

Slide 1



Welcome to Iowa's AYP Alternate Assessments for the 2014-2015 school year. This is the third presentation in a series of eight that address Iowa's AYP Alternate Assessments. Beginning fall 2014, Dynamic Learning Maps is Iowa's Next Generation Alternate Assessment in ELA and math.

In this presentation, we will examine the Learning Maps of the Dynamic Learning Maps assessment.

Learning Maps

- Map Development
- Skills Included in Learning Maps
- Portion of the Maps

The slide features a decorative footer with a blue-to-yellow gradient on the left and a circular logo of the University of North Carolina on the right. The logo contains a central emblem and the text "UNIVERSITY OF NORTH CAROLINA" around the perimeter.

Within the maps we will examine how the maps were developed, the skills included in the learning maps and a portion of the maps

Learning Map

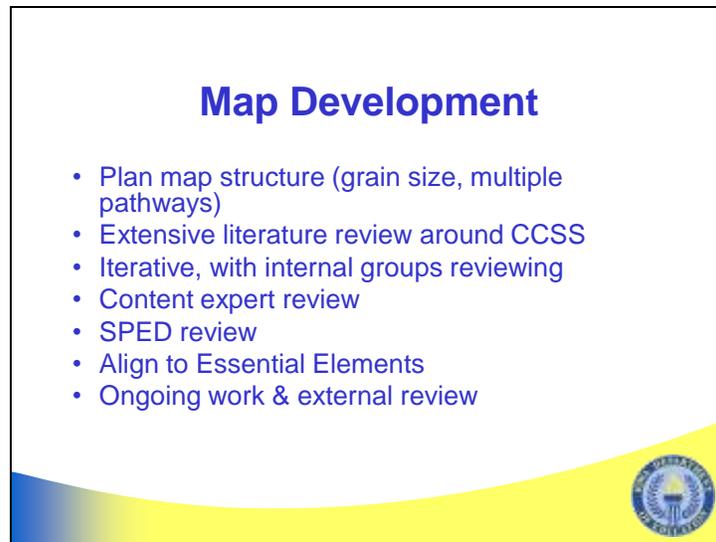
- A learning map is a network of sequenced learning targets
- It shows a learning landscape in which multiple skills are related to many other skills
- It shows the relationships between skills but also show multiple learning pathways
 - Instead of assuming that all children learn a skill in the same way, allowing for multiple pathways recognizes that there are alternate ways to learn the same skill



For each content area- ELA and Math a learning map was developed.

A Learning map is

- A network of sequenced learning targets
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Map Development

- Plan map structure (grain size, multiple pathways)
- Extensive literature review around CCSS
- Iterative, with internal groups reviewing
- Content expert review
- SPED review
- Align to Essential Elements
- Ongoing work & external review

The slide features a blue and yellow gradient at the bottom and a circular logo in the bottom right corner.

The Learning maps have been developed over the course of the past few years.

Several steps were taken to develop the map.

The first step was to determine what type of grain size would be represented in the maps and examine how academic content can be represented, either very large or smaller discrete knowledge, skills, and understandings.

The second step was to determine are the pathways between the knowledge and skills within the map. These pathways are not like learning progressions, which imply single linear paths and prerequisite steps. The idea of a dynamic learning map is there are multiple pathways and multiple routes for which students can follow to reach larger understandings of the content.

After figuring out the basic structures of the map, an extensive literature review was completed on how students learn and the understanding of how specific academic content develops.

Small group subsequently engaged in synthesis and met analysis reviews working within smaller segments of the map.

Content experts in ELA and math examined the knowledge and skills within the maps to determine if any skills were missing and how those that were listed, were represented.

In the special education review, educators who know students with significant cognitive disabilities examined the relationships among the skills in the map and determine if the pathways were appropriate, where or if there might be barriers, and how to build in multiple pathways.

While the learning maps were being developed, the Essential Elements were built separately. The goal was to take the giant learning map of research based understanding of how knowledge and skills develop and then layer on

the Essential Elements over the top of the map. This is the method of how the learning maps are aligned to and represent the knowledge and skills represented in the Iowa Core Essential Elements.

Work continues on the maps. DLM is working on refining the foundational section of the map, to provide as much as possible, more skills at the initial level of access for students who are at the pre symbolic/pre intentional and may be working on skills such as being able to sustain attention to something in an academic environment.

The map will continue to evolve as we learn more from student participating in the assessment.

Ongoing work and external review of content experts are reviewing the map again.

Skills Included in Learning Maps

- **Tested Subject-Specific Skills**
 - These skills include things like knowing a vocabulary word or being able to solve a multiplication problem.



Tested Subject-Specific Skills are included in the learning maps.

These academic skills include things like knowing a vocabulary word or being able to solve a multiplication problem.

Skills Included in Learning Maps

- **Related Precursor Academic Skills**
 - These are the underlying skills necessary to master the tested skill
 - For example, to solve a multiplication problem, a student first needs to understand what numbers are, be able to order numbers, etc.
 - For each grade-level skill that is tested, there are numerous precursor skills.



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Skills Included in Learning Maps

- **Attention Skills**
 - Before a student can show knowledge of a particular subject, the student must first be able to focus on the task or item presented



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- **Communication Skills**
 - These are skills that allow students to communicate their answers. Communication skills are not limited to speech, but include a variety of things like pointing or nodding



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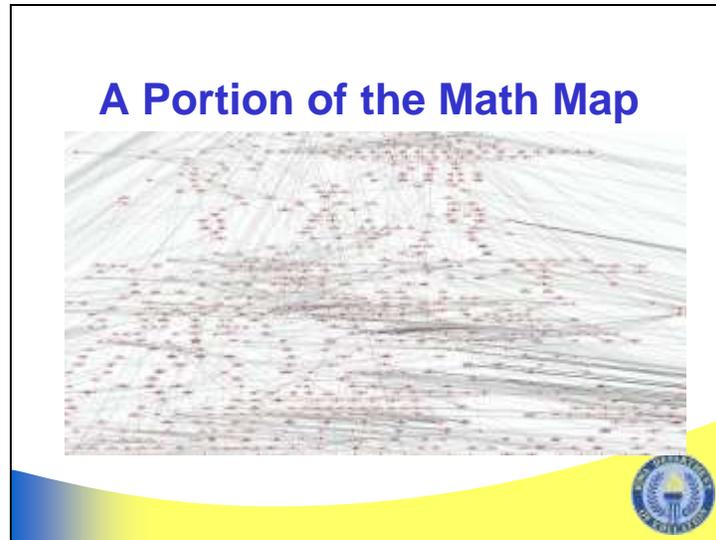
Communication skills are not limited to speech, but include a variety of things like pointing, nodding, or eye gaze.

Skills Included in Learning Maps

- By mapping these and other types of skills, learning maps allow students to show what they do know rather than simply cataloging what they don't know

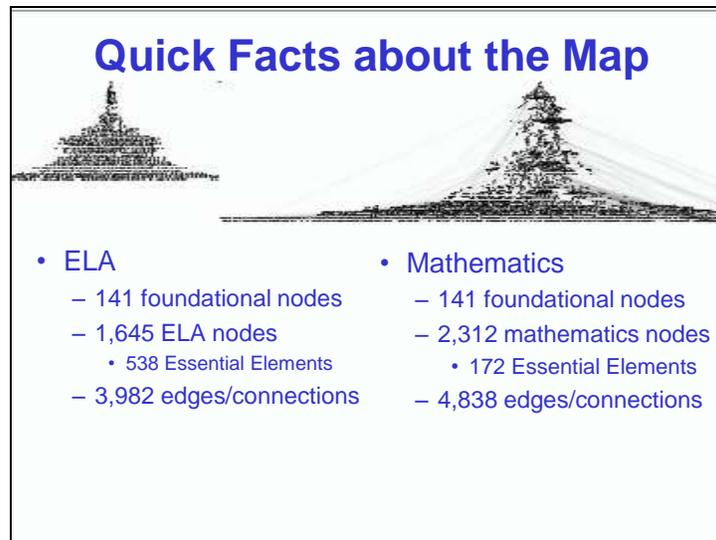


By mapping these and other types of skills, the learning maps allow students to show what they do know rather than simply cataloging what they don't know.



This is an earlier version of the math map and just one tiny segment of the learning map.

The boxes you see within the map are called nodes. Nodes are those discrete knowledge, skills, and understandings that build to a larger understanding of the academic content.



This image is a very rough representation of what the learning maps look like when they are collapsed.

In each map, in ELA and math there are 141 foundational at this time. Foundational nodes are precursor skills to any academic kind of a work.

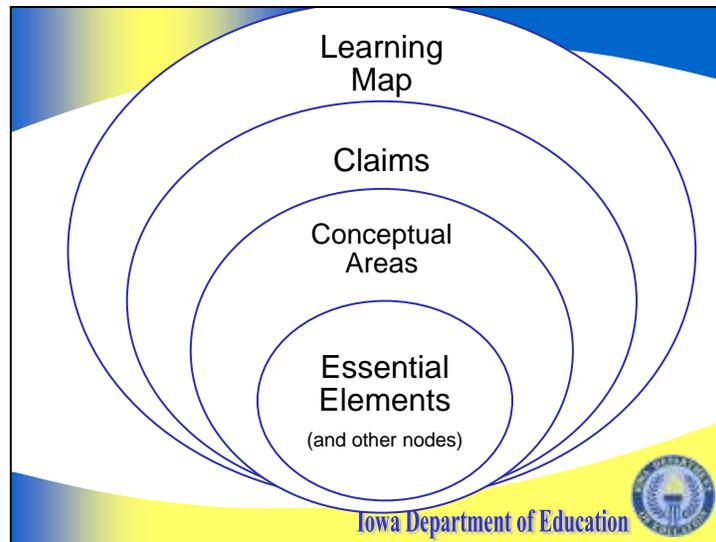
Students who are at this level, focus on these skills and are building the capacity they need for academic work in either of the subjects.

In ELA, there are over 1,600 nodes. These span from foundational nodes all they way up to skills aligned to the Iowa Core at the high school level.

In math, there are over 2,300 nodes. The vast numbers of nodes support the concept of multiple pathways.

There are almost 4, 000 relationships amongst those 1,600 nodes in ELA and almost 5,000 connection among the nodes of the map.

The learning maps where originally developed for test item developers and are very large and complex. As such, the maps were organized in a manner to support teachers' understanding of how the Iowa Core Essential Elements are situated within the learning maps of the DLM alternate assessment.



The learning maps are first organized and then supported by claims. Nested within claims are conceptual areas that further subdivide the claims and those conceptual areas as a whole, and then support the ability to make the claim.

Then finally, the Essential elements and other nodes are nested within those conceptual areas.

Claims

- A broad statement about what the DLM™ consortium expects students to learn and to be able to demonstrate within each content area.
- Each claim is subdivided into two or more conceptual areas



As Claim is a broad statement about what the DLM™ consortium expects students to learn and to be able to know and do or demonstrate within each content area.

ELA Major Claims

- Students can *comprehend text* in increasingly complex ways
- Students can produce *writing* for a range of purposes and audiences
- Students can *communicate* for a range of purposes and audiences
- Students can *investigate topics and present information*



In the area of ELA, the major claims include

- Students can comprehend text in increasingly complex ways
- Students can produce writing for a range of purposes and audiences
- Students can communicate for a range of purposes and audiences
- Students can investigate topics and present information

Math also includes major claims.

Conceptual Areas

- A region within the learning map that contains nodes directly related to Essential Elements and nodes that represent concepts and skills that support the learning of the Essential Elements
- Conceptual areas are comprised of clusters of connected concepts and skills and serve as models of how students may acquire and organize their content knowledge
- Conceptual areas are considered subparts of the overall claims



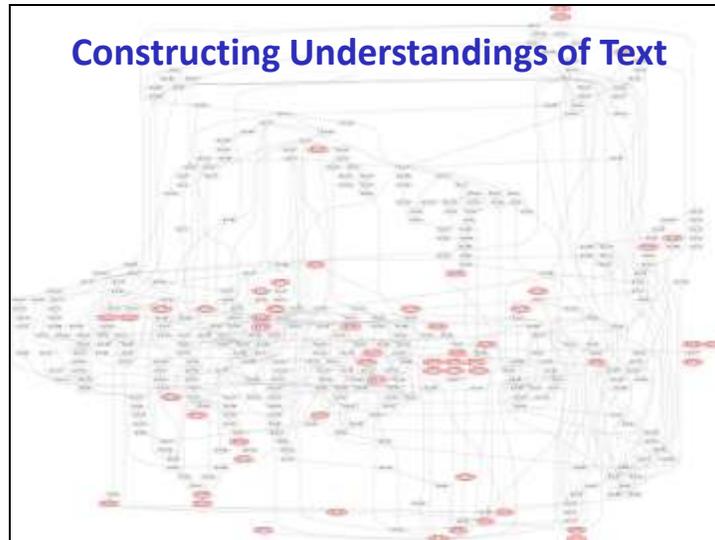
A Conceptual Area is:

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English Language Arts	
Major Claims	Conceptual Areas
Students can comprehend text in increasingly complex ways	Determining critical elements of text
	Constructing understandings of text
	Integrating ideas and information from text
Students can produce writing for a range of purposes and audiences	Using writing to communicate
	Integrating ideas and Information in writing
Students can communicate for a range of purposes and audiences	Using language to communicate with others
	Clarifying and contributing to discussion
Students can investigate topics and present information	Using sources and information
	Collaborating and presenting ideas



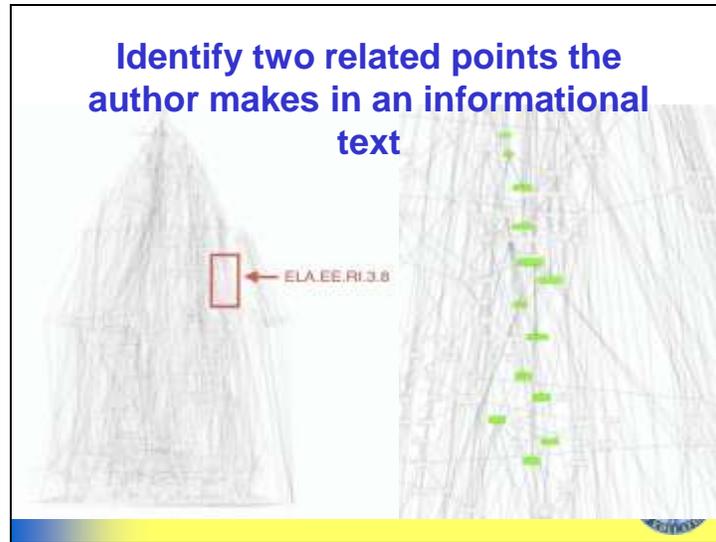
This table illustrates the major ELA claims and accompanied conceptual areas.



This is an example of a segment of the learning maps within the ELA conceptual area Constructing Understanding of Text.

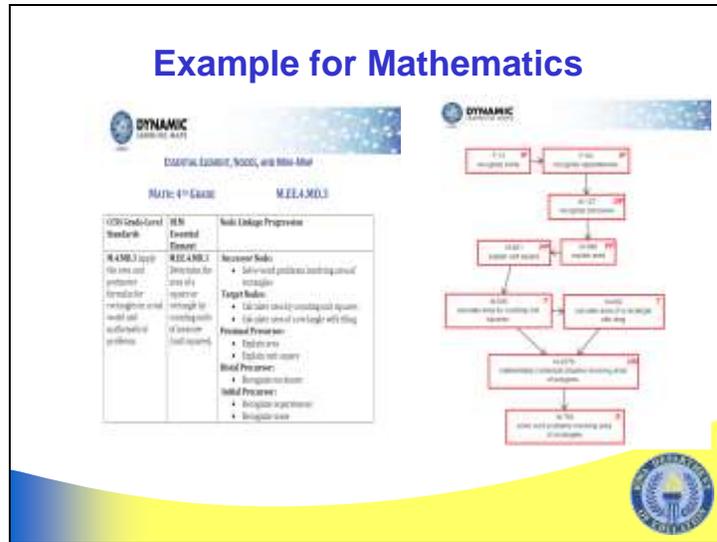
The red circles you see are the nodes that related to this claim.

In this filtered view we are able to see some relationship between the foundational nodes at the top of the screen and the how they then spread out further down the claim.



In this example, one section of a smaller segment of the map is shown that includes a set of nodes inside the conceptual in the previous slide.

The green boxes are on the right highlight where the nodes are and on the left side is the general area of the map that collection of nodes is in. The red square depicts where the 3rd grade reading Essential Element resides. As the grades grow up the boxes generally move further in the map.



This is an example of a 4th grade Math Essential Element - M.EE.4.MD.3 Determine the area of a square or rectangle by counting units of measure (unit squares).

The nodes that are highlighted in the mini map located are on the right side of this screen. At times the relationship between skills that sometimes are single pathways and other times there are multiple pathways.

There are five node levels including the target. The first level of testlets is called the initial precursor- labeled I, followed by the distal precursor-labeled DP, then the proximal precursor- labeled PP, then Target- labeled T and then Successor- labeled S.

The target in this diagram is actually two nodes next to each other on the same line. In this example there are three levels below the target.

Also in this examples there is one node level following the target labeled UN. UN indicates that in the DLM system right now, this is not a tested node, but is provided as information for teachers, as they think about the paths for instruction. Teachers may want to instruct this area of instruction within the UN nodes between administering the assessment as part of helping to build the student to the next level.

In addition to the three levels below and the target itself there is also have a fifth layer on the top called the Successor. This node linkage is for the student who is working toward that grade level target, had accomplished that target and is extend a little bit further than the target. The successor node is not the full content of the Iowa Core Standard, but it is a step beyond the target to provide an opportunity for the student to work towards.

Example for English Language Arts

ELA Grade Level Standard	ELA Essential Element	Sub-Element Progression
6.1.1.1	6.1.1.1	6.1.1.1.1
6.1.1.2	6.1.1.2	6.1.1.2.1
6.1.1.3	6.1.1.3	6.1.1.3.1
6.1.1.4	6.1.1.4	6.1.1.4.1
6.1.1.5	6.1.1.5	6.1.1.5.1
6.1.1.6	6.1.1.6	6.1.1.6.1
6.1.1.7	6.1.1.7	6.1.1.7.1
6.1.1.8	6.1.1.8	6.1.1.8.1
6.1.1.9	6.1.1.9	6.1.1.9.1
6.1.1.10	6.1.1.10	6.1.1.10.1
6.1.1.11	6.1.1.11	6.1.1.11.1
6.1.1.12	6.1.1.12	6.1.1.12.1
6.1.1.13	6.1.1.13	6.1.1.13.1
6.1.1.14	6.1.1.14	6.1.1.14.1
6.1.1.15	6.1.1.15	6.1.1.15.1
6.1.1.16	6.1.1.16	6.1.1.16.1
6.1.1.17	6.1.1.17	6.1.1.17.1
6.1.1.18	6.1.1.18	6.1.1.18.1
6.1.1.19	6.1.1.19	6.1.1.19.1
6.1.1.20	6.1.1.20	6.1.1.20.1
6.1.1.21	6.1.1.21	6.1.1.21.1
6.1.1.22	6.1.1.22	6.1.1.22.1
6.1.1.23	6.1.1.23	6.1.1.23.1
6.1.1.24	6.1.1.24	6.1.1.24.1
6.1.1.25	6.1.1.25	6.1.1.25.1
6.1.1.26	6.1.1.26	6.1.1.26.1
6.1.1.27	6.1.1.27	6.1.1.27.1
6.1.1.28	6.1.1.28	6.1.1.28.1
6.1.1.29	6.1.1.29	6.1.1.29.1
6.1.1.30	6.1.1.30	6.1.1.30.1
6.1.1.31	6.1.1.31	6.1.1.31.1
6.1.1.32	6.1.1.32	6.1.1.32.1
6.1.1.33	6.1.1.33	6.1.1.33.1
6.1.1.34	6.1.1.34	6.1.1.34.1
6.1.1.35	6.1.1.35	6.1.1.35.1
6.1.1.36	6.1.1.36	6.1.1.36.1
6.1.1.37	6.1.1.37	6.1.1.37.1
6.1.1.38	6.1.1.38	6.1.1.38.1
6.1.1.39	6.1.1.39	6.1.1.39.1
6.1.1.40	6.1.1.40	6.1.1.40.1
6.1.1.41	6.1.1.41	6.1.1.41.1
6.1.1.42	6.1.1.42	6.1.1.42.1
6.1.1.43	6.1.1.43	6.1.1.43.1
6.1.1.44	6.1.1.44	6.1.1.44.1
6.1.1.45	6.1.1.45	6.1.1.45.1
6.1.1.46	6.1.1.46	6.1.1.46.1
6.1.1.47	6.1.1.47	6.1.1.47.1
6.1.1.48	6.1.1.48	6.1.1.48.1
6.1.1.49	6.1.1.49	6.1.1.49.1
6.1.1.50	6.1.1.50	6.1.1.50.1
6.1.1.51	6.1.1.51	6.1.1.51.1
6.1.1.52	6.1.1.52	6.1.1.52.1
6.1.1.53	6.1.1.53	6.1.1.53.1
6.1.1.54	6.1.1.54	6.1.1.54.1
6.1.1.55	6.1.1.55	6.1.1.55.1
6.1.1.56	6.1.1.56	6.1.1.56.1
6.1.1.57	6.1.1.57	6.1.1.57.1
6.1.1.58	6.1.1.58	6.1.1.58.1
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6.1.1.60	6.1.1.60	6.1.1.60.1
6.1.1.61	6.1.1.61	6.1.1.61.1
6.1.1.62	6.1.1.62	6.1.1.62.1
6.1.1.63	6.1.1.63	6.1.1.63.1
6.1.1.64	6.1.1.64	6.1.1.64.1
6.1.1.65	6.1.1.65	6.1.1.65.1
6.1.1.66	6.1.1.66	6.1.1.66.1
6.1.1.67	6.1.1.67	6.1.1.67.1
6.1.1.68	6.1.1.68	6.1.1.68.1
6.1.1.69	6.1.1.69	6.1.1.69.1
6.1.1.70	6.1.1.70	6.1.1.70.1
6.1.1.71	6.1.1.71	6.1.1.71.1
6.1.1.72	6.1.1.72	6.1.1.72.1
6.1.1.73	6.1.1.73	6.1.1.73.1
6.1.1.74	6.1.1.74	6.1.1.74.1
6.1.1.75	6.1.1.75	6.1.1.75.1
6.1.1.76	6.1.1.76	6.1.1.76.1
6.1.1.77	6.1.1.77	6.1.1.77.1
6.1.1.78	6.1.1.78	6.1.1.78.1
6.1.1.79	6.1.1.79	6.1.1.79.1
6.1.1.80	6.1.1.80	6.1.1.80.1
6.1.1.81	6.1.1.81	6.1.1.81.1
6.1.1.82	6.1.1.82	6.1.1.82.1
6.1.1.83	6.1.1.83	6.1.1.83.1
6.1.1.84	6.1.1.84	6.1.1.84.1
6.1.1.85	6.1.1.85	6.1.1.85.1
6.1.1.86	6.1.1.86	6.1.1.86.1
6.1.1.87	6.1.1.87	6.1.1.87.1
6.1.1.88	6.1.1.88	6.1.1.88.1
6.1.1.89	6.1.1.89	6.1.1.89.1
6.1.1.90	6.1.1.90	6.1.1.90.1
6.1.1.91	6.1.1.91	6.1.1.91.1
6.1.1.92	6.1.1.92	6.1.1.92.1
6.1.1.93	6.1.1.93	6.1.1.93.1
6.1.1.94	6.1.1.94	6.1.1.94.1
6.1.1.95	6.1.1.95	6.1.1.95.1
6.1.1.96	6.1.1.96	6.1.1.96.1
6.1.1.97	6.1.1.97	6.1.1.97.1
6.1.1.98	6.1.1.98	6.1.1.98.1
6.1.1.99	6.1.1.99	6.1.1.99.1
6.1.1.100	6.1.1.100	6.1.1.100.1

Here is an example of ELA 6th grade Essential Element– Identify details in a text that are related to a theme or central idea.

In this case you have a small chunk of the learning map that is more linear and the larger boxes indicate where those critical junctures are for assessment. There are also points in this mini-map between these tested levels, but the concept is within the five levels.

In ELA there will be times when the levels may be collapsed. Near the bottom of the diagram on the right, there is a blue box and a yellow one within in a couple of levels that may be tested together occasionally.

These past few slides are illustrations of how the learning map is the underlying back bone of the system and how DLM has organized, prioritized, and selected content for assessment.

Contact Information

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Please provide comments and questions regarding this webcast in the survey link. For additional information on Iowa's AYP Alternates for the 2014-2015 school year, please contact Emily Thatcher.