SCIENCE CLASS: Make Your Own Mozzarella Cheese

What you’ll need:
- 1 gallon cold fat-free milk and 1 cup heavy whipping cream
- 1/3 tsp. citric acid (diluted in 1 cup cool water)
- 1/2 tsp. rennet (diluted in 1/2 cup cool water for 30 seconds)
- 6- to 8-quart stainless-steel pot
- Slotted spoon
- 1/2 cup cool water for 30 seconds
- 1/4 cup cool water for 30 seconds
- Rennet tablets
- Thermometer

Prepare your work area:
Wash your hands before you begin making this recipe. Do not prepare any other food while you are making cheese. Put all food products away. Move all sponges and dishcloths away from your work surface. Clean your work surface with soap and water or an antibacterial cleaner.

How to make the cheese:

**STEP 1**
Add 1/2 tsp. citric acid (diluted in 1 cup cool water) to 1 gallon of cold milk and 1 cup whipping cream in stainless-steel pot. Heat slowly to 90 F.

**STEP 2**
Remove pot from burner and slowly stir in 1/4 tsp. rennet (diluted in 1/4 cup cool water for 30 seconds). Cover and leave for 5 minutes.

**STEP 3**
Check the curd; it will look like custard and the whey will be clear. If too soft, let set a few more minutes.

**STEP 4**
Cut the curd into 1-inch squares with a knife that gently presses, to aid whey runoff.

**STEP 5**
Remove the burner and continue stirring slowly for 2-5 minutes. Transfer the curd to a colander or bowl, using a slotted spoon. Notice how the curd is beginning to get firmer as the whey drains.

**STEP 6**
Continue separating the curd and notice the color of the whey. Drain the whey from the curd, while gently pressing, to aid whey runoff.

**STEP 7**
Using a heatproof bowl, microwave on High for 1 minute. Pour off the whey. Knead and reheat for 30 seconds, if needed, until curd is 135 F, almost too hot to handle.

**STEP 8**
Remove curd from bowl and continue kneading. Return curd to microwave, if needed. At this point, if hot enough, it will begin to stretch. Stretch and knead, as you would bread dough. Knead until smooth and shiny.

**STEP 9**
Form into a ball and drop into ice water to cool, and then refrigerate. When cold, wrap in plastic wrap. Cheese will last for several days, but it’s best when eaten fresh.
FUEL UP TO PLAY 60
FuelUptoPlay60.com

For Students
Eat Healthy. Get Active. Make a Difference.
Fuel Up to Play 60 engages students with adult leaders to make school-related changes that lead to increased access to appealing, nutrient-dense foods and more opportunities for physical activity in a number of ways, including Healthy Eating Plays such as:

From Farm to School: Know Your Foods
Learn about the work of dairy and other farmers in producing healthy, nutritious foods and about the variety of fresh foods available to you today and where these foods come from through the “Know Your Foods” Play.

From Farm to School: Farms Deliver
Learn about dairy farms and farm families in your area, how the farming industry helps take care of the land, and about healthy eating and the nutrients that fresh foods provide through the “Farms Deliver” Play.

For Educators
Fuel Up to Play 60 is a program founded by the National Dairy Council and NFL, in collaboration with the USDA, that empowers students to take change in making small, everyday changes at school. Both schools and students can earn recognition and rewards by making wellness part of the game plan by choosing good-for-you foods and getting active at least 60 minutes a day, with comprehensive tools and resources that are available online.

For Nutrition Professionals
The expertise and guidance of School Nutrition Professionals is vital to help students “fuel up” with the nutrient-dense foods they often fall short on. These resources can help school nutrition personnel work with the other school stakeholders and the community to help achieve school wellness goals. CEUs are available for Fuel Up to Play 60 participation through the School Nutrition Association.

ACTION FOR HEALTHY KIDS
Game On
ActionForHealthyKids.org
Action for Healthy Kids’ fights childhood obesity, undernutrition and physical inactivity by helping schools become healthier places so kids can live healthier lives.

FROM A FARM FAMILY NEAR YOU
Just for Kids Materials
Schools and Community tab/ Educational Resources page MidwestDairy.com
We have everything right here for you to help students learn more about dairy farming and how milk gets from the farm to your local school.

From a Farm Family Near You
Watch the Video
Join Justin, Emma and Madison as they visit local dairy farmer Dan, tour his family farm and learn how “FAST and FRESH” milk really is. During this four-minute video, students will learn what is involved in producing milk, including caring for the cows, the environment and how technology helps dairy farmers every day.

School Nutrition Professionals
MidwestDairy.com
Click on the School Nutrition Professionals link in the Resource Center or visit the Schools and Community tab. Check out the Cafeteria Promotion ideas to help promote your programs to students. The Food Safety section offers a milk quality checklist and cold milk fact sheet to help you ensure milk’s freshness and safety.

WHERE GOOD COMES FROM
DairyGood.org
On this site you will find stories reflecting the commitment of dairy farm families to healthy people, healthy communities and a healthy planet.

DAIRY MAKES SENSE
DairyMakesSense.com
This site is brought to you by Midwest Dairy Association, which represents more than 9,500 dairy farm families across 10 Midwestern states. It highlights the many reasons why dairy makes sense — from its nutritional and economic value to the stories behind the dairy farmers who produce wholesome, nutritious milk for you and your family to enjoy. Here you will find nutrition information, tips, stories about Midwest farm families and delicious dairy recipes.

MIDWEST DAIRY COUNCIL
MidwestDairy.com
Designed for educators, and nutrition and health professionals, this site is your one-stop shop for all things dairy. It includes dairy nutrition and educational resources about farming, videos and facts sheets. Find information on Fuel Up to Play 60, child nutrition, flavored milk and lactose intolerance. Meet the people behind the product, Midwest dairy farmers, and even schedule one as a speaker. Also get the latest dairy information, research and news.

In addition, stay connected with Midwest Dairy:
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• YouTube.com/MidwestDairy

QUICK, GOOD-FOR-YOU DAIRY SNACKS
Orange Cream Chiller
Servings: 2
Prep Time: 10 minutes
Ingredients:
• 3 ounces orange juice concentrate
• 1 cup low-fat milk
• 1/2 cup nonfat Greek-style plain yogurt
• 1 small frozen banana or 3 frozen strawberries
• 1 tsp. honey
• 1/2 tsp. vanilla extract

Preparation: Place all ingredients in a blender. Blend until smooth. Serve immediately or store in refrigerator.

Rainbow Fruit and Cheese Kabobs
Servings: 6
Prep Time: 10 minutes
Ingredients:
• 6 (8-inch or longer) straws
• 6 purple grapes
• 6 (3-inch) blueberries
• 3 cantaloupe cubes
• 3 pineapple cubes
• 1 kiwifruit, peeled and cut into 18 cubes
• 1/2 cup strawberry halves
• 1/2 cup cantaloupe, cut into 1/2-inch cubes
• 1/2 cup pineapple, cut into 1/2-inch cubes
• 1 small frozen banana or 3 frozen strawberries
• 3 ounces orange juice concentrate
• 1 cup low-fat milk
• 3 ounces orange juice concentrate
• 1 cup low-fat milk

Preparation: To make a rainbow for each “kabob,” thread onto a straw a piece of cheese, a strawberry half, a cantaloupe cube, a pineapple cube, another piece of cheese, a piece of kiwi, 2 blueberries, a grape and another piece of cheese. Repeat pattern with remaining straws.

USDA
Know Your Farmer, Know Your Food
USDA.gov
We know that demand for local and regional foods is strong, as people across the country are looking to connect with their food and those who grow and raise it.