Calcium and Exercise Make Strong Bones

Objectives:
- Students will be able to name the number of times per day they need to drink milk or eat a calcium-rich dairy product.
- Students will be able to identify physical activities they can perform daily.

Materials Needed:
- Zip lock quart size freezer bags
- Bananas (1 for every 4 students)
- Frozen or fresh strawberries (2 per student) thawed
- Fat-free or 1% milk (1/2 cup per student)
- Cutting board and plastic knife
- 1 cup liquid measuring cup
- 8 oz. cups
- Plastic spoons
- Pictures of Power Panther and Slurp engaged in physical activity included in lesson:
  - Planting a tree
  - Walking up stairs
  - Walking a dog
  - Swimming
  - Riding a skateboard
  - Playing soccer
  - Slurp stretching
  - Slurp marching
- Paper bag to hold Power Panther figures

Review:
Ask students to name the food groups. (dairy, grains, protein, fruits, vegetables) Ask students to name the food group that has foods that contain calcium. (dairy)

Activity:
1. Explain that Power Panther has some messages for them today about growing strong bones. His first message is to play hard every day to build strong bones. Ask if they would like to find out all the things Power Panther does to play hard. Have children pull one figure at a time from the bag and discuss how many of them do this activity. After all of the figures have been drawn, ask them what other things they do that Power Panther could do to play hard. (playing baseball, playing basketball, riding a bike, riding a scooter, washing a car, playing catch, juggling, running at recess, etc.)

2. Explain that Power Panther has a nephew named Slurp. (Show pictures of Slurp) Power Panther wants his nephew to grow strong bones so they play together every day, and Power Panther makes sure that Slurp gets calcium from milk or milk products for his bones every day. Ask what dairy foods Slurp could eat or drink to get calcium for strong bones. (White milk, chocolate milk, strawberry-flavored milk, low-fat yogurt, string cheese, cheese pizza, yogurt parfait, smoothie, etc.) Explain that older students (age nine and over) need at least three cups of milk or dairy products every day, while younger students (age eight and younger) need at least two and a half cups of milk or dairy products everyday.

3. Explain that you are going to make one of Slurp’s favorite snacks, a fruity smoothie that is made with low-fat (1%) or fat-free milk. Have students in groups of four take a zip lock quart bag and add strawberries and a peeled banana. Demonstrate how to work the air out of the bag and how to zip the bag shut. Have students mash the fruits together in the bag.

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4. Pour ½ cup milk into glasses. Have students move the fruit away from one corner of the bag and cut off that corner. Have students squeeze their fruit into the cup of milk and stir together with a spoon. Enjoy the smoothies while you do the Reflect and Apply portion of the lesson.

Reflect:
Ask the children what they learned about calcium and physical activity. Be sure the conversation includes drinking milk or eating calcium-rich dairy products and playing hard each day.

Apply:
1. Ask each child to identify something Power Panther is doing (from the pictures) that they can do when they get home today.
2. Ask the students what other fruits could be used to make a fruity smoothie.

Extend the Activity:
Language Arts/Reading: Read the book *Rodeo Ron and His Milkshake Cows* by Rowan Clifford to students. Explain to the students that milk shakes have added sugar. It is best to choose low-fat or skim milk most often. For a sweet treat, encourage students to try Slurp’s Favorite Fruity Smoothies. Ask students what it would be like if nobody in our school or town drank milk and only drank sugary drinks like soda.

Math: Use measuring cups and spoons, as a class measure out how many ½ cups equals 1 cup. How many ¼ cups would equal 1 cup and so on.

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**Slurp’s Favorite Fruity Smoothie Recipe**

**Ingredients:** Yield: 4 servings
1 banana
1 cup frozen or 8 fresh strawberries
2 cups fat-free or 1% milk

**Directions:**
1. Peel the banana.
2. Place the banana and two strawberries in the zip lock bag. Squeeze out the air and zip the bag shut.
3. Mash the fruits together by squeezing the bag with hands.
4. Move the fruit away from one corner of the bag.
5. Cut a corner off the bag.
6. Squeeze the fruit into the milk and stir it with a spoon.
7. Drink and enjoy!
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