, "We have two ideas. Everyone uses a timer and gets off in five minutes. Or you use the trike as long as you want, until someone signs up on the list. Then you have to get off in five minutes. How can we decide between the two ideas?" Emily replies, "We can vote." The adult puts two columns on a board, explains the choices, and asks each child to choose. The adult concludes, "Marshall's idea got more votes. Let's try Marshall's idea for a few days and then we'll talk about how it's working."<br><br>Adam, a lead teacher, is helping his preschool group learn to discuss and establish rules for their classroom community. Adam says, "What rules do we need to follow to make our group safe and healthy?" Lacresha says, "We should wash our hands every time we eat!" "And when we come in from outside!" adds Charles. Adam writes each contribution on a white board.<br><br>Paula draws several shapes on a piece of paper. A caring adult says, "Tell me about your picture." Paula smiles and says, "This is me and my mom and my grandma. We are a family. This is a picture of us having dinner together. I love them and they love me." The adult responds, "That is very nice, Paula. I am part of a family too. In my family, I'm the mom." |

| | |
|---|---|
| **Adult Supports** | With preschool age children, adults:<br>• provide *each* child with opportunities to explore their communities through field trips or by inviting guests to share experiences and information.<br>• use project-based learning experiences to learn about families and community members.<br>• ensure that all environments and experiences are designed so all children, including those with special health care needs, can be included.<br>• conduct group meetings where *each* child can participate in discussions of justice, fairness, the welfare of the community and its members, and individual rights in the meaningful context of daily experiences.<br>• initiate conversations as situations arise to discuss individual children's feelings and the feelings of others, and how actions and words affect feelings, in order to promote group interpersonal relationships.<br>• initiate conversations about differences and similarities.<br>• provide children with play experiences and materials to explore social roles in the family and workplace.<br>• invite families to share stories and songs from their culture.<br>• create an environment that welcomes each family and encourages them to participate in program activities and daily routines. |
| **References** | Bugental, D. B., & Goodnow, J. J. (1998). Socialization processes. In W. Damon, & N. Eisenberg (Eds.). *Handbook of child psychology (Vol. 3): Social, emotional, and personality development* (pp. 389-462). New York: John Wiley and Sons.<br><br>Cooper, C. R. (1980). Development of collaborative problem solving among preschool children. *Developmental Psychology, 16*(5), 433-440.<br><br>DeVries, R., & Zan, B. (1994). *Moral classrooms, moral children: Creating a constructivist atmosphere in early education.* New York: Teachers College Press.<br><br>Howes, C. (1987). Social competence with peers in young children: Developmental sequences. *Developmental Review, 7,* 252-272.<br><br>La Freniere, P., & Charlesworth, W. R. (1983). Dominance, attention, and affiliation in a preschool group: A nine-month longitudinal study. *Ethology and Sociobiology, 4*(2), 55-67.<br><br>Marcus, R. F., Teller, S., & Roke, E. J. (1979). Relation between cooperation and empathy in young children. *Developmental Psychology, 15*(3), 346-347.<br><br>Parten, M. B. (1932). Social participation among preschool children. *Journal of Abnormal and Social Psychology, 27*, 243-269. |

## Area 14: Social Studies

### *14.2 Awareness of Culture*

| Standard | Children demonstrate an increasing awareness of culture and diversity. |
|---|---|
| **Rationale** | Culture is "a set of values, beliefs, and ways of thinking about the world that influences everyday behavior" (Trumbull, Rothstein-Fisch, Zepeda, & Gonzalez-Mena, 2005, p. 3). Every individual is rooted in culture and culture influences every aspect of human development. Culture is acquired through the repeated, daily interactions children have with the people around them. Children acquire cultural knowledge as they develop language, learn concepts, and experience being cared for by their parents, family members, teachers, and other people around them (Office of Head Start, 2008).<br><br>The population of the United States and Iowa is growing increasingly diverse with growth being the fastest and most diverse among children (Child and Family Policy Center, 2012). The diversity expresses itself with a variety of cultures, languages, races, religions, abilities, and family structures (Konishi, 2007). Young children in the United States are "not only oriented by their own multiple cultures (e.g. race, ethnicity, age, gender, and family), but also by living and learning within a socioculturally conditioned world filled with many different conditions of cultural difference" (Hyun, 2007, p. 262). Children in such a diverse world feel differently in different places, see things from different perspectives, interact with others in different modes, and listen to different linguistic patterns as they grow up (Hyun, 2007). |
| **Benchmarks** | **The child:**<br>1. demonstrates an awareness of diversity such as family characteristics, adult roles within a family, and skin and hair color.<br>2. demonstrates acceptance of persons from different cultures and ethnic groups.<br>3. demonstrates a sense of belonging, feeling pride in his/her own culture while showing respect for others.<br>4. uses respectful and descriptive language for human similarities and differences, demonstrating curiosity, comfort, ease, and empathy with similarities and differences. |
| **Examples of Benchmarks** | Jane visited Tony's home, where she watched Tony use chopsticks to eat chicken nuggets and carrots. Tony's mom gave Jane a fork as well as a set of chopsticks, but Jane used her fingers when she ate her chicken nuggets. Tony said to Jane, "At my home, I use chopsticks for food. I don't use my fingers. But at school, I use a fork or my fingers." Tony showed Jane how to use chopsticks. Later, she asked Tony's mom if she could take the chopsticks home. |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Sarine announces to her friends, Melissa and Tina, that they are going to have a birthday party. All three girls speak English but Tina is bilingual, speaking Spanish and English. A caring adult is nearby and comments in Spanish about the girls' plans. Tina explains to her friends what the adult has said. "You be the birthday boy," Sarine says to the adult. He sits down at the table in the play kitchen and the girls adorn him with scarves and jewelry. The adult says, "Tina and I can teach you how to sing *Happy Birthday* in Spanish." Tina and the adult sing, and then encourage Melissa and Sarine to repeat the song with them. |
| **Adult Supports** | With preschool age children, adults:<br>• provide *each* child with varied opportunities and materials to build their understanding of diversity in culture, family structure, ability, language, age, and gender in non-stereotypical ways and using project-based strategies.<br>• initiate conversations about differences and similarities.<br>• provide children with opportunities and materials, especially books, that reflect a variety of races, cultures, types of families, and gender roles.<br>• include staff or volunteers from *each* child's culture, race, or ethnicity.<br>• invite families to share stories and songs from their culture.<br>• learn words, phrases, and sentences from *each* child's home language and use this language within interactions and play experiences.<br>• provide materials such as photographs, books, posters, games, clothes, foods, and dolls as well as experiences that reflect *each* child's family, community, or culture.<br>• create an environment that welcomes each family and encourages them to participate in program activities and daily routines. |
| **References** | Child and Family Policy Center. (2012). *Early childhood needs assessment: A baseline on Iowa's young children, capturing the "demand" for early childhood services*. Produced for Early Childhood Iowa. Des Moines, IA: Child and Family Policy Center.<br><br>Hyun, E. (2007). Cultural complexity in early childhood: Imagines of contemporary young children from a critical perspective. *Childhood Education, 83*(5), 261-266.<br><br>Konishi, C. (2007). Learning English as second language: A case study of a Chinese girl in an American preschool. *Childhood Education, 83*(5), 267-272.<br><br>Office of Head Start. (2008). *Revisiting and updating the multicultural principles for Head Start programs serving children ages birth to five: Addressing culture and home language in Head Start programs systems & services.* Retrieved from http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/Dual%20Language%20Learners/ecd/culture_and_diversity/manage_pub_00602a1_092305.html<br><br>Trumbull, E., Rothstein-Fisch, C., Zepeda, M., & Gonzalez-Mena, J. (2005). Bridging cultures in early care and education: A training module, *West Ed R&D Alert*, *7*(3). Retrieved from http://www.wested.org/cs/we/view/feat/178 |

## Area 14: Social Studies

### *14.3 Awareness of the Relationship between People and the Environment in which They Live*

| Standard | Children demonstrate an increasing awareness of the environment in which they live, especially how people (including themselves) relate to that environment. |
|---|---|
| **Rationale** | As children move in the world, they develop awareness of the environments in which they live. Over time, these environments become familiar and new ones are explored. Young children need to be able to think about their surroundings and how settings differ such as how a library is different than a store. Thinking and conceptualizing about environments are shaped by both their observations of the world around them and how they move and interact within that world. These perceptions become recorded memories and may be used to form ideas about the world, even around awareness of ecological issues (DeLoache & Brown, 1983; Cohen & Horm-Wingerd, 1993). Just as relationships with adults and other children shape a child's growth and development, so does their relationship with their environment and the world around them.<br><br>Exploring different settings helps children learn about the roles people play, such as doctors, firefighters, and teachers. As children learn about these roles, they imitate them within their play experiences. Caring adults can talk with children about the roles adults play and the value for communities. Adults can also help children learn about roles and job responsibility by creating opportunities for children to help out. |
| **Benchmarks** | **The child:**<br>1. interacts with the world, first with familiar settings and then with less familiar ones; first in simple ways and then in more complex, exploratory ways.<br>2. constructs meaning about him/herself and the world through relevant and meaningful experiences with objects and their environment.<br>3. recognizes aspects of the environment, such as roads, buildings, trees, gardens, bodies of water, or land formations.<br>4. recognizes that people share the environment with other people, animals, and plants.<br>5. understands that people can take care of the environment through activities and experiences, such as cleaning, conserving, reusing, and recycling.<br>6. recognizes a variety of jobs and the work associated with them. |

| | |
|---|---|
| **Examples of Benchmarks** | A caring adult decides to add new materials to the art area for the children to become familiar with and use. She adds a variety of skin-colored papers, crayons, and colored pencils. Maya moves to the art area and notices the new materials. She says to the adult, "These are new. Can I use them to make a picture?" The adult replies, "Yes, go ahead and take them to the table." Maya begins to select some paper and crayons and says, "These colors are more like our skin than the other paper we used to have."<br><br>Brian is taking a walk with a caring adult. Brian says, "That tree looks like the one in the front yard." The adult responds, "Let's go look at the tree and get a closer look."<br><br>The adult notices that as Shandra is cleaning up her snack area she stops and looks at the trash can and the recycling bin. Shandra decides to rinse her plastic cup out and put it in the recycling bin. She then throws away the rest of the items in the trash can.<br><br>An adult and several children work together to plant a garden. Angie asks, "Can we plant red flowers?" A caring adult responds, "Of course." "My garden at my house has red flowers!" yells Luke. A squirrel sits in the garden. "Why is that squirrel here?" asks Angie. Luke answers, "He lives here. Squirrels live outside like the other animals." |
| **Adult Supports** | With preschool age children, adults:<br>• provide opportunities and materials to play and explore within the inside and outside environments.<br>• provide opportunities to visit new places like museums, parks, and a variety of settings so they can observe and interact with things like roads, buildings, trees, gardens, bodies of water, and land formations.<br>• encourage *each* child, through conversation, to construct meaning of their experiences with their environment and the outside world.<br>• ensure that outdoor play is part of everyday experiences.<br>• thoughtfully design spaces and environments so they are inviting to children and full of interesting things to watch and do, as well as safe to explore.<br>• acquaint children with various community helpers.<br>• give *each* child meaningful jobs, such as watering plants, feeding animals, or cleaning tables.<br>• model appropriate behaviors in caring for the inside and outside environment. |
| **References** | Cohen, S., & Horm-Wingerd, D. (1993). Children and the environment: Ecological awareness among preschool children. *Environment and Behavior*, 25(1), 103-120.<br><br>DeLoache J. S., & Brown, A. L. (1983). Very young children's memory for the location of objects in a large-scale environment. *Child Development*, *54*(4), 888-897. |

## Area 14: Social Studies

### *14.4 Awareness of Past*

| Standard | Children demonstrate an increasing awareness of past events and how those events relate to one's self, family, and community. |
|---|---|
| **Rationale** | Children's experiences shape, and even determine, what they learn. Experiences happen as a chain of events. As memory develops and cognitive skills improve, children can reflect on past events and experiences and "re-experience" them by feeling again the emotions from that event, retelling the stories of the event, and making connections between past events and what they are thinking and feeling at the moment (Friedman, 1991; Friedman, Gardner, & Zubin, 1995).<br><br>Past events are what we call history, which includes the development of historical knowledge and the use of historical knowledge to make sense of the present. For young children, their first explorations with historical knowledge begin with memories of personal experiences and sharing those memories through creative expression like drawing a picture, play-acting, or retelling a story (Nelson & Fivush, 2004). The ability to reflect on the past and make it usable for the future is an important area of learning and essential for development, even survival. For example, a child may burn him/herself on a stove and then recall that past event to learn that the stove, when hot, can be a source of pain. |
| **Benchmarks** | **The child:**<br>1. differentiates between past, present, and future.<br>2. represents events and experiences that occurred in the past through words, play, and art.<br>3. uses past events to construct meaning of the world.<br>4. understands that events happened in the past and that the events relate to oneself, family, community, and culture. |
| **Examples of Benchmarks** | A caring adult is reading a story about a boy who goes on a trip. Sarah says, "I went in a car with my family to visit my grandma last summer. It was a long ride. We were gone six whole days."<br><br>Josiah is working on drawing a picture in the art area. He asks an adult to come over and look at what he is doing. The adult says, "Tell me about what you are drawing." Josiah answers, "This is a picture of the raft I went on in the river with my uncle and my brother last year. It was so much fun. The water splashed me and I got wet. I had to wear a helmet on my head too." |

| | |
|---|---|
| **Examples of Benchmarks (continued)** | Abigail has a pile of photographs and blank paper. "What are you making?" asks a caring adult. Abigail responds, "I'm making a photo album. See? I have pictures of when I was a little baby. That was a long time ago. And here is one from yesterday. And I'll take more pictures tomorrow and next year at my birthday and add them to my photo album too."<br><br>"I got a puppy yesterday," says Marla. "I had a dog," Martin adds, "but he went to live on a farm. That was a long time ago, I was little then." Spencer says, "My mom says I can get a dog, but not until I'm bigger." |
| **Adult Supports** | With preschool age children, adults:<br>• provide opportunities for *each* child to explore materials that can encourage the retelling of stories and past experiences such as dramatic play props, puppets, books, and art materials.<br>• guide children to recall past experiences by asking them open-ended questions.<br>• encourage children to connect their present experiences with their past experiences.<br>• encourage children to bring in photographs to share that demonstrate past events and experiences.<br>• allow flexibility in program or service goals so they can reflect and be responsive to a child's past experiences or the past experiences of her/his family.<br>• engage children often in conversations related to events and experiences in their lives.<br>• take pictures of children's experiences and make them accessible to encourage conversation on past events. |
| **References** | Friedman, W. J. (1991). The development of children's memory for the time of past events. *Child Development, 62, 139- 155.*<br><br>Friedman, W. J., Gardner, A. G., & Zubin, N. R. E. (1995). Children's comparisons of the recency of two events from the past year. *Child Development, 66,* 970-983.<br><br>Nelson, K., & Fivush, R. (2004). The emergence of autobiographical memory: A social cultural developmental theory. *Psychological Review, 111*(2), 486-511. |

# V. ALIGNMENT TO THE IOWA CORE

The alignments of the IELS and the Iowa Core provide a comprehensive framework for curriculum, instruction and assessment practices for children from birth through kindergarten. The alignments link the age-appropriate expectations of infants, toddlers, and preschoolers to knowledge that children should master by the end of kindergarten. Furthermore, they provide an illustration of how learning at the earliest ages cumulatively builds to support academic and social success for children as they enter the K-12 educational system.

Two alignment documents represent how the IELS serve as precursory learning for the expectations of the Iowa Core in kindergarten. One document illustrates an alignment of the IELS with Iowa Core English Language Arts Standards for kindergarten, and the other document illustrates an alignment with Iowa Core Mathematics Standards for content and practices in kindergarten.

Three columns represent the two age groups of the IELS and the kindergarten standards of the Iowa Core. The left column provides the infant/toddler standards, the middle column provides the preschool standards, and the right column provides the kindergarten standards from the Iowa Core:

| Infant/Toddler: Birth – 3 Years | Preschool: 3 – 5 Years | Kindergarten: |
|---|---|---|

The English Language Arts represents six elements of literacy which include the following:

- Reading Standards for Literature (fiction);
- Reading Standards for Informational Texts (nonfiction);
- Reading Standards: Foundational Skills (concepts of print, the alphabetic principle, basic writing conventions);
- Writing Standards;
- Language Standards (English grammar usage); and
- Speaking and Listening Standards.

These elements are identified by headings at the top of applicable pages.

Mathematical content standards are listed by mathematical domains and include the following:

- Counting and Cardinality;
- Operations and Algebraic Thinking;
- Number and Operations in Base Ten;
- Measurement and Data; and
- Geometry.

Each of the domains is identified in the column representing kindergarten.

In addition to the Standards for Mathematical Content, the Iowa Core also identifies Standards for Mathematical Practices. The eight mathematical practices represent abstract, conceptual knowledge that children acquire through repeated learning opportunities with problem solving, reasoning, and communication skills. It is important to note, these are practices rather than measurable skills. The Standards for Mathematical Practices in the Iowa Core are as follows:

1. Make sense of problems and persevere in solving them;
2. Reason abstractly and quantitatively;
3. Construct viable arguments and critique the reasoning of others;
4. Model with mathematics;
5. Use appropriate tools strategically;
6. Attention to precision;
7. Look for and make use of structure; and
8. Look for and express regularity in repeated reasoning.

The Standards for Mathematical Practices are provided in a table format at the end of the alignment document for mathematics. The table illustrates how the infant/toddler and preschool Iowa Early Learning Standards are embedded within each of the Standards for Mathematical Practices. Examples are also provided as to how the mathematical practices might be demonstrated by children in the two age groups.

# IELS Alignment with Iowa CORE English Language Arts: Literature

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Approaches to Learning (Area 2)**<br>**Communication, Language, and Literacy (Area 4)** | **Approaches to Learning (Area 9)**<br>**Communication, Language, and Literacy (Area 11)** | **Key Ideas and Details**<br>**Craft and Structure** |
| *Curiosity and Initiative (2.1)*<br>**Standard:**<br>Infants and toddlers express curiosity and initiative in exploring the environment and learning new skills.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Shows interest in people, objects, and events.<br>2. Uses their senses to choose, explore, and manipulate a variety of objects or toys in a variety of ways.<br>3. Actively plays with or near adults, other children, and materials.<br><br>*Engagement and Persistence (2.2)*<br>**Standard:**<br>Infants and toddlers purposefully choose, engage, and persist in play, experiences, and routines.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Holds attention of familiar adult; for example, through eye contact or vocalizations.<br>2. Repeats familiar and newly learned experiences.<br>3. Actively maintains focus on people or objects of interest, play experiences, or novel events.<br>4. Persists in the face of frustration. | *Curiosity and Initiative (9.1)*<br>**Standard:**<br>Children express curiosity, interest, and initiative in exploring the environment, engaging in experiences, and learning new skills.<br><br>**Benchmarks:**<br>The child:<br>1. Deliberately chooses to explore a variety of materials and experiences, seeking out new challenges.<br>2. Participates in experiences with eagerness, flexibility, imagination, independence, and inventiveness.<br>3. Asks questions about a variety of topics.<br>4. Repeats skills and experiences to build competence and support the exploration of new ideas.<br><br>*Engagement and Persistence (9.2)*<br>**Standard:**<br>Children purposefully choose and persist in experiences and play.<br><br>**Benchmarks:**<br>The child:<br>1. Persists in and completes a variety of both adult-directed and child-initiated tasks, projects, and experiences of increasing degrees of difficulty.<br>2. Maintains concentration on a task despite distractions and interruptions.<br>3. Sets goals and follows a plan in order to complete a task.<br>4. Chooses to participate in play and learning experiences. | 1. With prompting and support, ask and answer questions about key details in a text. **(RL.K.1)**<br>2. With prompting and support, retell familiar stories, including key details. **(RL.K.2)**<br>3. With prompting and support, identify characters, settings, and major events in a story. **(RL.K.3)**<br>4. Ask and answer questions about unknown words in a text. **(RL.K.4)**<br>5. Recognize common types of texts (e.g. storybooks, poems). **(RL.K.5)**<br>6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story. **(RL.K.6)**<br><br>IA. 1. Employ the full range of research-based comprehension strategies, including making connections, determining importance, questioning, visualizing, making inferences, summarizing, and monitoring for comprehension. |

# IELS Alignment with Iowa CORE English Language Arts: Literature

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Reasoning and Problem Solving (2.3)*<br>**Standard:**<br>Infants and toddlers demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Uses an object, action, or adult to accomplish tasks, such as pulling a string to reach a toy or pushing a button to hear a sound.<br>2. Experiments to find a solution to a problem.<br>3. Imitates an adult action to solve a problem.<br>4. Recognizes difficulties and adjusts actions to correct mistakes.<br>5. Seeks and accepts help when encountering a problem beyond his/her ability to solve independently. | *Reasoning and Problem Solving (9.3)*<br>**Standard:**<br>Children demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The child:<br>1. Shows interest in and finds a variety of solutions to questions, tasks, or problems.<br>2. Recognizes and solves problems through active exploration, including trial and error, and through interactions and discussions with peers and adults.<br>3. Shares ideas or makes suggestions of how to solve a problem presented by another person. | |
| *Language Understanding and Use (4.1)*<br>**Standard:**<br>Infants and toddlers understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to the vocalizations and communications, verbal and nonverbal, of familiar adults.<br>2. Uses vocalizations and gestures to gain attention from others.<br>3. Uses vocalizations and gestures to communicate wants and needs.<br>4. Increases both listening (receptive) and speaking (expressive) vocabulary.<br><br>The toddler also:<br>5. Progresses to using words then simple sentences to communicate.<br>6. Participates in conversations, using both receptive (listening) and expressive (speaking) language skills.<br>7. Answers simple questions.<br>8. Follows simple directions. | *Language Understanding and Use (11.1)*<br>**Standard:**<br>Children understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates a steady increase in listening (receptive language) and speaking (expressive language) vocabulary.<br>2. Initiates, listens, and responds in relationship to the topics of conversations with peers and adults.<br>3. Speaks in phrases and sentences of increasing length and complexity.<br>4. Follows oral directions that involve several actions.<br>5. Asks and answers a variety of questions.<br>6. Demonstrates knowledge of the rules of conversations such as taking turns while speaking. | |

# IELS Alignment with Iowa CORE English Language Arts: Literature

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| | The child, who is an English language learner, also:<br>7. Uses their home language to communicate with people who speak the same home language.<br>8. Demonstrates receptive (listening) English language skills to be able to comprehend the English language.<br>9. Demonstrates expressive (speaking) English language skills to build speaking capabilities in English.<br>10. Demonstrates engagement in English literacy activities to be able to understand and respond to books, storytelling, and songs presented in English. | |
| *Early Literacy (4.2)*<br>**Standard:**<br>Infants and toddlers engage in early reading experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Explores or shows interest in books by picking them up, mouthing them, carrying them, or flipping through pages.<br>2. Focuses on a book or the reader when hearing stories read to him/her.<br>3. Gazes at or points to pictures in books.<br>4. Responds to or engages in songs, rhyming games, or fingerplays with a familiar adult.<br><br>The toddler also:<br>5. Points to, labels, and/or talks about objects, events, or people within books.<br>6. Enjoys and repeats songs, rhymes, or fingerplays.<br>7. Answers simple questions related to books. | *Early Literacy (11.2)*<br>**Standard:**<br>Children engage in early reading experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses an interest and enjoyment in listening to books and attempts to read familiar books.<br>2. Displays book handling knowledge (e.g., turning the book right side up, using left to right sweep, turning one page at a time, recognizing familiar books by cover).<br>3. Shows an awareness of environmental print such as pointing to familiar words or letters.<br>4. Identifies some alphabet letters by their shapes, especially those in his/her own name.<br>5. Recognizes the printed form of his or her name in a variety of contexts.<br>6. Shows increasing comprehension of a story through retelling the story and/or recognizing story elements such as plot or characters.<br>7. Demonstrates awareness that language is made up of words, parts of words, and sounds in words. | |

# IELS Alignment with Iowa CORE English Language Arts: Literature

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Communication, Language, and Literacy (Area 4)** | **Communication, Language, and Literacy (Area 11)** | **Integration of Knowledge and Ideas** |
| *Language Understanding and Use (4.1)*<br>**Standard:**<br>Infants and toddlers understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to the vocalizations and communications, verbal and nonverbal, of familiar adults.<br>2. Uses vocalizations and gestures to gain attention from others.<br>3. Uses vocalizations and gestures to communicate wants and needs.<br>4. Increases both listening (receptive) and speaking (expressive) vocabulary.<br><br>The toddler also:<br>5. Progresses to using words then simple sentences to communicate.<br>6. Participates in conversations, using both receptive (listening) and expressive (speaking) language skills.<br>7. Answers simple questions.<br>8. Follows simple directions. | *Language Understanding and Use (11.1)*<br>**Standard:**<br>Children understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates a steady increase in listening (receptive language) and speaking (expressive language) vocabulary.<br>2. Initiates, listens, and responds in relationship to the topics of conversations with peers and adults.<br>3. Speaks in phrases and sentences of increasing length and complexity.<br>4. Follows oral directions that involve several actions.<br>5. Asks and answers a variety of questions.<br>6. Demonstrates knowledge of the rules of conversations such as taking turns while speaking.<br><br>The child, who is an English language learner, also:<br>7. Uses their home language to communicate with people who speak the same home language.<br>8. Demonstrates receptive (listening) English language skills to be able to comprehend the English language.<br>9. Demonstrates expressive (speaking) English language skills to build speaking capabilities in English.<br>10. Demonstrates engagement in English literacy activities to be able to understand and respond to books, storytelling, and songs presented in English. | 7. With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts). **(RL.K.7)**<br>8. (Not applicable to literature) **(RL.K.8)**<br>9. With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories. **(RL.K.9)** |

# IELS Alignment with Iowa CORE English Language Arts: Literature

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Early Literacy (4.2)*<br>**Standard:**<br>Infants and toddlers engage in early reading experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Explores or shows interest in books by picking them up, mouthing them, carrying them, or flipping through pages.<br>2. Focuses on a book or the reader when hearing stories read to him/her.<br>3. Gazes at or points to pictures in books.<br>4. Responds to or engages in songs, rhyming games, or fingerplays with a familiar adult.<br><br>The toddler also:<br>5. Points to, labels, and/or talks about objects, events, or people within books.<br>6. Enjoys and repeats songs, rhymes, or fingerplays.<br>7. Answers simple questions related to books. | *Early Literacy (11.2)*<br>**Standard:**<br>Children engage in early reading experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses an interest and enjoyment in listening to books and attempts to read familiar books.<br>2. Displays book handling knowledge (e.g., turning the book right side up, using left to right sweep, turning one page at a time, recognizing familiar books by cover).<br>3. Shows an awareness of environmental print such as pointing to familiar words or letters.<br>4. Identifies some alphabet letters by their shapes, especially those in his/her own name.<br>5. Recognizes the printed form of his or her name in a variety of contexts.<br>6. Shows increasing comprehension of a story through retelling the story and/or recognizing story elements such as plot or characters.<br>7. Demonstrates awareness that language is made up of words, parts of words, and sounds in words. | |

# IELS Alignment with Iowa CORE English Language Arts: Literature

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Approaches to Learning (Area 2)**<br>**Social & Emotional Development (Area 3)**<br>**Communication, Language, and Literacy (Area 4)**<br>**Social Studies (Area 7)** | **Approaches to Learning (Area 9)**<br>**Social & Emotional Development (Area 10)**<br>**Communication, Language, and Literacy (Area 11)**<br>**Social Studies (Area 14)** | **Range of Reading and Level of Text Complexity** |
| *Engagement and Persistence (2.2)*<br>**Standard:**<br>Infants and toddlers purposefully choose, engage, and persist in play, experiences, and routines.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Holds attention of familiar adult; for example, through eye contact or vocalizations.<br>2. Repeats familiar and newly learned experiences.<br>3. Actively maintains focus on people or objects of interest, play experiences, or novel events.<br>4. Persists in the face of frustration.<br><br>*Reasoning and Problem Solving (2.3)*<br>**Standard:**<br>Infants and toddlers demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Uses an object, action, or adult to accomplish tasks, such as pulling a string to reach a toy or pushing a button to hear a sound.<br>2. Experiments to find a solution to a problem.<br>3. Imitates an adult action to solve a problem.<br>4. Recognizes difficulties and adjusts actions to correct mistakes.<br>5. Seeks and accepts help when encountering a problem beyond his/her ability to solve independently. | *Engagement and Persistence (9.2)*<br>**Standard:**<br>Children purposefully choose and persist in experiences and play.<br><br>**Benchmarks:**<br>The child:<br>1. Persists in and completes a variety of both adult-directed and child-initiated tasks, projects, and experiences of increasing degrees of difficulty.<br>2. Maintains concentration on a task despite distractions and interruptions.<br>3. Sets goals and follows a plan in order to complete a task.<br>4. Chooses to participate in play and learning experiences.<br><br>*Reasoning and Problem Solving (9.3)*<br>**Standard:**<br>Children demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The child:<br>1. Shows interest in and finds a variety of solutions to questions, tasks, or problems.<br>2. Recognizes and solves problems through active exploration, including trial and error, and through interactions and discussions with peers and adults.<br>3. Shares ideas or makes suggestions of how to solve a problem presented by another person. | 1. Actively engage in group reading activities with purpose and understanding. **(RL.K.10)** |

# IELS Alignment with Iowa CORE English Language Arts: Literature

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Self (3.1)*<br>**Standard:**<br>Infants and toddlers display a positive sense of self.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to familiar adults' and children's interactions through using behaviors such as gazing, cuddling, and accepting assistance.<br>2. Explores his/her own body.<br>3. Shows awareness of self, such as responding to own image in mirror.<br>4. Shows preferences for toys and experiences.<br>5. Expresses enjoyment.<br>6. Begins to recognize own power by showing interest in making choices or expressing preferences.<br><br>*Self-Regulation (3.2)*<br>**Standard:**<br>Infants and toddlers show increasing awareness of and ability to express emotions in socially and culturally appropriate ways.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Indicates need for assistance through actions such as crying, gesturing, vocalizing, using words, or approaching familiar adults.<br>2. Comforts him or herself when distressed or tired by actions such as sucking, stroking a blanket, or hugging a toy.<br>3. Responds to emotions expressed by others, for example, by comforting another child or crying in response to the cries of others.<br>4. Shows increasing ability to recognize own feelings, including simple (e.g., mad, glad) and complex (e.g., excited, frustrated, disappointed) feelings. | *Self (10.1)*<br>**Standard:**<br>Children express a positive awareness of self in terms of specific abilities, characteristics, and preferences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses a positive sense of self in terms of specific abilities.<br>2. Expresses needs, wants, opinions, and feelings in socially appropriate ways.<br>3. Demonstrates increasing confidence and independence in a variety of tasks and routines, and expresses pride in accomplishments.<br>4. Recognizes own power to make choices.<br><br>*Self Regulation (10.2)*<br>**Standard:**<br>Children show increasing ability to regulate their behavior and express their emotions in appropriate ways.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates the ability to monitor his/her own behavior and its effects on others, following and contributing to adult expectations.<br>2. Persists with difficult tasks without becoming overly frustrated.<br>3. Begins to accept consequences of his/her own actions.<br>4. Manages transitions and changes to routines.<br>5. States feelings, needs, and opinions in difficult situations without harming self, others, or property.<br>6. Expresses an increasing range and variety of emotions, and transitions between feeling states become smoother. | |

# IELS Alignment with Iowa CORE English Language Arts: Literature

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| 5. Begins to express a range and variety of feelings and emotions through body language, facial expressions, actions, and/or verbal responses.<br>6. Begins to control behavior through following simple rules and limits in a variety of settings.<br>7. Begins to transition between feeling states with guidance from a caring adult.<br><br>*Relationship with Adults (3.3)*<br>**Standard:**<br>Infants and toddlers relate positively with significant adults.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Distinguishes between familiar and unfamiliar adults; for example, is comforted by the sight of the familiar adult or the sound of the familiar adult's voice.<br>2. Accepts assistance and comfort from familiar adults.<br>3. Seeks and maintains contact with familiar adults; for example, by looking at the adult, hearing the adult's voice, or touching the adult.<br>4. Shows discomfort at separations from familiar adults.<br>5. Seeks help from familiar adults in unfamiliar situations.<br>6. Explores the environment, both indoors and outdoors, but may return to a caring adult periodically for security.<br>7. Begins to imitate or portray roles and relationships.<br>8. Imitates adult behaviors. | *Relationships with Adults (10.3)*<br>**Standard:**<br>Children relate positively with significant adults.<br><br>**Benchmarks:**<br>The child:<br>1. Interacts comfortably with familiar adults.<br>2. Accepts guidance, comfort, and directions from a range of familiar adults in a variety of environments.<br>3. Expresses affection toward familiar adults.<br>4. Shows trust in familiar adults.<br>5. Seeks help, as needed, from familiar adults. | |

# IELS Alignment with Iowa CORE English Language Arts: Literature

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Relationships with Children (3.4)*<br>**Standard:**<br>Infants and toddlers respond to and initiate interactions with other children.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Initiates interactions with other children through gestures, vocalizations, facial expressions, and/or body movements.<br>2. Accepts help from familiar adults in interactions with other children.<br>3. Begins to demonstrate empathy for others.<br>4. Starts interacting and playing with peers, including showing interest in them or calling them by name.<br>5. Develops an awareness of his/her behavior and how it affects others.<br>6. Imitates other children's behaviors. | *Relationships with Children (10.4)*<br>**Standard:**<br>Children respond to and initiate appropriate interactions with other children, and form positive peer relationships.<br><br>**Benchmarks:**<br>The child:<br>1. Initiates and sustains positive interactions with peers.<br>2. Develops friendships with other peers.<br>3. Negotiates with others to resolve disagreements.<br>4. Starts to demonstrate turn taking and sharing with others.<br>5. Expresses empathy to peers.<br>6. Accepts consequences of his/her actions.<br>7. Recognizes how behaviors can affect others.<br>8. Demonstrates caring behaviors. | |
| *Language Understanding and Use (4.1)*<br>**Standard:**<br>Infants and toddlers understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to the vocalizations and communications, verbal and nonverbal, of familiar adults.<br>2. Uses vocalizations and gestures to gain attention from others.<br>3. Uses vocalizations and gestures to communicate wants and needs.<br>4. Increases both listening (receptive) and speaking (expressive) vocabulary.<br><br>The toddler also:<br>5. Progresses to using words then simple sentences to communicate.<br>6. Participates in conversations, using both receptive (listening) and expressive (speaking) language skills.<br>7. Answers simple questions.<br>8. Follows simple directions. | *Language Understanding and Use (11.1)*<br>**Standard:**<br>Children understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates a steady increase in listening (receptive language) and speaking (expressive language) vocabulary.<br>2. Initiates, listens, and responds in relationship to the topics of conversations with peers and adults.<br>3. Speaks in phrases and sentences of increasing length and complexity.<br>4. Follows oral directions that involve several actions.<br>5. Asks and answers a variety of questions.<br>6. Demonstrates knowledge of the rules of conversations such as taking turns while speaking. | |

# IELS Alignment with Iowa CORE English Language Arts: Literature

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| | The child, who is an English language learner, also:<br>7. Uses their home language to communicate with people who speak the same home language.<br>8. Demonstrates receptive (listening) English language skills to be able to comprehend the English language.<br>9. Demonstrates expressive (speaking) English language skills to build speaking capabilities in English.<br>10. Demonstrates engagement in English literacy activities to be able to understand and respond to books, storytelling, and songs presented in English. | |
| *Early Literacy (4.2)*<br>**Standard:**<br>Infants and toddlers engage in early reading experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Explores or shows interest in books by picking them up, mouthing them, carrying them, or flipping through pages.<br>2. Focuses on a book or the reader when hearing stories read to him/her.<br>3. Gazes at or points to pictures in books.<br>4. Responds to or engages in songs, rhyming games, or fingerplays with a familiar adult.<br><br>The toddler also:<br>5. Points to, labels, and/or talks about objects, events, or people within books.<br>6. Enjoys and repeats songs, rhymes, or fingerplays.<br>7. Answers simple questions related to books. | *Early Literacy (11.2)*<br>**Standard:**<br>Children engage in early reading experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses an interest and enjoyment in listening to books and attempts to read familiar books.<br>2. Displays book handling knowledge (e.g., turning the book right side up, using left to right sweep, turning one page at a time, recognizing familiar books by cover).<br>3. Shows an awareness of environmental print such as pointing to familiar words or letters.<br>4. Identifies some alphabet letters by their shapes, especially those in his/her own name.<br>5. Recognizes the printed form of his or her name in a variety of contexts.<br>6. Shows increasing comprehension of a story through retelling the story and/or recognizing story elements such as plot or characters.<br>7. Demonstrates awareness that language is made up of words, parts of words, and sounds in words. | |

# IELS Alignment with Iowa CORE English Language Arts: Literature

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Awareness of Family and Community (7.1)*<br>**Standard:**<br>Infants and toddlers demonstrate a sense of belonging within their family, program, and other social settings or groups.<br><br>**Benchmarks:**<br>The infant and toddler:<br>1. Expresses enjoyment at being in a familiar setting or group.<br>2. Recognizes familiar adults and uses them to determine safety during exploration.<br>3. Freely explores and plays within familiar settings. | *Awareness of Family and Community (14.1)*<br>**Standard:**<br>Children demonstrate an increasing awareness of belonging to a family and community.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates understanding that communities are composed of groups of people who live, play, or work together.<br>2. Demonstrates ability to identify communities to which they belong, recognizing that their family is an important group to which they belong.<br>3. Demonstrates responsibility as a member of a family or community.<br>4. Shows confidence in expressing individual opinions and thoughts while respecting the thoughts and opinions of others.<br>5. Participates in creating and following rules and routines.<br>6. Demonstrates an initial awareness of the concepts of fairness, individual rights, and welfare of family and community members. | |
| *Exploration of the Environment (7.3)*<br>**Standard:**<br>Infants and toddlers explore new environments with interest and recognize familiar places.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Demonstrates interest and curiosity within familiar and unfamiliar settings.<br>2. Explores and plays with new, as well as familiar objects, in the environment using all five senses. | *Awareness of Past (14.4)*<br>**Standard:**<br>Children demonstrate an increasing awareness of past events and how those events relate to one's self, family, and community.<br><br>**Benchmarks:**<br>The child:<br>1. Differentiates between past, present, and future.<br>2. Represents events and experiences that occurred in the past through words, play, and art.<br>3. Uses past events to construct meaning of the world.<br>4. Understands that events happened in the past and that the events relate to oneself, family, community, and culture. | |

# IELS Alignment with Iowa CORE English Language Arts: Informational Text

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Approaches to Learning (Area 2)**<br>**Communication, Language, and Literacy (Area 4)** | **Approaches to Learning (Area 9)**<br>**Communication, Language, and Literacy (Area 11)** | **Key Ideas and Details**<br>**Craft and Structure** |
| *Curiosity and Initiative (2.1)*<br>**Standard:**<br>Infants and toddlers express curiosity and initiative in exploring the environment and learning new skills.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Shows interest in people, objects, and events.<br>2. Uses their senses to choose, explore, and manipulate a variety of objects or toys in a variety of ways.<br>3. Actively plays with or near adults, other children, and materials.<br><br>*Engagement and Persistence (2.2)*<br>**Standard:**<br>Infants and toddlers purposefully choose, engage, and persist in play, experiences, and routines.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Holds attention of familiar adult; for example, through eye contact or vocalizations.<br>2. Repeats familiar and newly learned experiences.<br>3. Actively maintains focus on people or objects of interest, play experiences, or novel events.<br>4. Persists in the face of frustration. | *Curiosity and Initiative (9.1)*<br>**Standard:**<br>Children express curiosity, interest, and initiative in exploring the environment, engaging in experiences, and learning new skills.<br><br>**Benchmarks:**<br>The child:<br>1. Deliberately chooses to explore a variety of materials and experiences, seeking out new challenges.<br>2. Participates in experiences with eagerness, flexibility, imagination, independence, and inventiveness.<br>3. Asks questions about a variety of topics.<br>4. Repeats skills and experiences to build competence and support the exploration of new ideas.<br><br>*Engagement and Persistence (9.2)*<br>**Standard:**<br>Children purposefully choose and persist in experiences and play.<br><br>**Benchmarks:**<br>The child:<br>1. Persists in and completes a variety of both adult-directed and child-initiated tasks, projects, and experiences of increasing degrees of difficulty.<br>2. Maintains concentration on a task despite distractions and interruptions.<br>3. Sets goals and follows a plan in order to complete a task.<br>4. Chooses to participate in play and learning experiences. | 1. With prompting and support, ask and answer questions about key details in a text. **(RI.K.1)**<br>2. With prompting and support, identify the main topic and retell key details of a text. **(RI.K.2)**<br>3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. **(RI.K.3)**<br>4. With prompting and support, ask and answer questions about unknown words in a text. **(RI.K.4)**<br>5. Identify the front cover, back cover, and title page of a book. **(RI.K.5)**<br>6. Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text. **(RI.K.6)**<br><br>IA. 1. Employ the full range of research-based comprehension strategies, including making connections, determining importance, questioning, visualizing, making inferences, summarizing, and monitoring for comprehension. |

# IELS Alignment with Iowa CORE English Language Arts: Informational Text

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Reasoning and Problem Solving (2.3)*<br>**Standard:**<br>Infants and toddlers demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Uses an object, action, or adult to accomplish tasks, such as pulling a string to reach a toy or pushing a button to hear a sound.<br>2. Experiments to find a solution to a problem.<br>3. Imitates an adult action to solve a problem.<br>4. Recognizes difficulties and adjusts actions to correct mistakes.<br>5. Seeks and accepts help when encountering a problem beyond his/her ability to solve independently. | *Reasoning and Problem Solving (9.3)*<br>**Standard:**<br>Children demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The child:<br>1. Shows interest in and finds a variety of solutions to questions, tasks, or problems.<br>2. Recognizes and solves problems through active exploration, including trial and error, and through interactions and discussions with peers and adults.<br>3. Shares ideas or makes suggestions of how to solve a problem presented by another person. | |
| *Language Understanding and Use (4.1)*<br>**Standard:**<br>Infants and toddlers understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to the vocalizations and communications, verbal and nonverbal, of familiar adults.<br>2. Uses vocalizations and gestures to gain attention from others.<br>3. Uses vocalizations and gestures to communicate wants and needs.<br>4. Increases both listening (receptive) and speaking (expressive) vocabulary.<br><br>The toddler also:<br>5. Progresses to using words then simple sentences to communicate.<br>6. Participates in conversations, using both receptive (listening) and expressive (speaking) language skills.<br>7. Answers simple questions.<br>8. Follows simple directions. | *Language Understanding and Use (11.1)*<br>**Standard:**<br>Children understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates a steady increase in listening (receptive language) and speaking (expressive language) vocabulary.<br>2. Initiates, listens, and responds in relationship to the topics of conversations with peers and adults.<br>3. Speaks in phrases and sentences of increasing length and complexity.<br>4. Follows oral directions that involve several actions.<br>5. Asks and answers a variety of questions.<br>6. Demonstrates knowledge of the rules of conversations such as taking turns while speaking. | |

# IELS Alignment with Iowa CORE English Language Arts: Informational Text

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| | The child, who is an English language learner, also:<br>7. Uses their home language to communicate with people who speak the same home language.<br>8. Demonstrates receptive (listening) English language skills to be able to comprehend the English language.<br>9. Demonstrates expressive (speaking) English language skills to build speaking capabilities in English.<br>10. Demonstrates engagement in English literacy activities to be able to understand and respond to books, storytelling, and songs presented in English. | |
| *Early Literacy (4.2)*<br>**Standard:**<br>Infants and toddlers engage in early reading experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Explores or shows interest in books by picking them up, mouthing them, carrying them, or flipping through pages.<br>2. Focuses on a book or the reader when hearing stories read to him/her.<br>3. Gazes at or points to pictures in books.<br>4. Responds to or engages in songs, rhyming games, or fingerplays with a familiar adult.<br><br>The toddler also:<br>5. Points to, labels, and/or talks about objects, events, or people within books.<br>6. Enjoys and repeats songs, rhymes, or fingerplays.<br>7. Answers simple questions related to books. | *Early Literacy (11.2)*<br>**Standard:**<br>Children engage in early reading experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses an interest and enjoyment in listening to books and attempts to read familiar books.<br>2. Displays book handling knowledge (e.g., turning the book right side up, using left to right sweep, turning one page at a time, recognizing familiar books by cover).<br>3. Shows an awareness of environmental print such as pointing to familiar words or letters.<br>4. Identifies some alphabet letters by their shapes, especially those in his/her own name.<br>5. Recognizes the printed form of his or her name in a variety of contexts.<br>6. Shows increasing comprehension of a story through retelling the story and/or recognizing story elements such as plot or characters.<br>7. Demonstrates awareness that language is made up of words, parts of words, and sounds in words. | |

# IELS Alignment with Iowa CORE English Language Arts: Informational Text

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Communication, Language, and Literacy (Area 4)** | **Communication, Language, and Literacy (Area 11)** | **Integration of Knowledge and Ideas** |
| *Language Understanding and Use (4.1)*<br>**Standard:**<br>Infants and toddlers understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to the vocalizations and communications, verbal and nonverbal, of familiar adults.<br>2. Uses vocalizations and gestures to gain attention from others.<br>3. Uses vocalizations and gestures to communicate wants and needs.<br>4. Increases both listening (receptive) and speaking (expressive) vocabulary.<br><br>The toddler also:<br>5. Progresses to using words then simple sentences to communicate.<br>6. Participates in conversations, using both receptive (listening) and expressive (speaking) language skills.<br>7. Answers simple questions.<br>8. Follows simple directions. | *Language Understanding and Use (11.1)*<br>**Standard:**<br>Children understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates a steady increase in listening (receptive language) and speaking (expressive language) vocabulary.<br>2. Initiates, listens, and responds in relationship to the topics of conversations with peers and adults.<br>3. Speaks in phrases and sentences of increasing length and complexity.<br>4. Follows oral directions that involve several actions.<br>5. Asks and answers a variety of questions.<br>6. Demonstrates knowledge of the rules of conversations such as taking turns while speaking.<br><br>The child, who is an English language learner, also:<br>7. Uses their home language to communicate with people who speak the same home language.<br>8. Demonstrates receptive (listening) English language skills to be able to comprehend the English language.<br>9. Demonstrates expressive (speaking) English language skills to build speaking capabilities in English.<br>10. Demonstrates engagement in English literacy activities to be able to understand and respond to books, storytelling, and songs presented in English. | 7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts). **(RI.K.7)**<br>8. With prompting and support, identify the reasons an author gives to support points in a text. **(RI.K.8)**<br>9. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). **(RI.K.9)** |

# IELS Alignment with Iowa CORE English Language Arts: Informational Text

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Early Literacy (4.2)*<br>**Standard:**<br>Infants and toddlers engage in early reading experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Explores or shows interest in books by picking them up, mouthing them, carrying them, or flipping through pages.<br>2. Focuses on a book or the reader when hearing stories read to him/her.<br>3. Gazes at or points to pictures in books.<br>4. Responds to or engages in songs, rhyming games, or fingerplays with a familiar adult.<br><br>The toddler also:<br>5. Points to, labels, and/or talks about objects, events, or people within books.<br>6. Enjoys and repeats songs, rhymes, or fingerplays.<br>7. Answers simple questions related to books. | *Early Literacy (11.2)*<br>**Standard:**<br>Children engage in early reading experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses an interest and enjoyment in listening to books and attempts to read familiar books.<br>2. Displays book handling knowledge (e.g., turning the book right side up, using left to right sweep, turning one page at a time, recognizing familiar books by cover).<br>3. Shows an awareness of environmental print such as pointing to familiar words or letters.<br>4. Identifies some alphabet letters by their shapes, especially those in his/her own name.<br>5. Recognizes the printed form of his or her name in a variety of contexts.<br>6. Shows increasing comprehension of a story through retelling the story and/or recognizing story elements such as plot or characters.<br>7. Demonstrates awareness that language is made up of words, parts of words, and sounds in words. | |

# IELS Alignment with Iowa CORE English Language Arts: Informational Text

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Approaches to Learning (Area 2)**<br>**Social and Emotional Development**<br>**(Area 3)**<br>**Communication, Language, and Literacy (Area 4)**<br>**Social Studies (Area 7)** | **Approaches to Learning (Area 9)**<br>**Social and Emotional Development**<br>**(Area 10)**<br>**Communication, Language, and Literacy (Area 11)**<br>**Social Studies (Area 14)** | **Range of Reading and Level of Text Complexity** |
| *Engagement and Persistence (2.2)*<br>**Standard:**<br>Infants and toddlers purposefully choose, engage, and persist in play, experiences, and routines.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Holds attention of familiar adult; for example, through eye contact or vocalizations.<br>2. Repeats familiar and newly learned experiences.<br>3. Actively maintains focus on people or objects of interest, play experiences, or novel events.<br>4. Persists in the face of frustration.<br><br>*Reasoning and Problem Solving (2.3)*<br>**Standard:**<br>Infants and toddlers demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Uses an object, action, or adult to accomplish tasks, such as pulling a string to reach a toy or pushing a button to hear a sound.<br>2. Experiments to find a solution to a problem.<br>3. Imitates an adult action to solve a problem.<br>4. Recognizes difficulties and adjusts actions to correct mistakes.<br>5. Seeks and accepts help when encountering a problem beyond his/her ability to solve independently. | *Engagement and Persistence (9.2)*<br>**Standard:**<br>Children purposefully choose and persist in experiences and play.<br><br>**Benchmarks:**<br>The child:<br>1. Persists in and completes a variety of both adult-directed and child-initiated tasks, projects, and experiences of increasing degrees of difficulty.<br>2. Maintains concentration on a task despite distractions and interruptions.<br>3. Sets goals and follows a plan in order to complete a task.<br>4. Chooses to participate in play and learning experiences.<br><br>*Reasoning and Problem Solving (9.3)*<br>**Standard:**<br>Children demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The child:<br>1. Shows interest in and finds a variety of solutions to questions, tasks, or problems.<br>2. Recognizes and solves problems through active exploration, including trial and error, and through interactions and discussions with peers and adults.<br>3. Shares ideas or makes suggestions of how to solve a problem presented by another person. | 1. Actively engage in group reading activities with purpose and understanding. **(RI.K.1)** |

# IELS Alignment with Iowa CORE English Language Arts: Informational Text

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Self (3.1)*<br>**Standard:**<br>Infants and toddlers display a positive sense of self.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to familiar adults' and children's interactions through using behaviors such as gazing, cuddling, and accepting assistance.<br>2. Explores his/her own body.<br>3. Shows awareness of self, such as responding to own image in mirror.<br>4. Shows preferences for toys and experiences.<br>5. Expresses enjoyment.<br>6. Begins to recognize own power by showing interest in making choices or expressing preferences.<br><br>*Self-Regulation (3.2)*<br>**Standard:**<br>Infants and toddlers show increasing awareness of and ability to express emotions in socially and culturally appropriate ways.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Indicates need for assistance through actions such as crying, gesturing, vocalizing, using words, or approaching familiar adults.<br>2. Comforts him or herself when distressed or tired by actions such as sucking, stroking a blanket, or hugging a toy.<br>3. Responds to emotions expressed by others, for example, by comforting another child or crying in response to the cries of others.<br>4. Shows increasing ability to recognize own feelings, including simple (e.g., mad, glad) and complex (e.g., excited, frustrated, disappointed) feelings. | *Self (10.1)*<br>**Standard:**<br>Children express a positive awareness of self in terms of specific abilities, characteristics, and preferences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses a positive sense of self in terms of specific abilities.<br>2. Expresses needs, wants, opinions, and feelings in socially appropriate ways.<br>3. Demonstrates increasing confidence and independence in a variety of tasks and routines, and expresses pride in accomplishments.<br>4. Recognizes own power to make choices.<br><br>*Self Regulation (10.2)*<br>**Standard:**<br>Children show increasing ability to regulate their behavior and express their emotions in appropriate ways.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates the ability to monitor his/her own behavior and its effects on others, following and contributing to adult expectations.<br>2. Persists with difficult tasks without becoming overly frustrated.<br>3. Begins to accept consequences of his/her own actions.<br>4. Manages transitions and changes to routines.<br>5. States feelings, needs, and opinions in difficult situations without harming self, others, or property.<br>6. Expresses an increasing range and variety of emotions, and transitions between feeling states become smoother. | |

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| 5. Begins to express a range and variety of feelings and emotions through body language, facial expressions, actions, and/or verbal responses.<br>6. Begins to control behavior through following simple rules and limits in a variety of settings.<br>7. Begins to transition between feeling states with guidance from a caring adult.<br><br>*Relationship with Adults (3.3)*<br>**Standard:**<br>Infants and toddlers relate positively with significant adults.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Distinguishes between familiar and unfamiliar adults; for example, is comforted by the sight of the familiar adult or the sound of the familiar adult's voice.<br>2. Accepts assistance and comfort from familiar adults.<br>3. Seeks and maintains contact with familiar adults; for example, by looking at the adult, hearing the adult's voice, or touching the adult.<br>4. Shows discomfort at separations from familiar adults.<br>5. Seeks help from familiar adults in unfamiliar situations.<br>6. Explores the environment, both indoors and outdoors, but may return to a caring adult periodically for security.<br>7. Begins to imitate or portray roles and relationships.<br>8. Imitates adult behaviors. | *Relationships with Adults (10.3)*<br>**Standard:**<br>Children relate positively with significant adults.<br><br>**Benchmarks:**<br>The child:<br>1. Interacts comfortably with familiar adults.<br>2. Accepts guidance, comfort, and directions from a range of familiar adults in a variety of environments.<br>3. Expresses affection toward familiar adults.<br>4. Shows trust in familiar adults.<br>5. Seeks help, as needed, from familiar adults. | |

# IELS Alignment with Iowa CORE English Language Arts: Informational Text

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Relationships with Children (3.4)*<br>**Standard:**<br>Infants and toddlers respond to and initiate interactions with other children.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Initiates interactions with other children through gestures, vocalizations, facial expressions, and/or body movements.<br>2. Accepts help from familiar adults in interactions with other children.<br>3. Begins to demonstrate empathy for others.<br>4. Starts interacting and playing with peers, including showing interest in them or calling them by name.<br>5. Develops an awareness of his/her behavior and how it affects others.<br>6. Imitates other children's behaviors. | *Relationships with Children (10.4)*<br>**Standard:**<br>Children respond to and initiate appropriate interactions with other children, and form positive peer relationships.<br><br>**Benchmarks:**<br>The child:<br>1. Initiates and sustains positive interactions with peers.<br>2. Develops friendships with other peers.<br>3. Negotiates with others to resolve disagreements.<br>4. Starts to demonstrate turn taking and sharing with others.<br>5. Expresses empathy to peers.<br>6. Accepts consequences of his/her actions.<br>7. Recognizes how behaviors can affect others.<br>8. Demonstrates caring behaviors. | |
| *Language Understanding and Use (4.1)*<br>**Standard:**<br>Infants and toddlers understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to the vocalizations and communications, verbal and nonverbal, of familiar adults.<br>2. Uses vocalizations and gestures to gain attention from others.<br>3. Uses vocalizations and gestures to communicate wants and needs.<br>4. Increases both listening (receptive) and speaking (expressive) vocabulary.<br><br>The toddler also:<br>5. Progresses to using words then simple sentences to communicate.<br>6. Participates in conversations, using both receptive (listening) and expressive (speaking) language skills.<br>7. Answers simple questions.<br>8. Follows simple directions. | *Language Understanding and Use (11.1)*<br>**Standard:**<br>Children understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates a steady increase in listening (receptive language) and speaking (expressive language) vocabulary.<br>2. Initiates, listens, and responds in relationship to the topics of conversations with peers and adults.<br>3. Speaks in phrases and sentences of increasing length and complexity.<br>4. Follows oral directions that involve several actions.<br>5. Asks and answers a variety of questions.<br>6. Demonstrates knowledge of the rules of conversations such as taking turns while speaking. | |

# IELS Alignment with Iowa CORE English Language Arts: Informational Text

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| | The child, who is an English language learner, also:<br>7. Uses their home language to communicate with people who speak the same home language.<br>8. Demonstrates receptive (listening) English language skills to be able to comprehend the English language.<br>9. Demonstrates expressive (speaking) English language skills to build speaking capabilities in English.<br>10. Demonstrates engagement in English literacy activities to be able to understand and respond to books, storytelling, and songs presented in English. | |
| *Early Literacy (4.2)*<br>**Standard:**<br>Infants and toddlers engage in early reading experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Explores or shows interest in books by picking them up, mouthing them, carrying them, or flipping through pages.<br>2. Focuses on a book or the reader when hearing stories read to him/her.<br>3. Gazes at or points to pictures in books.<br>4. Responds to or engages in songs, rhyming games, or fingerplays with a familiar adult.<br><br>The toddler also:<br>5. Points to, labels, and/or talks about objects, events, or people within books.<br>6. Enjoys and repeats songs, rhymes, or fingerplays.<br>7. Answers simple questions related to books. | *Early Literacy (11.2)*<br>**Standard:**<br>Children engage in early reading experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses an interest and enjoyment in listening to books and attempts to read familiar books.<br>2. Displays book handling knowledge (e.g., turning the book right side up, using left to right sweep, turning one page at a time, recognizing familiar books by cover).<br>3. Shows an awareness of environmental print such as pointing to familiar words or letters.<br>4. Identifies some alphabet letters by their shapes, especially those in his/her own name.<br>5. Recognizes the printed form of his or her name in a variety of contexts.<br>6. Shows increasing comprehension of a story through retelling the story and/or recognizing story elements such as plot or characters.<br>7. Demonstrates awareness that language is made up of words, parts of words, and sounds in words. | |

# IELS Alignment with Iowa CORE English Language Arts: Informational Text

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Awareness of Family and Community (7.1)*<br>**Standard:**<br>Infants and toddlers demonstrate a sense of belonging within their family, program, and other social settings or groups.<br><br>**Benchmarks:**<br>The infant and toddler:<br>1. Expresses enjoyment at being in a familiar setting or group.<br>2. Recognizes familiar adults and uses them to determine safety during exploration.<br>3. Freely explores and plays within familiar settings. | *Awareness of Family and Community (14.1)*<br>**Standard:**<br>Children demonstrate an increasing awareness of belonging to a family and community.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates understanding that communities are composed of groups of people who live, play, or work together.<br>2. Demonstrates ability to identify communities to which they belong, recognizing that their family is an important group to which they belong.<br>3. Demonstrates responsibility as a member of a family or community.<br>4. Shows confidence in expressing individual opinions and thoughts while respecting the thoughts and opinions of others.<br>5. Participates in creating and following rules and routines.<br>6. Demonstrates an initial awareness of the concepts of fairness, individual rights, and welfare of family and community members. | |
| *Exploration of the Environment (7.3)*<br>**Standard:**<br>Infants and toddlers explore new environments with interest and recognize familiar places.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Demonstrates interest and curiosity within familiar and unfamiliar settings.<br>2. Explores and plays with new, as well as familiar objects, in the environment using all five senses. | *Awareness of Past (14.4)*<br>**Standard:**<br>Children demonstrate an increasing awareness of past events and how those events relate to one's self, family, and community.<br><br>**Benchmarks:**<br>The child:<br>1. Differentiates between past, present, and future.<br>2. Represents events and experiences that occurred in the past through words, play, and art.<br>3. Uses past events to construct meaning of the world.<br>4. Understands that events happened in the past and that the events relate to oneself, family, community, and culture. | |

# IELS Alignment with Iowa CORE English Language Arts: Foundational Skills

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Communication, Language, and Literacy (Area 4)** | **Communication, Language, and Literacy (Area 11)** | **Print Concepts**<br>**Phonological Awareness**<br>**Phonics and Word Recognition**<br>**Fluency** |
| *Language Understanding and Use (4.1)*<br>**Standard:**<br>Infants and toddlers understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to the vocalizations and communications, verbal and nonverbal, of familiar adults.<br>2. Uses vocalizations and gestures to gain attention from others.<br>3. Uses vocalizations and gestures to communicate wants and needs.<br>4. Increases both listening (receptive) and speaking (expressive) vocabulary.<br><br>The toddler also:<br>5. Progresses to using words then simple sentences to communicate.<br>6. Participates in conversations, using both receptive (listening) and expressive (speaking) language skills.<br>7. Answers simple questions.<br>8. Follows simple directions. | *Language Understanding and Use (11.1)*<br>**Standard:**<br>Children understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates a steady increase in listening (receptive language) and speaking (expressive language) vocabulary.<br>2. Initiates, listens, and responds in relationship to the topics of conversations with peers and adults.<br>3. Speaks in phrases and sentences of increasing length and complexity.<br>4. Follows oral directions that involve several actions.<br>5. Asks and answers a variety of questions.<br>6. Demonstrates knowledge of the rules of conversations such as taking turns while speaking.<br><br>The child, who is an English language learner, also:<br>7. Uses their home language to communicate with people who speak the same home language.<br>8. Demonstrates receptive (listening) English language skills to be able to comprehend the English language.<br>9. Demonstrates expressive (speaking) English language skills to build speaking capabilities in English.<br>10. Demonstrates engagement in English literacy activities to be able to understand and respond to books, storytelling, and songs presented in English. | 1. Demonstrate understanding of the organization and basic features of print.<br>a. Follow words from left to right, top to bottom, and page by page.<br>b. Recognize that spoken words are represented in written language by specific sequences of letters.<br>c. Understand that words are separated by spaces in print.<br>d. Recognize and name all upper- and lowercase letters of the alphabet. **(RF.K.1)**<br>2. Demonstrate understanding of spoken words, syllables, and sounds phonemes.<br>a. Recognize and produce rhyming words.<br>b. Count, pronounce, blend, and segment syllables in spoken words.<br>c. Blend and segment onsets and rimes of single-syllable spoken words.<br>d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words. (This does not include CVCs ending with /l/, /r/, or /x/).<br>e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words. **(RF.K.2)**<br>3. Know and apply grade-level phonics and word analysis skills in decoding words.<br>a. Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sound for each consonant. |

# IELS Alignment with Iowa CORE English Language Arts: Foundational Skills

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Early Literacy (4.2)*<br>**Standard:**<br>Infants and toddlers engage in early reading experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Explores or shows interest in books by picking them up, mouthing them, carrying them, or flipping through pages.<br>2. Focuses on a book or the reader when hearing stories read to him/her.<br>3. Gazes at or points to pictures in books.<br>4. Responds to or engages in songs, rhyming games, or fingerplays with a familiar adult.<br><br>The toddler also:<br>5. Points to, labels, and/or talks about objects, events, or people within books.<br>6. Enjoys and repeats songs, rhymes, or fingerplays.<br>7. Answers simple questions related to books. | *Early Literacy (11.2)*<br>**Standard:**<br>Children engage in early reading experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses an interest and enjoyment in listening to books and attempts to read familiar books.<br>2. Displays book handling knowledge (e.g., turning the book right side up, using left to right sweep, turning one page at a time, recognizing familiar books by cover).<br>3. Shows an awareness of environmental print such as pointing to familiar words or letters.<br>4. Identifies some alphabet letters by their shapes, especially those in his/her own name.<br>5. Recognizes the printed form of his or her name in a variety of contexts.<br>6. Shows increasing comprehension of a story through retelling the story and/or recognizing story elements such as plot or characters.<br>7. Demonstrates awareness that language is made up of words, parts of words, and sounds in words. | b. Associate the long and short sounds with common spellings (graphemes) for the five major vowels.<br>c. Read common high-frequency words by sight (e.g., *the, of, to, you, she, my, is, are, do, does*).<br>d. Distinguish between similarly spelled words by identifying the sounds that differ. **(RF.K.3)**<br>4. Read emergent-reader texts with purpose and understanding. **(RF.K.4)** |
| *Early Writing (4.3)*<br>**Standard:**<br>Infants and toddlers engage in early writing experiences.<br><br>**Benchmarks:**<br>The infant:<br>1. Grasps and/or manipulates a variety of objects in his/her environment.<br><br>The older infant and toddler also:<br>2. Scribbles spontaneously, usually using a fist grip.<br>3. Shows increasing skill in manipulating objects such as stacking several items, using pegboards, and mastering the use of eating utensils. | *Early Writing (11.3)*<br>**Standard:**<br>Children engage in early writing experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Attempts to communicate with others using scribbles, shapes, pictures, and/or letters in writing.<br>2. Experiments with a variety of writing tools such as pencils, crayons, brushes, and chalk.<br>3. Uses expressive (speaking) language to share intended meaning of drawings and writing.<br>4. Starts to demonstrate interest in learning to write letters, especially the letters in his/her name. | |

# IELS Alignment with Iowa CORE English Language Arts: Writing

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Physical Well-Being and Motor Development (Area 1)**<br>**Communication, Language, and Literacy (Area 4)** | **Physical Well-Being and Motor Development (Area 8)**<br>**Communication, Language, and Literacy (Area 11)** | **Text Types and Purposes**<br>**Production and Distribution of Writing**<br>**Research to Build and Present Knowledge**<br>**Range in Writing** |
| *Small Motor Development (1.3)*<br>**Standard:**<br>Infants and toddlers develop small motor skills.<br><br>**Benchmarks:**<br>The infant:<br>1. Uses hand-eye coordination to perform self-help and small motor tasks, such as eating food, picking up objects, placing objects on a surface, and transferring objects from hand to hand.<br><br>The toddler:<br>2. Uses hand-eye coordination to perform self-help and small motor tasks such as eating with a fork or spoon, completing simple puzzles, stacking blocks, dressing self with assistance, scribbling with crayons or markers, and participating in fingerplays.<br><br>*Language Understanding and Use (4.1)*<br>**Standard:**<br>Infants and toddlers understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to the vocalizations and communications, verbal and nonverbal, of familiar adults.<br>2. Uses vocalizations and gestures to gain attention from others.<br>3. Uses vocalizations and gestures to communicate wants and needs.<br>4. Increases both listening (receptive) and speaking (expressive) vocabulary. | *Small Motor Development (8.3)*<br>**Standard:**<br>Children develop small motor skills.<br><br>**Benchmarks:**<br>The child:<br>1. Uses hand-eye coordination to perform self-help and small motor tasks with a variety of manipulative materials such as beads, pegs, shoelaces, and puzzle pieces.<br>2. Demonstrates increased skills in using scissors and writing tools for various learning experiences.<br><br>*Language Understanding and Use (11.1)*<br>**Standard:**<br>Children understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates a steady increase in listening (receptive language) and speaking (expressive language) vocabulary.<br>2. Initiates, listens, and responds in relationship to the topics of conversations with peers and adults.<br>3. Speaks in phrases and sentences of increasing length and complexity.<br>4. Follows oral directions that involve several actions. | 1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., *My favorite book is…).* **(W.K.1)**<br>2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. **(W.K.2)**<br>3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. **(W.K.3)**<br>4. (Begins in grade 3) **(W.K.4)**<br>5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. **(W.K.5)**<br>6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaborations with peers. **(W.K.6)**<br>7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). **(W.K.7)**<br>8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. **(W.K.8)**<br>9. (Begins in grade 4) **(W.K.9)**<br>10. (Begins in grade 3) **(W.K.10)** |

# IELS Alignment with Iowa CORE English Language Arts: Writing

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| The toddler also:<br>5. Progresses to using words then simple sentences to communicate.<br>6. Participates in conversations, using both receptive (listening) and expressive (speaking) language skills.<br>7. Answers simple questions.<br>8. Follows simple directions. | 5. Asks and answers a variety of questions.<br>6. Demonstrates knowledge of the rules of conversations such as taking turns while speaking.<br><br>The child, who is an English language learner, also:<br>7. Uses their home language to communicate with people who speak the same home language.<br>8. Demonstrates receptive (listening) English language skills to be able to comprehend the English language.<br>9. Demonstrates expressive (speaking) English language skills to build speaking capabilities in English.<br>10. Demonstrates engagement in English literacy activities to be able to understand and respond to books, storytelling, and songs presented in English. | |
| *Early Literacy (4.2)*<br>**Standard:**<br>Infants and toddlers engage in early reading experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Explores or shows interest in books by picking them up, mouthing them, carrying them, or flipping through pages.<br>2. Focuses on a book or the reader when hearing stories read to him/her.<br>3. Gazes at or points to pictures in books.<br>4. Responds to or engages in songs, rhyming games, or fingerplays with a familiar adult.<br><br>The toddler also:<br>5. Points to, labels, and/or talks about objects, events, or people within books.<br>6. Enjoys and repeats songs, rhymes, or fingerplays.<br>7. Answers simple questions related to books. | *Early Literacy (11.2)*<br>**Standard:**<br>Children engage in early reading experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses an interest and enjoyment in listening to books and attempts to read familiar books.<br>2. Displays book handling knowledge (e.g., turning the book right side up, using left to right sweep, turning one page at a time, recognizing familiar books by cover).<br>3. Shows an awareness of environmental print such as pointing to familiar words or letters.<br>4. Identifies some alphabet letters by their shapes, especially those in his/her own name.<br>5. Recognizes the printed form of his or her name in a variety of contexts.<br>6. Shows increasing comprehension of a story through retelling the story and/or recognizing story elements such as plot or characters. | |

# IELS Alignment with Iowa CORE English Language Arts: Writing

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| | 7. Demonstrates awareness that language is made up of words, parts of words, and sounds in words. | |
| *Early Writing (4.3)*<br>**Standard:**<br>Infants and toddlers engage in early writing experiences.<br><br>**Benchmarks:**<br>The infant:<br>1. Grasps and/or manipulates a variety of objects in his/her environment.<br><br>The older infant and toddler also:<br>2. Scribbles spontaneously, usually using a fist grip.<br>3. Shows increasing skill in manipulating objects such as stacking several items, using pegboards, and mastering the use of eating utensils. | *Early Writing (11.3)*<br>**Standard:**<br>Children engage in early writing experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Attempts to communicate with others using scribbles, shapes, pictures, and/or letters in writing.<br>2. Experiments with a variety of writing tools such as pencils, crayons, brushes, and chalk.<br>3. Uses expressive (speaking) language to share intended meaning of drawings and writing.<br>4. Starts to demonstrate interest in learning to write letters, especially the letters in his/her name. | |

# IELS Alignment with Iowa CORE English Language Arts: Language

| Infant/Toddler: Birth – 3 Years | Preschool: 3 – 5 Years | Kindergarten: |
|---|---|---|
| **Communication, Language, and Literacy (Area 4)** | **Communication, Language, and Literacy (Area 11)** | **Conventions of Standard English Knowledge of Language Vocabulary Acquisition and Use** |
| *Language Understanding and Use (4.1)*<br>**Standard:**<br>Infants and toddlers understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to the vocalizations and communications, verbal and nonverbal, of familiar adults.<br>2. Uses vocalizations and gestures to gain attention from others.<br>3. Uses vocalizations and gestures to communicate wants and needs.<br>4. Increases both listening (receptive) and speaking (expressive) vocabulary.<br><br>The toddler also:<br>5. Progresses to using words then simple sentences to communicate.<br>6. Participates in conversations, using both receptive (listening) and expressive (speaking) language skills.<br>7. Answers simple questions.<br>8. Follows simple directions. | *Language Understanding and Use (11.1)*<br>**Standard:**<br>Children understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates a steady increase in listening (receptive language) and speaking (expressive language) vocabulary.<br>2. Initiates, listens, and responds in relationship to the topics of conversations with peers and adults.<br>3. Speaks in phrases and sentences of increasing length and complexity.<br>4. Follows oral directions that involve several actions.<br>5. Asks and answers a variety of questions.<br>6. Demonstrates knowledge of the rules of conversations such as taking turns while speaking.<br><br>The child, who is an English language learner, also:<br>7. Uses their home language to communicate with people who speak the same home language.<br>8. Demonstrates receptive (listening) English language skills to be able to comprehend the English language.<br>9. Demonstrates expressive (speaking) English language skills to build speaking capabilities in English.<br>10. Demonstrates engagement in English literacy activities to be able to understand and respond to books, storytelling, and songs presented in English. | 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.<br>a. Print many upper- and lowercase letters.<br>b. Use frequently occurring nouns and verbs.<br>c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., dog, dogs; wish, whishes).<br>d. Understand and use question words (interrogatives) (e.g., *who, what, where, when, why, how*).<br>e. Use the most frequently occurring prepositions (e.g., *to, from, in, out, on, off, for, of, by, with*).<br>f. Produce and expand complete sentences in shared language activities. **(L.K.1)**<br>2. Demonstrate command of conventions of standard English capitalization, punctuation, and spelling when writing.<br>a. Capitalize the first word in a sentence and the pronoun I.<br>b. Recognize and name end punctuation.<br>c. Write a letter or letters for most consonant and short-vowel sounds (phonemes).<br>d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships. **(L.K.2)**<br>3. (Begins in grade 2) **(L.K.3)**<br>4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *kindergarten reading and content.*<br>a. Identify new meanings for familiar words and apply them accurately (e.g., knowing *duck* is a bird and learning the verb to *duck*). |

# IELS Alignment with Iowa CORE English Language Arts: Language

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Early Literacy (4.2)*<br>**Standard:**<br>Infants and toddlers engage in early reading experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Explores or shows interest in books by picking them up, mouthing them, carrying them, or flipping through pages.<br>2. Focuses on a book or the reader when hearing stories read to him/her.<br>3. Gazes at or points to pictures in books.<br>4. Responds to or engages in songs, rhyming games, or fingerplays with a familiar adult.<br><br>The toddler also:<br>5. Points to, labels, and/or talks about objects, events, or people within books.<br>6. Enjoys and repeats songs, rhymes, or fingerplays.<br>7. Answers simple questions related to books. | *Early Literacy (11.2)*<br>**Standard:**<br>Children engage in early reading experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses an interest and enjoyment in listening to books and attempts to read familiar books.<br>2. Displays book handling knowledge (e.g., turning the book right side up, using left to right sweep, turning one page at a time, recognizing familiar books by cover).<br>3. Shows an awareness of environmental print such as pointing to familiar words or letters.<br>4. Identifies some alphabet letters by their shapes, especially those in his/her own name.<br>5. Recognizes the printed form of his or her name in a variety of contexts.<br>6. Shows increasing comprehension of a story through retelling the story and/or recognizing story elements such as plot or characters.<br>7. Demonstrates awareness that language is made up of words, parts of words, and sounds in words. | b. Use the most frequently occurring inflections and affixes (e.g., *-ed, -s, re-, un-, pre-, -ful, -less*) as a clue to the meaning of an unknown word. **(L.K.4)**<br>5. With guidance and support from adults, explore word relationships and nuances in word meanings.<br>a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.<br>b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).<br>c. Identify real-life connections between words and their use (e.g., note places at school that are *colorful*).<br>d. Distinguish shades of meaning among verbs describing the same general action (e.g., *walk, march, strut, prance*) by acting out the meanings. **(L.K.5)**<br>6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. **(L.K.6)** |
| *Early Writing (4.3)*<br>**Standard:**<br>Infants and toddlers engage in early writing experiences.<br><br>**Benchmarks:**<br>The infant:<br>1. Grasps and/or manipulates a variety of objects in his/her environment.<br><br>The older infant and toddler also:<br>2. Scribbles spontaneously, usually using a fist grip. | *Early Writing (11.3)*<br>**Standard:**<br>Children engage in early writing experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Attempts to communicate with others using scribbles, shapes, pictures, and/or letters in writing.<br>2. Experiments with a variety of writing tools such as pencils, crayons, brushes, and chalk.<br>3. Uses expressive (speaking) language to share intended meaning of drawings and writing. | |

## IELS Alignment with Iowa CORE English Language Arts: Language

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| 3. Shows increasing skill in manipulating objects such as stacking several items, using pegboards, and mastering the use of eating utensils. | 4. Starts to demonstrate interest in learning to write letters, especially the letters in his/her name. | |

# IELS Alignment with Iowa CORE English Language Arts: Speaking and Listening

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Approaches to Learning (Area 2)**<br>**Social and Emotional Development (Area 3)**<br>**Communication, Language, and Literacy (Area 4)**<br>**Creative Arts (Area 6)**<br>**Social Studies (Area 7)** | **Approaches to Learning ( Area 9)**<br>**Social and Emotional Development (Area 10)**<br>**Communication, Language, and Literacy (Area 11)**<br>**Creative Arts (Area 13)**<br>**Social Studies (Area 14)** | **Comprehension and Collaboration**<br>**Presentation of Knowledge and Ideas** |
| *Engagement and Persistence (2.2)*<br>**Standard:**<br>Infants and toddlers purposefully choose, engage, and persist in play, experiences, and routines.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Holds attention of familiar adult; for example, through eye contact or vocalizations.<br>2. Repeats familiar and newly learned experiences.<br>3. Actively maintains focus on people or objects of interest, play experiences, or novel events.<br>4. Persists in the face of frustration.<br><br>*Reasoning and Problem Solving (2.3)*<br>**Standard:**<br>Infants and toddlers demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Uses an object, action, or adult to accomplish tasks, such as pulling a string to reach a toy or pushing a button to hear a sound.<br>2. Experiments to find a solution to a problem.<br>3. Imitates an adult action to solve a problem.<br>4. Recognizes difficulties and adjusts actions to correct mistakes.<br>5. Seeks and accepts help when encountering a problem beyond his/her ability to solve independently. | *Engagement and Persistence (9.2)*<br>**Standard:**<br>Children purposefully choose and persist in experiences and play.<br><br>**Benchmarks:**<br>The child:<br>1. Persists in and completes a variety of both adult-directed and child-initiated tasks, projects, and experiences of increasing degrees of difficulty.<br>2. Maintains concentration on a task despite distractions and interruptions.<br>3. Sets goals and follows a plan in order to complete a task.<br>4. Chooses to participate in play and learning experiences.<br><br>*Reasoning and Problem Solving (9.3)*<br>**Standard:**<br>Children demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The child:<br>1. Shows interest in and finds a variety of solutions to questions, tasks, or problems.<br>2. Recognizes and solves problems through active exploration, including trial and error, and through interactions and discussions with peers and adults.<br>3. Shares ideas or makes suggestions of how to solve a problem presented by another person. | 1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and large groups.<br>a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).<br>b. Continue a conversation through multiple exchanges. **(SL.K.1)**<br>2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. **(SL.K.2)**<br>3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. **(SL.K.3)**<br>4. Describe familiar people, places, things, and events and, with prompting and support, provide attention to detail. **(SL.K.4)**<br>5. Add drawings or other visual displays to descriptions as desired to provide additional detail. **(SL.K.5)**<br>6. Speak audibly and express thoughts, feelings, and ideas clearly. **(SL.K.6)**<br><br>IA.3. Recite familiar stories, poems, nursery rhymes, and lines of play. |

# IELS Alignment with Iowa CORE English Language Arts: Speaking and Listening

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Play and Senses (2.4)*<br>**Standard:**<br>Infants and toddlers engage in play to learn.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Uses sights, smells, sounds, textures, and tastes to explore and experience routines and materials within the environment.<br>2. Chooses and participates in a variety of play experiences.<br>3. Imitates behaviors in play.<br>4. Repeats experiences with materials, adults, and peers to build knowledge and understanding of the world around them. | *Play and Senses (9.4)*<br>**Standard:**<br>Children engage in play to learn.<br><br>**Benchmarks:**<br>The child:<br>1. Participates in a variety of indoor and outdoor play experiences that increase strength, endurance, and flexibility.<br>2. Uses sights, smells, sounds, textures, and tastes to discriminate between and explore experiences, materials, and the environment.<br>3. Engages in child-initiated, unstructured play.<br>4. Plans and executes play experiences alone and with peers. | |
| *Self (3.1)*<br>**Standard:**<br>Infants and toddlers display a positive sense of self.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to familiar adults' and children's interactions through using behaviors such as gazing, cuddling, and accepting assistance.<br>2. Explores his/her own body.<br>3. Shows awareness of self, such as responding to own image in mirror.<br>4. Shows preferences for toys and experiences.<br>5. Expresses enjoyment.<br>6. Begins to recognize own power by showing interest in making choices or expressing preferences. | *Self (10.1)*<br>**Standard:**<br>Children express a positive awareness of self in terms of specific abilities, characteristics, and preferences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses a positive sense of self in terms of specific abilities.<br>2. Expresses needs, wants, opinions, and feelings in socially appropriate ways.<br>3. Demonstrates increasing confidence and independence in a variety of tasks and routines, and expresses pride in accomplishments.<br>4. Recognizes own power to make choices. | |

# IELS Alignment with Iowa CORE English Language Arts: Speaking and Listening

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Self-Regulation (3.2)*<br>**Standard:**<br>Infants and toddlers show increasing awareness of and ability to express emotions in socially and culturally appropriate ways.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Indicates need for assistance through actions such as crying, gesturing, vocalizing, using words, or approaching familiar adults.<br>2. Comforts him or herself when distressed or tired by actions such as sucking, stroking a blanket, or hugging a toy.<br>3. Responds to emotions expressed by others, for example, by comforting another child or crying in response to the cries of others.<br>4. Shows increasing ability to recognize own feelings, including simple (i.e., mad, glad) and complex (i.e., excited, frustrated, disappointed) feelings.<br>5. Begins to express a range and variety of feelings and emotions through body language, facial expressions, actions, and/or verbal responses.<br>6. Begins to control behavior through following simple rules and limits in a variety of settings.<br>7. Begins to transition between feeling states with guidance from a caring adult. | *Self Regulation (10.2)*<br>**Standard:**<br>Children show increasing ability to regulate their behavior and express their emotions in appropriate ways.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates the ability to monitor his/her own behavior and its effects on others, following and contributing to adult expectations.<br>2. Persists with difficult tasks without becoming overly frustrated.<br>3. Begins to accept consequences of his/her own actions.<br>4. Manages transitions and changes to routines.<br>5. States feelings, needs, and opinions in difficult situations without harming self, others, or property.<br>6. Expresses an increasing range and variety of emotions, and transitions between feeling states become smoother. | |
| *Relationships with Adults (3.3)*<br>**Standard:**<br>Infants and toddlers relate positively with significant adults.<br>**Benchmarks:**<br>The infant or toddler:<br>1. Distinguishes between familiar and unfamiliar adults; for example, is comforted by the sight of the familiar adult or the sound of the familiar adult's voice.<br>2. Accepts assistance and comfort from familiar adults. | *Relationships with Adults (10.3)*<br>**Standard:**<br>Children relate positively with significant adults.<br>**Benchmarks:**<br>The child:<br>1. Interacts comfortably with familiar adults.<br>2. Accepts guidance, comfort, and directions from a range of familiar adults in a variety of environments.<br>3. Expresses affection toward familiar adults. | |

# IELS Alignment with Iowa CORE English Language Arts: Speaking and Listening

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| 3. Seeks and maintains contact with familiar adults; for example, by looking at the adult, hearing the adult's voice, or touching the adult.<br>4. Shows discomfort at separation from familiar adults.<br>5. Seeks help from familiar adults in unfamiliar situations.<br>6. Explores the environment, both indoors and outdoors, but may return to a caring adult periodically for security.<br>7. Begins to imitate or portray roles and relationships.<br>8. Imitates adult behaviors. | 4. Shows trust in familiar adults.<br>5. Seeks help, as needed, from familiar adults. | |
| *Relationships with Children (3.4)*<br>**Standard:**<br>Infants and toddlers respond to and initiate interactions with other children. | *Relationships with Children (10.4)*<br>**Standard:**<br>Children respond to and initiate appropriate interactions with other children, and form positive peer relationships. | |
| **Benchmarks:**<br>The infant or toddler:<br>1. Initiates interactions with other children through gestures, vocalizations, facial expressions, and/or body movements.<br>2. Accepts help from familiar adults in interactions with other children.<br>3. Begins to demonstrate empathy for others.<br>4. Starts interacting and playing with peers, including showing interest in them or calling them by name.<br>5. Develops an awareness of his/her behavior and how it affects others.<br>6. Imitates other children's behaviors. | **Benchmarks:**<br>The child:<br>1. Initiates and sustains positive interactions with peers.<br>2. Develops friendships with other peers.<br>3. Negotiates with others to resolve disagreements.<br>4. Starts to demonstrate turn taking and sharing with others.<br>5. Expresses empathy to peers.<br>6. Accepts consequences of his/her actions.<br>7. Recognizes how behaviors can affect others.<br>8. Demonstrates caring behaviors. | |

# IELS Alignment with Iowa CORE English Language Arts: Speaking and Listening

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Language Understanding and Use (4.1)*<br>**Standard:**<br>Infants and toddlers understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Responds to the vocalizations and communications, verbal and nonverbal, of familiar adults.<br>2. Uses vocalizations and gestures to gain attention from others.<br>3. Uses vocalizations and gestures to communicate wants and needs.<br>4. Increases both listening (receptive) and speaking (expressive) vocabulary.<br><br>The toddler also:<br>5. Progresses to using words then simple sentences to communicate.<br>6. Participates in conversations, using both receptive (listening) and expressive (speaking) language skills.<br>7. Answers simple questions.<br>8. Follows simple directions. | *Language Understanding and Use (11.1)*<br>**Standard:**<br>Children understand and use communication and language for a variety of purposes.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates a steady increase in listening (receptive language) and speaking (expressive language) vocabulary.<br>2. Initiates, listens, and responds in relationship to the topics of conversations with peers and adults.<br>3. Speaks in phrases and sentences of increasing length and complexity.<br>4. Follows oral directions that involve several actions.<br>5. Asks and answers a variety of questions.<br>6. Demonstrates knowledge of the rules of conversations such as taking turns while speaking.<br><br>The child, who is an English language learner, also:<br>7. Uses their home language to communicate with people who speak the same home language.<br>8. Demonstrates receptive (listening) English language skills to be able to comprehend the English language.<br>9. Demonstrates expressive (speaking) English language skills to build speaking capabilities in English.<br>10. Demonstrates engagement in English literacy activities to be able to understand and respond to books, storytelling, and songs presented in English. | |

# IELS Alignment with Iowa CORE English Language Arts: Speaking and Listening

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Early Literacy (4.2)*<br>**Standard:**<br>Infants and toddlers engage in early reading experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Explores or shows interest in books by picking them up, mouthing them, carrying them, or flipping through pages.<br>2. Focuses on a book or the reader when hearing stories read to him/her.<br>3. Gazes at or points to pictures in books.<br>4. Responds to or engages in songs, rhyming games, or fingerplays with a familiar adult.<br><br>The toddler also:<br>5. Points to, labels, and/or talks about objects, events, or people within books.<br>6. Enjoys and repeats songs, rhymes, or fingerplays.<br>7. Answers simple questions related to books. | *Early Literacy (11.2)*<br>**Standard:**<br>Children engage in early reading experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Expresses an interest and enjoyment in listening to books and attempts to read familiar books.<br>2. Displays book handling knowledge (e.g., turning the book right side up, using left to right sweep, turning one page at a time, recognizing familiar books by cover).<br>3. Shows an awareness of environmental print such as pointing to familiar words or letters.<br>4. Identifies some alphabet letters by their shapes, especially those in his/her own name.<br>5. Recognizes the printed form of his or her name in a variety of contexts.<br>6. Shows increasing comprehension of a story through retelling the story and/or recognizing story elements such as plot or characters.<br>7. Demonstrates awareness that language is made up of words, parts of words, and sounds in words. | |
| *Early Writing (4.3)*<br>**Standard:**<br>Infants and toddlers engage in early writing experiences.<br><br>**Benchmarks:**<br>The infant:<br>1. Grasps and/or manipulates a variety of objects in his/her environment.<br><br>The older infant and toddler also:<br>2. Scribbles spontaneously, usually using a fist grip. | *Early Writing (11.3)*<br>**Standard:**<br>Children engage in early writing experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Attempts to communicate with others using scribbles, shapes, pictures, and/or letters in writing.<br>2. Experiments with a variety of writing tools such as pencils, crayons, brushes, and chalk.<br>3. Uses expressive (speaking) language to share intended meaning of drawings and writing. | |

| Infant/Toddler: Birth – 3 Years | Preschool: 3 – 5 Years | Kindergarten: |
|---|---|---|
| 3. Shows increasing skill in manipulating objects such as stacking several items, using pegboards, and mastering the use of eating utensils.<br><br>*Art (6.1)*<br>**Standard:**<br>Infants and toddlers participate in a variety of sensory and art-related experiences.<br><br>**Benchmarks:**<br>The infant:<br>1. Gazes at a picture, photo, or mirror images.<br>2. Manipulates and explores play materials within the environment.<br><br>The older infant and toddler also:<br>3. Expresses interest in art-related experiences and media.<br>4. Engages in experiences that support creative expression.<br>5. Chooses and experiments with a variety of art materials such as playdough, crayons, chalk, water, markers, and paint.<br><br>*Music, Rhythm, and Movement (6.2)*<br>**Standard:**<br>Infants and toddlers participate in a variety of rhythm, music, and movement experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Shows interest in songs, tones, rhythms, voices, and music.<br>2. Experiments with a variety of sound-making objects.<br>3. Enjoys exploring ways of interacting with others through touch and motion.<br><br>The toddler also:<br>4. Chooses and participates in music and movement experiences.<br>5. Sings simple songs and participates in fingerplays. | 4. Starts to demonstrate interest in learning to write letters, especially the letters in his/her name.<br><br>*Art (13.1)*<br>**Standard:**<br>Children participate in a variety of art and sensory-related experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Uses a variety of drawing and art materials, such as drawing utensils, paint, clay, and wood to create original works, form, and meaning.<br>2. Expresses ideas about his/her own artwork and the artwork of others, relating artwork to what is happening in the environment or life experiences.<br>3. Demonstrates care and persistence when involved in art projects.<br>4. Plans and works cooperatively to create drawings, paintings, sculptures, and other art projects.<br><br>*Music, Rhythm, and Movement (13.2)*<br>**Standard:**<br>Children participate in a variety of music and movement experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Participates in a variety of musical and rhythmic experiences, including singing, dancing, listening, playing simple rhythmic and tonal instruments, and creating and singing chants, rhymes, and fingerplays from diverse cultures.<br>2. Demonstrates meaningful creative responses when listening to music to reflect the expressive elements of music.<br>3. Notices differences in pitch, rhythm, patterns, dynamics, tempo, and timbre. | |

| Infant/Toddler: Birth – 3 Years | Preschool: 3 – 5 Years | Kindergarten: |
|---|---|---|
| | 4. Demonstrates an awareness of music as part of daily life indoors and outdoors. | |
| *Dramatic Play (6.3)*<br>**Standard:**<br>Infants and toddlers engage in dramatic play experiences.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Imitates the sounds, facial expressions, gestures, or behaviors of another person.<br>2. Imitates the actions and sounds of animals, people, and objects.<br><br>The toddler also:<br>3. Engages in dramatic play in both indoor and outdoor environments. | *Dramatic Play (13.3)*<br>**Standard:**<br>Children engage in dramatic play experiences.<br><br>**Benchmarks:**<br>The child:<br>1. Shows creativity and imagination when using materials.<br>2. Assumes different roles in dramatic play situations.<br>3. Interacts with peers in dramatic play experiences that become more extended and complex. | |
| *Awareness of Family and Community (7.1)*<br>**Standard:**<br>Infants and toddlers demonstrate a sense of belonging within their family, program, and other social settings or groups.<br><br>**Benchmarks:**<br>The infant and toddler:<br>1. Expresses enjoyment at being in a familiar setting or group.<br>2. Recognizes familiar adults and uses them to determine safety during exploration.<br>3. Freely explores and plays within familiar settings. | *Awareness of Family and Community (14.1)*<br>**Standard:**<br>Children demonstrate an increasing awareness of belonging to a family and community.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates understanding that communities are composed of groups of people who live, play, or work together.<br>2. Demonstrates ability to identify communities to which they belong, recognizing that their family is an important group to which they belong.<br>3. Demonstrates responsibility as a member of a family or community.<br>4. Shows confidence in expressing individual opinions and thoughts while respecting the thoughts and opinions of others.<br>5. Participates in creating and following rules and routines.<br>6. Demonstrates an initial awareness of the concepts of fairness, individual rights, and welfare of family and community members. | |

# IELS Alignment with Iowa CORE English Language Arts: Speaking and Listening

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Awareness of Culture (7.2)*<br>**Standard:**<br>Infants and toddlers demonstrate a strong sense of self within their culture.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Expresses enjoyment at being in a familiar setting or group.<br>2. Chooses and participates in familiar experiences, including songs and stories from his or her home culture. | *Awareness of Culture (14.2)*<br>**Standard:**<br>Children demonstrate an increasing awareness of culture and diversity.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates an awareness of diversity such as family characteristics, adult roles within a family, and skin and hair color.<br>2. Demonstrates acceptance of persons from different cultures and ethnic groups.<br>3. Demonstrates a sense of belonging, feeling pride in his/her own culture while showing respect for others.<br>4. Uses respectful and descriptive language for human similarities and differences, demonstrating curiosity, comfort, ease, and empathy with similarities and differences. | |
| *Exploration of the Environment (7.3)*<br>**Standard:**<br>Infants and toddlers explore new environments with interest and recognize familiar places.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Demonstrates interest and curiosity within familiar and unfamiliar settings.<br>2. Explores and plays with new, as well as familiar objects, in the environment using all five senses. | *Awareness of the Relationship between People and the Environment in which They Live (14.3)*<br>**Standard:**<br>Children demonstrate an increasing awareness of the environment in which they live, especially how people (including themselves) relate to that environment.<br><br>**Benchmarks:**<br>The child:<br>1. Interacts with the world, first with familiar settings and then with less familiar ones; first in simple ways and then in more complex, exploratory ways.<br>2. Constructs meaning about him/herself and the world through relevant and meaningful experiences with objects and their environment. | |

## IELS Alignment with Iowa CORE English Language Arts: Speaking and Listening

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| | 3. Recognizes aspects of the environment, such as roads, buildings, trees, gardens, bodies of water, or land formations.<br>4. Recognizes that people share the environment with other people, animals, and plants.<br>5. Understands that people can take care of the environment through activities and experiences, such as cleaning, conserving, reusing, and recycling.<br>6. Recognizes a variety of jobs and the work associated with them. | |

# IELS Alignment with Iowa CORE Mathematics for Kindergarten

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Physical Well-Being and Motor Development (Area 1)**<br>**Mathematics and Science (Area 5)** | **Physical Well-Being and Motor Development (Area 8)**<br>**Mathematics and Science (Area 12)** | **Counting and Cardinality** |
| *Small Motor Development (1.3)*<br>**Standard:**<br>Infants and toddlers develop small motor skills.<br><br>**Benchmarks:**<br>The infant:<br>1. Uses hand-eye coordination to perform self-help and small motor tasks, such as eating food, picking up objects, placing objects on a surface, and transferring objects from hand to hand.<br><br>The toddler:<br>2. Uses hand-eye coordination to perform self-help and small motor tasks such as eating with a fork or spoon, completing simple puzzles, stacking blocks, dressing self with assistance, scribbling with crayons or markers, and participating in finger plays. | *Small Motor Development (8.3)*<br>**Standard:**<br>Children develop small motor skills.<br><br>**Benchmarks:**<br>The child:<br>1. Uses hand-eye coordination to perform self-help and small motor tasks with a variety of manipulative materials such as beads, pegs, shoelaces, and puzzle pieces.<br>2. Demonstrates increased skills in using scissors and writing tools for various learning experiences. | **Know number names and the count sequence.**<br>1. Count to 100 by ones and by tens. **(K.CC.1.)**<br>2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). **(K.CC.2.)**<br>3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). **(K.CC.3.)**<br><br>**Count to tell the number of objects**<br>4. Understand the relationship between numbers and quantities; connect counting to cardinality.<br>a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.<br>b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.<br>c. Understand that each successive number name refers to a quantity that is one larger. **(K.CC.4.)**<br>5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. **(K.CC.5.)** |
| *Comparison and Number (5.1)*<br>**Standard:**<br>Infants and toddlers show increasing understanding of comparisons and amount, including use of numbers and counting.<br><br>**Benchmarks:**<br>The infant:<br>1. Begins to notice characteristics of objects such as size, color, shape, or quantity.<br><br>The toddler also:<br>2. Matches and sorts objects by size, color, shape, or quantity.<br>3. Begins to use simple counting in play and interactions, although numbers may occur out of order. | *Comparison and Number (12.1)*<br>**Standard:**<br>Children understand counting, ways of representing numbers, and relationships between quantities and numerals.<br><br>**Benchmarks:**<br>The child:<br>1. Counts to five.<br>2. Counts objects, pointing to each one correctly while counting.<br>3. Uses language such as more or less to compare quantities.<br>4. Begins to recognize small quantities without counting them.<br>5. Starts recognizing and naming of numbers. | |

## IELS Alignment with Iowa CORE Mathematics for Kindergarten

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| | | **Compare numbers**<br>6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. **(K.CC.6.)**<br>7. Compare two numbers between 1 and 10 presented as written numerals. **(K.CC.7.)** |

# IELS Alignment with Iowa CORE Mathematics for Kindergarten

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Approaches to Learning (Area 2)**<br>**Mathematics and Science (Area 5)** | **Approaches to Learning (Area 9)**<br>**Mathematics and Science (Area 12)** | **Operations and Algebraic Thinking** |
| *Reasoning and Problem Solving (2.3)*<br>**Standard:**<br>Infants and toddlers demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Uses an object, action, or adult to accomplish tasks, such as pulling a string to reach a toy or pushing a button to hear a sound.<br>2. Experiments to find a solution to a problem.<br>3. Imitates an adult action to solve a problem.<br>4. Recognizes difficulties and adjusts actions to correct mistakes.<br>5. Seeks and accepts help when encountering a problem beyond his/her ability to solve independently.<br><br>*Comparison and Number (5.1)*<br>**Standard:**<br>Infants and toddlers show increasing understanding of comparisons and amount, including use of numbers and counting.<br><br>**Benchmarks:**<br>The infant:<br>1. Begins to notice characteristics of objects such as size, color, shape, or quantity.<br><br>The toddler also:<br>2. Matches and sorts objects by size, color, shape, or quantity.<br>3. Begins to use simple counting in play and interactions, although numbers may occur out of order. | *Reasoning and Problem Solving (9.3)*<br>**Standard:**<br>Children demonstrate strategies for reasoning and problem solving.<br><br>**Benchmarks:**<br>The child:<br>1. Shows interest in and finds a variety of solutions to questions, tasks, or problems.<br>2. Recognizes and solves problems through active exploration, including trial and error, and through interactions and discussions with peers and adults.<br>3. Shares ideas or makes suggestions of how to solve a problem presented by another person.<br><br>*Comparison and Number (12.1)*<br>**Standard:**<br>Children understand counting, ways of representing numbers, and relationships between quantities and numerals.<br><br>**Benchmarks:**<br>The child:<br>1. Counts to five.<br>2. Counts objects, pointing to each one correctly while counting.<br>3. Uses language such as more or less to compare quantities.<br>4. Begins to recognize small quantities without counting them.<br>5. Starts recognizing and naming of numbers. | **Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**<br>1. Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. **(K.OA.1.)**<br>2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. **(K.OA.2.)**<br>3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). **(K.OA.3.)**<br>4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. **(K.OA.4.)** |

# IELS Alignment with Iowa CORE Mathematics for Kindergarten

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Patterns (5.2)*<br>**Standard:**<br>Infants and toddlers begin to recognize patterns.<br><br>**Benchmarks:**<br>The infant:<br>1. Demonstrates expectations for familiar sequences of routines and experiences such as crying when it is near feeding time.<br><br>The toddler:<br>2. Shows recognition of sequences in events or objects.<br>3. Repeats actions in sequence, such as fingerplays<br>4. Notices patterns and objects in the environment.<br>5. Organizes objects into groups during play and exploration. | *Patterns (12.2)*<br>**Standard:**<br>Children understand patterns.<br><br>**Benchmarks:**<br>The child:<br>1. Recognizes and creates patterns moving from simple to complex.<br>2. Predicts what comes next in a pattern.<br><br>*Scientific Investigations and Problem Solving (12.5)*<br>**Standard:**<br>Children plan and carry out investigations to answer questions and test solutions to problems.<br><br>**Benchmarks:**<br>The child:<br>1. Asks questions of the natural and designed world that can be answered through direct investigation.<br>2. Plans and carries out investigations.<br>3. Makes close observations to determine causes of problems.<br>4. Uses evidence collected from investigations to evaluate results.<br>5. Communicates results of investigation to others. | 5. Fluently add and subtract within 5. **(K.OA.5.)** |
| *Begins at Kindergarten* | *Begins at Kindergarten* | |

## IELS Alignment with Iowa CORE Mathematics for Kindergarten

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Mathematics and Science (Area 5)** | **Mathematics and Science (Area 12)** | **Number and Operations in Base Ten** |
| *Begins at Kindergarten* | *Begins at Kindergarten* | **Work with numbers 11-19 to gain foundations for place value.**<br>1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. **(K.NBT.1)** |

# IELS Alignment with Iowa CORE Mathematics for Kindergarten

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Mathematics and Science (Area 5)** | **Mathematics and Science (Area 12)** | **Measurement and Data** |
| <u>*Comparison and Number (5.1)*</u><br>**Standard:**<br>Infants and toddlers show increasing understanding of comparisons and amount, including use of numbers and counting.<br><br>**Benchmarks:**<br>The infant:<br>1. Begins to notice characteristics of objects such as size, color, shape, or quantity.<br><br>The toddler:<br>2. Matches and sorts objects by size, color, shape, or quantity.<br>3. Begins to use simple counting in play and interactions, although numbers may occur out of order.<br><br><u>*Shapes and Spatial Relationships (5.3)*</u><br>**Standard:**<br>Infants and toddlers show increasing understanding of spatial relationships.<br><br>**Benchmarks:**<br>The infant:<br>1. Takes objects apart.<br>2. Fills and empties containers.<br><br>The toddler:<br>3. Takes objects apart and attempts to put them together.<br>4. Shows awareness of his/her own body space. | <u>*Comparison and Number (12.1)*</u><br>**Standard:**<br>Children understand counting, ways of representing numbers, and relationships between quantities and numerals.<br><br>**Benchmarks:**<br>The child:<br>1. Counts to five.<br>2. Counts objects, pointing to each one correctly while counting.<br>3. Uses language such as more or less to compare quantities.<br>4. Begins to recognize small quantities without counting them.<br>5. Starts recognizing and naming of numbers.<br><br><u>*Shapes and Spatial Relationships (12.3)*</u><br>**Standard:**<br>Children understand shapes and spatial relationships.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates understanding of spatial words such as up, down, over, under, top, bottom, inside, outside, in front and behind.<br>2. Identifies 2- and 3- dimensional shapes.<br>3. Notices characteristics, similarities, and differences among shapes, such as corners, points, edges, and sides.<br>4. Notices how shapes fit together and can be taken apart to form other shapes. | **Describe and compare measurable attributes.**<br>1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. **(K.MD.1.)**<br>2. Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.* **(K.MD.2.)**<br><br>**Classify objects and count the number of objects in each category.**<br>3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. **(K.MD.3.)** |

# IELS Alignment with Iowa CORE Mathematics for Kindergarten

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Scientific Reasoning (5.4)*<br>**Standard:**<br>Infants and toddlers observe, describe, predict and explore the world around them.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Engages in a variety of play experiences and exploration within inside and outside environments.<br>2. Demonstrates curiosity in learning about the world around them.<br>3. Shows understanding of object permanence (that people exist when they cannot be seen, and objects exist when hidden under a blanket) by looking for people and objects that have disappeared.<br>4. Notices his/her own individual needs such as hunger or thirst.<br>5. Begins to notice and label objects and events in the indoor and outdoor environments.<br>6. Explores and engages in problem solving. | *Measurement (12.6)*<br>**Standard:**<br>Children understand comparisons and measurement.<br><br>**Benchmarks:**<br>The child:<br>1. Sorts, classifies and puts objects in series, using a variety of properties.<br>2. Makes comparisons between several objects based on one or more attributes, such as length, height, weight, and area, using words such as taller, shorter, longer, bigger, smaller, heavier, lighter, full, empty, length, height, and weight.<br>3. Measures objects using non-standard units of measurement, such as blocks to determine how tall a child is.<br>4. Develops an awareness of simple time concepts within his/her daily life such as yesterday, today, tomorrow, morning, afternoon, and night. | |

# IELS Alignment with Iowa CORE Mathematics for Kindergarten

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| **Mathematics and Science (Area 5)** | **Mathematics and Science (Area 12)** | **Geometry** |
| *Comparison and Number (5.1)*<br>**Standard:**<br>Infants and toddlers show increasing understanding of comparisons and amount, including use of numbers and counting.<br><br>**Benchmarks:**<br>The infant:<br>1. Begins to notice characteristics of objects such as size, color, shape, or quantity.<br><br>The toddler also:<br>2. Matches and sorts objects by size, color, shape, or quantity.<br>3. Begins to use simple counting in play and interactions, although numbers may occur out of order.<br><br>*Shapes and Spatial Relationships (5.3)*<br>**Standard:**<br>Infants and toddlers show increasing understanding of spatial relationships.<br><br>**Benchmarks:**<br>The infant:<br>1. Takes objects apart.<br>2. Fills and empties containers.<br><br>The toddler:<br>3. Takes objects apart and attempts to put them together.<br>4. Shows awareness of his/her own body space. | *Comparison and Number (12.1)*<br>**Standard:**<br>Children understand counting, ways of representing numbers, and relationships between quantities and numerals.<br><br>**Benchmarks:**<br>The child:<br>1. Counts to five.<br>2. Counts objects, pointing to each one correctly while counting.<br>3. Uses language such as more or less to compare quantities.<br>4. Begins to recognize small quantities without counting them.<br>5. Starts recognizing and naming of numbers.<br><br>*Shapes and Spatial Relationships (12.3)*<br>**Standard:**<br>Children understand shapes and spatial relationships.<br><br>**Benchmarks:**<br>The child:<br>1. Demonstrates understanding of spatial words such as up, down, over, under, top, bottom, inside, outside, in front and behind.<br>2. Identifies 2- and 3- dimensional shapes.<br>3. Notices characteristics, similarities, and differences among shapes, such as corners, points, edges, and sides.<br>4. Notices how shapes fit together and can be taken apart to form other shapes. | **Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).**<br>1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above, below, beside, in front of, behind,* and *next to*. **(K.G.1.)**<br>2. Correctly name shapes regardless of their orientations or overall size. **(K.G.2.)**<br>3. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). **(K.G.3.)**<br><br>**Analyze, compare, create, and compose shapes.**<br>4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length). **(K.G.4.)**<br>5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. **(K.G.5.)**<br>6. Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"* **(K.G.6.)** |

# IELS Alignment with Iowa CORE Mathematics for Kindergarten

| Infant/Toddler:<br>Birth – 3 Years | Preschool:<br>3 – 5 Years | Kindergarten: |
|---|---|---|
| *Scientific Reasoning (5.4)*<br>**Standard:**<br>Infants and toddlers observe, describe, predict and explore the world around them.<br><br>**Benchmarks:**<br>The infant or toddler:<br>1. Engages in a variety of play experiences and exploration within inside and outside environments.<br>2. Demonstrates curiosity in learning about the world around them.<br>3. Shows understanding of object permanence (that people exist when they cannot be seen, and objects exist when hidden under a blanket) by looking for people and objects that have disappeared.<br>4. Notices his/her own individual needs such as hunger or thirst.<br>5. Begins to notice and label objects and events in the indoor and outdoor environments.<br>6. Explores and engages in problem solving. | *Scientific Reasoning (12.4)*<br>**Standard:**<br>Children observe, describe, and predict the world around them.<br><br>**Benchmarks:**<br>The child:<br>1. Notices, describes, and makes comparisons in the natural and designed world.<br>2. Uses scientific tools such as balance scales, measuring tapes, hand lenses, and microscopes to extend the senses and aid understanding.<br>3. Makes close observations of living and non-living things.<br>4. Organizes, classifies, and records information drawn from observations.<br>5. Uses data from observations to describe the world including patterns, cause and effect relationships, and predictions.<br><br>*Measurement (12.6)*<br>**Standard:**<br>Children understand comparisons and measurement.<br><br>**Benchmarks:**<br>The child:<br>1. Sorts, classifies and puts objects in series, using a variety of properties.<br>2. Makes comparisons between several objects based on one or more attributes, such as length, height, weight, and area, using words such as taller, shorter, longer, bigger, smaller, heavier, lighter, full, empty, length, height, and weight.<br>3. Measures objects using non-standard units of measurement, such as blocks to determine how tall a child is.<br>4. Develops an awareness of simple time concepts within his/her daily life such as yesterday, today, tomorrow, morning, afternoon, and night. | |

## Alignment of Early Childhood Mathematical Practices

### 1. Makes sense of problems and persevere in solving them.

***Embedded in the following standards:***

| Infant/Toddler | Preschool |
|---|---|
| Curiosity and Initiative (2.1)<br>Engagement and Persistence (2.2)<br>Reasoning and Problem Solving (2.3)<br>Play and Senses (2.4)<br>Scientific Reasoning (5.4) | Curiosity and Initiative (9.1)<br>Engagement and Persistence (9.2)<br>Reasoning and Problem Solving (9.3)<br>Play and Senses (9.4)<br>Scientific Reasoning (12.4)<br>Scientific Investigations and Problem Solving (12.5) |

***Adult supports:***

| Infant/Toddler | Preschool |
|---|---|
| • Adults avoid the temptation to solve social and environmental problems for children and instead prompt with "How can we solve this problem?" and then model a solution.<br>• Ainsley (12 months) played with her shapes bucket, dropping the various pieces through the correct slots. The adult sat down next to her, talking with her about the task and what to do when the piece didn't fit with the first try.<br>• Abbi (24 months) watched her older sister put an interlocking puzzle together, and then she went to the shelf and reached for a knobbed puzzle. The adult joined her and together they dumped the pieces out beside her sister's puzzle and picked the pieces up one at a time to place them in the correct spot. When Abbi picked up a piece and placed it in a spot that was incorrect, she flipped and turned it to try to make it fit. When unsuccessful, Abbi picked up another piece until she successfully placed the piece in the correct spot. | • Children are given multiple opportunities to solve puzzles, some of which are "just a little" too difficult for them.<br>• Adults avoid the temptation to solve social and environmental problems for children and instead prompt with "How can we solve this problem?"<br>• Children are allotted sufficient free choice time to allow them to work through problems to their solution without their play (problem solving) time being interrupted.<br>• Carlos watches other children in a center as they remove links and experiment with the length of chain needed in order to knock a can off of blocks. Carlos goes to the chain and begins removing links. He remains at the center for 20 minutes, removing and adding links as the adult talks with him about the activity. |

### 2. Reason abstractly and quantitatively.

***Embedded in the following standards:***

| Infant/Toddler | Preschool |
|---|---|
| Curiosity and Initiative (2.1)<br>Reasoning and Problem Solving (2.3)<br>Comparison and Number (5.1)<br>Patterns (5.2)<br>Scientific Reasoning (5.4) | Curiosity and Initiative (9.1)<br>Reasoning and Problem Solving (9.3)<br>Comparison and Number (12.1)<br>Patterns (12.2)<br>Scientific Reasoning (12.4)<br>Scientific Investigations and Problem Solving (12.5)<br>Measurement (12.6) |

***Adult supports:***

| Infant/Toddler | Preschool |
|---|---|
| • Children are provided with multiple and varied manipulatives to explore and observe the adult in a talk aloud and/or think aloud about more, less, and the same.<br>• Thomas (20 months) is getting ready to go outside to play in the snow. As he puts on his boots and gloves, the adult counts '1 boot, 2 boots' and '1 glove, 2 gloves' while she assists him in getting ready. | • Adults consciously use words such as "several, some, many, a few, etc" as they ask children to assist them with tasks throughout the classroom.<br>• Children are asked to "put sets together" and "take them apart" through daily activities. For example, "Would we have enough blocks if we put together all of the short ones and all of the long ones?"<br>• Ava was playing with the box of colored counting bears. She made a pattern with the red and blue bears. After she showed it to the adult, she was asked to tell about it. Ava read the pattern. The adult asked Ava how many bears she had used. Ava counted 19 of the 20 bears she had used. Ava made another pattern beside her red and blue one, using the green and yellow bears. She extended it so that it was longer than her first one. When she was finished, the adult said, "Which pattern is the longest?" Ava pointed to the green and yellow pattern. |

## Alignment of Early Childhood Mathematical Practices

### 3. Construct viable arguments and critique the reasoning of others.

***Embedded in the following standards:***

| Infant/Toddler | Preschool |
|---|---|
| Curiosity and Initiative (2.1)<br>Reasoning and Problem Solving (2.3)<br>Self (3.1)<br>Self-Regulation (3.2)<br>Relationships with Adults (3.3)<br>Relationships with Children (3.4)<br>Scientific Reasoning (5.4) | Curiosity and Initiative (9.1)<br>Reasoning and Problem Solving (9.3)<br>Self (10.1)<br>Self-Regulation (10.2)<br>Relationships with Adults (10.3)<br>Relationships with Children (10.4)<br>Scientific Reasoning (12.4)<br>Scientific Investigations and Problem Solving (12.5) |

***Adult supports:***

| Infant/Toddler | Preschool |
|---|---|
| • Throughout the day, children observe the adult model think alouds, which include, “I wonder why…?”, “It makes sense to me that…”, or “When I ____, this happens because….” and modeling possible responses.<br>• Zachary (6 months) is playing with a toy that lights up when a button is pushed. The adult sits down next to him and says, “I wonder what happens when we push the button?” She then directs his hand to push the button and explains, “When you push the button, it lights up.”<br>• Two-year-old children are observing birds at the bird feeder. The adult says, “The birds are eating. They are hungry.” | • Children are provided with opportunities on a daily basis to respond to “I wonder what would happen if…?” and “Why do you think this is happening?” questions during their free choice play opportunities, small group investigations, and/or adult led demonstrations.<br>• Children are given opportunities to represent their learning through drawings and then to explain to adults and peers what they have learned and are thinking (hypothesizing).<br>• Zoey, Samantha, and a familiar adult were playing Tic-tac-toe during center time. Zoey took an extra turn and Samantha got upset. The adult models, “I feel mad because you took too many turns, Zoey.” They discuss how to solve the problem together. |

### 4. Model with mathematics.

***Embedded in the following standards:***

| Infant/Toddler | Preschool |
|---|---|
| Curiosity and Initiative (2.1)<br>Reasoning and Problem Solving (2.3)<br>Comparison and Number (5.1)<br>Patterns (5.2)<br>Shapes and Spatial Reasoning (5.3)<br>Scientific Reasoning (5.4) | Curiosity and Initiative (9.1)<br>Reasoning and Problem Solving (9.3)<br>Comparison and Number (12.1)<br>Patterns (12.2)<br>Shapes and Spatial Reasoning (12.3)<br>Scientific Reasoning (12.4)<br>Scientific Investigations and Problem Solving (12.5)<br>Measurement (12.6) |

***Adult supports:***

| Infant/Toddler | Preschool |
|---|---|
| • When children arrive in the morning, they or an adult place their photo on a piece of felt. After all children arrive, the adult arranges the photos to create a bar graph. She then models a think aloud to explain what the bar graph displays.<br>• During center time, Ava (26 months) is playing with colored cubes. She stacks them by color and the adult helps her count them and line them up from smallest to largest so they look like a bar graph. | • Children are given opportunities to develop and use simple charts and graphs to document their findings during periods of investigation.<br>• Adults model the use of simple graphs and charts throughout the course of all daily work, for example: charting present and absent, charting type of drink for snack, charting answers to questions of the day, growth charts, etc.<br>• Adults use drawings and manipulatives as they talk about mathematical problems in the preschool. For example: "We need to have enough room for x people in our library area. How can we find out if we have enough room?” Discussions, drawings and then real life “check it outs” can follow such a question.<br>• Kayden was in the housekeeping center. He stood in front of the stove for several minutes turning the knobs in different directions. The adult asked what he was doing. He said. "I made a pattern.” When the adult investigated more closely she saw that he had turned the knobs so that they alternated in an AB pattern with one knob up, and then one turned to the side across the front of the oven. She asked Kayden to share the pattern with his classmates. |

## Alignment of Early Childhood Mathematical Practices

### 5. Use appropriate tools strategically.

***Embedded in the following standards:***

| Infant/Toddler | Preschool |
|---|---|
| Curiosity and Initiative (2.1)<br>Reasoning and Problem Solving (2.3)<br>Play and Senses (2.4)<br>Comparison and Number (5.1)<br>Scientific Reasoning (5.4) | Curiosity and Initiative (9.1)<br>Reasoning and Problem Solving (9.3)<br>Play and Senses (9.4)<br>Comparison and Number (12.1)<br>Scientific Reasoning (12.4)<br>Scientific Investigations and Problem Solving (12.5)<br>Measurement (12.6) |

***Adult supports:***

| Infant/Toddler | Preschool |
|---|---|
| • The adult provides a variety of nonstandard ways to measure, such as: strings, blocks, people, real feet, hollow objects, etc. and models to the children how to use such items to make conclusions about size.<br>• Technology tools are made available for children in dramatic play, as well, including: cash registers, adding machines, and calculators.<br>• Olivia (22 months) is playing in the dramatic play area, which is designed as a grocery store. The adult notices that the children in this area are putting items in the shopping cart, so she joins them and models going through the check-out while Olivia pushes the buttons on the cash register. The adult models asking, "How much are the groceries?" "Here is $20, is that enough or do I need more?" | • The preschool classroom contains a variety of standard measures for children to use in their exploration of any learning environment. Adults help children to identify nonstandard ways to measure as well: "strings, blocks, people, real feet, hollow objects, etc" and provide multiple opportunities for children to use these tools.<br>• Technology tools are made available for children, as well. These tools include: cash registers and adding machines, even simple calculators available on computers and mobile devices.<br>• Adults model the use of paper and pencil to document and solve mathematical problems on a daily basis.<br>• Three children were in the discovery center where the adult had placed a bathroom scale, a yardstick, and Learning Links. The adult used the scale and the yardstick the day before to weigh and measure each child in the classroom and then posted a documentation board with each measurement. The children began using the tools to weigh and measure themselves again.<br>• Two children were linking the Learning Links together across the classroom. They worked together for several minutes and then one of the children said, "I am taller than this." The adult suggested that the child lie down on the floor to see if she was right. |

### 6. Attend to precision.

***Embedded in the following standards:***

| Infant/Toddler | Preschool |
|---|---|
| Language Understanding and Use (4.1)<br>Comparison and Number (5.1)<br>Scientific Reasoning (5.4) | Language Understanding and Use (11.1)<br>Comparison and Number (12.1)<br>Scientific Reasoning (12.4)<br>Scientific Investigations and Problem Solving (12.5) |

***Adult supports:***

| Infant/Toddler | Preschool |
|---|---|
| • Adults model "counting again" and double checking their counting/measuring to the children.<br>• Adults are heard checking themselves with words such as "Does this make sense?" and then modeling a think aloud to the children.<br>• MeiWei (14 months) was playing with soft blocks when the adult joined her on the floor. The adult began counting the blocks as MeiWei stacked them. The adult recounted the blocks when another child joined them. | • Children are seen counting and then "counting again" to be sure they have counted correctly.<br>• Adults encourage children to "check to be sure we counted, measured, etc correctly".<br>• Adults and children are heard checking themselves with words such as "does this make sense to me"?<br>• Mathematical "guesses" are checked with manipulatives before answers are finalized.<br>• Chase is lining up stuffed animals and counting each one as he sits them in a line. He tells the adult that he lined up 9 stuffed animals. She says, "Are you sure?" He counts them again while pointing at each one and responds, "Yes, there are 9." |

## Alignment of Early Childhood Mathematical Practices

### 7. Look for and make use of structure.

***Embedded in the following standards:***

| Infant/Toddler | Preschool |
|---|---|
| Curiosity and Initiative (2.1)<br>Reasoning and Problem Solving (2.3)<br>Comparison and Number (5.1)<br>Patterns (5.2)<br>Shapes and Spatial Relationships (5.3)<br>Scientific Reasoning (5.4) | Curiosity and Initiative (9.1)<br>Reasoning and Problem Solving (9.3)<br>Comparison and Number (12.1)<br>Patterns (12.2)<br>Shapes and Spatial Relationships (12.3)<br>Scientific Reasoning (12.4)<br>Scientific Investigations and Problem Solving (12.5)<br>Measurement (12.6) |

***Adult supports:***

| Infant/Toddler | Preschool |
|---|---|
| • Adults post a picture version of the daily schedule in the classroom to remind children of the routine.<br>• At lunch, adults talk about what children did in the morning and what they will do after lunch (with regard to the daily routine).<br>• Ruby (9 months) and her dad had a routine when they arrived home each day. He would unbuckle her from the car seat and say, “Time to get the mail.” Ruby would become visibly excited and bounce in her dad’s arms. One day her Grandma picked her up at day care and took her home. When she got Ruby unbuckled from the car seat and began walking to the house, Ruby began fussing and squirming. Her Grandma said, “Ruby what’s wrong?” Ruby fussed a little more, pointed in the direction of the mailbox, and said, “da-da.” | • Children make comments about patterns that they see in the environment. Unusual patterns are pointed out to children as adults encourage patterning by a variety of common and uncommon attributes.<br>• Children have multiple opportunities to categorize according to multiple attributes and to explain their thinking to peers and an adult.<br>• Lindy took all of the white lids out of the container of colored lids. She placed all of the lids in a row. The adult asked Lindy what she noticed about the lids. She said, “Some of them have red on the top.” The adult asked her how she could sort the lids she had on the table. Lindy placed the white lids with red on the top on one side and the plain white lids on the other side of her. Together, they labeled the two groups. |

### 8. Look for and express regularity in repeated reasoning.

***Embedded in the following standards:***

| Infant/Toddler | Preschool |
|---|---|
| Curiosity and Initiative (2.1)<br>Reasoning and Problem Solving (2.3)<br>Patterns (5.2)<br>Shapes and Spatial Reasoning (5.3)<br>Scientific Reasoning (5.4) | Curiosity and Initiative (9.1)<br>Reasoning and Problem Solving (9.3)<br>Patterns (12.2)<br>Shapes and Spatial Reasoning (12.3)<br>Scientific Reasoning (12.4)<br>Scientific Investigations and Problem Solving (12.5) |

***Adult supports:***

| Infant/Toddler | Preschool |
|---|---|
| • Adults share their thinking orally while interacting with the infant/toddler. “This reminds me of when we…” or “This is just like when I/we…”<br>• Joey (10 months) was sitting in his high chair while his mom got dinner ready. She looked over at him and smiled, then tapped the spoon twice and then slapped the counter. Joey smiled back and began banging his spoon on his high chair tray. His mom made the pattern again and waited for him to try it. He smiled at her and banged his spoon several times. After several more repetitions from his mom, Joey made a pattern like hers by banging his spoon twice and then slapping his tray. | • Children verbalize things like, “this is like when we…..”<br>• During morning group time Cason said. "I have a pattern.” He demonstrated as he said. "Punch, kick, punch, kick, punch, kick". Raymie said. "I have a pattern too." He demonstrated by spreading his legs out and bringing them back together. He said. "In, out, in, out, in, out.”<br>• Cam, Mikie, and Oren are building block towers again. Today the challenge was to see who could build the tallest tower. After several structures fell down before they were finished, the adult asked the children to describe why the structures were falling. They discussed what size the blocks on the bottom should be in order to make the structure sturdy enough to get as tall as the wanted it to be. The children were able to make a mental relationship between the size of the foundation and the height of the tower. |