

BRAIN FOOD

ESSENTIAL QUESTION

How does eating breakfast - and other wholesome foods - help our brains perform better during school?

DESCRIPTION OF UNIT

The SunnyBell video will review with students the importance of Brain Food. Collectively, students will discuss healthy eating options, the importance of dairy foods, and the MyPlate recommendations from the United States Department of Agriculture (USDA). To assess understanding, students will individually “fill up their own plates” with healthy foods.

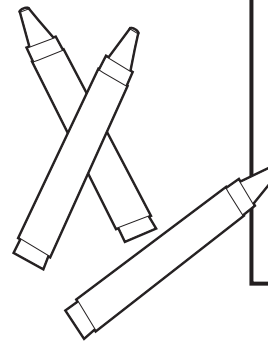
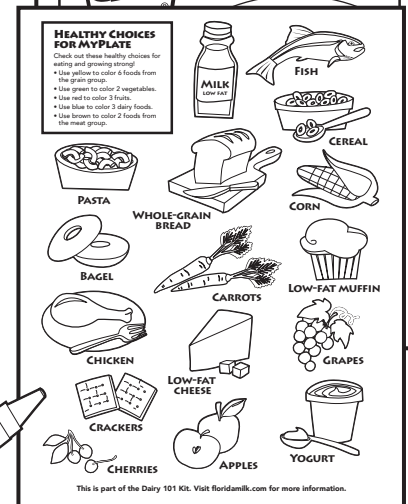
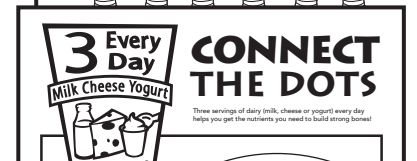
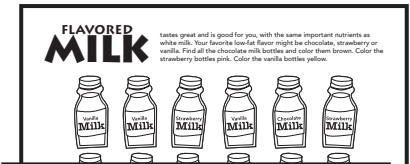
MATERIALS NEEDED

For initial lesson

1. Bulletin Board Builders – Brain and MyPlate
2. SunnyBell Presents: Breakfast is Brain Food video

For Extend and Enrich the Learning!

1. Paper plates – one per student
Healthy Choices for MyPlate learning sheet – one per student
Marker/crayons – one yellow, green, red, blue, brown, and black per student
Scissors
Glue sticks
- 2a. *Three Every Day learning sheet* – one per student
- 2b. *Flavored Milk/Yogurt learning sheet* – one per student
Crayons – to share
3. Dairy Science, *Determination of Fat Content in Milk lab*
Whole milk
Skim milk
Half-and-half or cream
Three shallow pans or bowls
Food coloring
4. Books – *The Dairy Group* by Helen Frost – grades K-3
Dairy by Honor Head – grades K-3
Milk and Dairy by Louise Spilsbury – grades 4-8



VOCABULARY

- Dairy – milk and foods made from milk
- Fats – an oily solid or liquid substance found in foods
- Grains – corn, wheat and rice
- Fruit – a food that grows on a bush or tree and is often sweet
- Protein – an important part of the human diet, usually found in milk products, meats, and beans
- Vegetable – a plant or portion of a plant that is eaten

LESSON

Get them excited! Begin by asking your students what they had for breakfast this morning? Was it delicious? Are they still full? Are they hungry? How does your belly being full help you learn?

Share the brain bulletin board builder. Discuss with students what food has to do with their brains? What does food have to do with learning?

This is part of the Dairy 101 Kit. Visit floridamilk.com for more information.

Introduce and Show the *SunnyBell Presents: Breakfast is Brain Food* video included on the resource CD or on youtube at http://www.youtube.com/watch?v=W_V9VBKupvc

Questions for Learning

Add your own great ideas to our list below!

1. What foods did SunnyBell say are great for breakfast? (Parfaits, smoothies)
2. How do we feel when we eat no breakfast?
3. How can drinking milk now help us make a healthy, lifelong habit?

Get everyone involved by asking students to touch their noses if they had cereal, yogurt, a parfait, or a smoothie for breakfast today. Add all of the students' results and show it as a classwide ratio (ex. 7/24 students had dairy today.)

Extend and enrich the learning!

1. In the video, SunnyBell mentions that eating foods from all of the food groups contributes to healthy brains and minds. Review the food groups (grain, vegetables, fruits, dairy, and protein.) Give each student a *Healthy Choices For My Plate* learning sheet and allow him or her to color the food items according to their food group. Students can then cut the foods out and glue them onto their own paper plates, following the MyPlate example. Hang the plates in the Media Center so all of the students in the school can see the benefits of a healthy plate and dairy!
- 2a. Remind students they need 3 dairy servings a day. Use the *Three Every Day* learning sheet as a reinforcement and reminder. (Educator assistance! The different milk jug is on the far left.)
- 2b. Did you know that flavored milk has the same great nutrients as white milk? Allow student to color the milk bottles while you discuss how milk can help muscles, teeth, and bones.
3. Explain that not all fats are bad for the body and that every one needs some fats. Brains, especially, need plenty of good fats. Ask the students if they would like to see how fat content varies between types of milk. Follow the *Determination of Fat Content in Milk lab* below to help students learn the part water and cream play in milk.

DETERMINATION OF FAT CONTENT IN MILK

Goal: To demonstrate that the amount/concentration of fat in milk.

Procedure

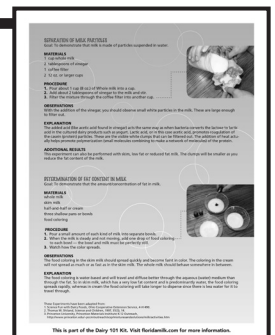
1. Pour a small amount of each kind of milk into separate bowls.
2. When the milk is steady and not moving, add one drop of food coloring to each bowl — the bowl and milk must be perfectly still.
3. Watch how the color spreads.

Observations

The food coloring in the skim milk should spread quickly and become faint in color. The coloring in the cream will not spread as much or as fast as in the skim milk. The whole milk should behave somewhere in between.

Explanation

The food coloring is water-based and will travel and diffuse better through the aqueous (water) medium than through the fat. So in skim milk, which has a very low fat content and is predominantly water, the food coloring spreads rapidly, whereas in cream the food coloring will take longer to disperse since there is less water for it to travel through.



4. Have these books on hand for especially interested students:

The Dairy Group by Helen Frost – grades K-3

Dairy by Honor Head – grades K-3

Milk and Dairy by Louise Spilsbury – grades 4-8

Check for Understanding and Wrap It Up!

Remind students that breakfast is brain food and that dairy is an important part of that. Review the components of a healthy plate and what it feels like when we eat well.