

Lesson 4 : Fruit and Milk Fun

45 - 60 minutes Two whole group activities

A second adult would be helpful today

This lesson requires preparation in
advance

Activity Overview:

Students will learn about the fruit group and the milk group in this lesson. Students will conduct a taste test of juice being diluted with water in varying percentages. Following the "Fruit Juice Fun" activity, students will participate in a story activity similar to "Mad Libs" in order to learn about the milk group.

Objectives: Students will be able to:

- *Identify foods that are part of the fruit group.
- * Identify foods that are part of the milk group.
- *Measure ingredients using a tablespoon.
- * Introduce the concept of percentage.
- * Students will have the opportunity to express their opinions related to how juice tastes after being diluted with water.
- * Reinforce grammar skills.

Materials and Preparation: See page 2

Lesson Plan: See pages 3-7

Third Grade Science Docent Lesson 4

Materials and Preparation:

- 1) Laminated character name cards and board magnets -These were also used in lesson 1 (located in hanging file box)
- 2) 20 laminated copies of Five Food Group Dragon mini poster- collect at the end of the lesson (located in hanging file box)
- 3) 20 copies of worksheet "Fruit Juice Fun." Students will be able to take this home after the lesson. (located in hanging file box)
- 4) Plastic food models.
- 5) One copy (for each classroom) of story to read out loud: "The Day the Milk Group Disappeared" You will write on the story form (located in hanging file box)
- 6) 20 small Dixie cups- one per child. Throw away when finished (on cart)
- 7) 20 plastic stir sticks - one per child. Throw away when finished (on cart)
- 8) 10 tablespoons- one per pair of students (on cart)
These will need to be washed at the end of the lesson.
- 9) 20 measuring cups. 10 will be used for the juice and 10 will be for the water. Students will share these. Hopefully the spouts on the measuring cups will make pouring a little less hazardous!
- 10) One gallon of orange juice provided by classroom docent (make sure that your receipt has no other purchases on it and submit it to the PTC treasurer for reimbursement.)**
- 11) 2 plastic pitchers. One pitcher will be used to make pouring water easier into the measuring cups. The second will be a pitcher that can be taken around to "dump" extra liquid that either kids aren't finishing or aren't tasting.
- 12) Dish soap for clean up (on cart)
- 13) "What is a Percentage?" chart (on cart)
- 14) Dragon body parts: The red circle will be represent the Fruit Group and the blue circle will represent the Milk Group: one per class (in hanging file box) Classroom teacher will provide a small bulletin board area in which to display the dragon head and attach the last body part.

Lesson Plan: Lesson 4

Review:

Pull out some food group models and hold them up. Call on volunteers to tell you the name of the food and the food group it belongs to.

1. *Today we are going to learn about the Fruit Group and the Milk Group..*

**Which member of the Royal Food Family stands for the Fruit Group?*

Queen Anna Banana

**Why is she a good character to teach about the Fruit Group?*

Because a banana is in the Fruit Group.

** Can you think of some fruits that you enjoy eating? Accept all reasonable answers*

** Which character represents the Milk Group?*

Sir Milkford

Pass out the Dragon Food Group mini poster. Have students tell you some foods that belong to the Milk Group and the Fruit Group. Collect so they are out of the way for the next activity.

3. *Today we'll start with Fruit Group. I'm going to read some facts about the Fruit Group and then we'll do an experiment. Read the following:*

Facts About the Fruit Group

Foods from the Fruit Group help your body heal cuts and bruises. Your skin protects your body from germs, so you need to keep your skin healthy. Fruit and fruit juices provide important amounts of vitamins A and C, potassium, and fiber. Fruit and fruit juices are low in fat and contain very little sodium (salt). Children your age should have at least 3 servings a day of fruit.

4. *I am going to pass out a worksheet to you called, "Fruit Juice Fun" We will read the directions together. Read the directions together. You may have a student ask "What does percentage mean?" You can explain a percentage is like a fraction. A chart that shows different percentages is on the cart. Even if you don't have a child ask, you may want to show the chart.*

5. Demonstrate how you are going to do this activity before you pass out any materials.

6. *I am going to demonstrate how we'll do this activity before I pass out the materials so watch and listen carefully. We will be measuring different amounts of juice and water, observing the liquid and then tasting it. Next, we'll write about it and then we'll do the procedure again. We'll be going step by step together so you'll need to make sure you keep up.*

7. Go through the following steps. You'll demonstrate the 10% juice so they get the idea.

** First we will try juice that is 10% juice. The chart on your worksheet shows us we need one tablespoon of orange juice. We will carefully measure one tablespoon of orange juice from the measuring cup and pour it into our Dixie cup.*

**Next, we'll measure 9 tablespoons of water and pour that into the Dixie cup.*

** Gently stir the liquids together with your stir stick.*

** Before we taste it we want to observe the mixture and record it on our worksheet where it says, "10% juice looks _____."*

Brainstorm some things together that could be written down.

** Now, let's taste the mixture and record how it tastes. Again, brainstorm some ideas together and then have them write.*

If needed do the guided steps together for the 25%, 50%, and 100% juice mixtures. Otherwise let the students continue the steps on their own as you walk around and monitor.

Remember to only give a sample to students that want to try, and also only to those students that have returned their permission to taste. If you have a child that is allergic, doesn't like orange juice, or hasn't returned their permission to taste form, they may still do the activity omitting the tasting. The child could still write their observations about how the juice looks.

Once the students have finished the measuring/observing/tasting section, move on to the last three questions on the worksheet. Discuss and allow students a few moments to write their responses. *** Question #3 Sugar would be the response you are looking for.**

8. Take a couple of minutes to pick up all items before going on to the Milk Group activity. Students will take home their "Fruit Juice Fun" worksheet.

*Make sure that the liquids are poured in the sink before throwing the cups away.

*Stir sticks can be thrown away.

*Please wash and dry the measuring cups, measuring spoons, and pitchers before placing them back on the cart. This can be done at the end of the lesson or if you have an adult helper they can do this while the Milk Group activity is going on. Dish soap and paper towels are on the cart.

9. We are going to finish up today learning about the Milk Group. The Milk Group helps your body produce strong bones and teeth. Milk products provide your body with protein, vitamins, and minerals. One very important mineral found in milk products is calcium. Calcium is what makes your bones strong and healthy. A child your age should have at least 3 servings from the Milk Group each day.

Take a moment to ask if anyone has had something to eat or drink from the Milk Group today. Items might include milk on their cereal, a yogurt at snack time, cheese on their sandwich, etc.

10. You are going to help me finish writing a story today called, "The Day the Milk Group Disappeared." I am going to ask for words for our story, and when I have all the blanks filled in I will read the story out loud to you.

First, I need a noun. Call on a student for an idea and fill in the space on your paper. Don't read the story portion until the very end. It will be a little silly. Go through each item and when all the blanks are filled in read the story out loud to the class.

Next, I need an adjective. If students don't know what an adjective is tell them an adjective tells about a noun. For example if I need an adjective to tell about a dog I might say shaggy or black.

Continue until all the blanks are filled in and then read the story. If there is time you may do it again, but twice is plenty! Just reuse the same story page and cross out the suggestions from the first round.

11. Closure

Let's add our next 2 circles to the class dragon. The red circle will stand for the Fruit Group and the blue circle will stand for the Milk Group. A child ages 7-10 should have at least three servings a day from the Fruit Group and at least three servings a day from the Milk Group.

12. Questions and clean up.



Name _____ Date _____

Fruit Juice Fun

Directions: Make your own orange juice using different percentages of juice and water. Mix the orange juice with water according to the percentages below. Taste each one. Write a description of how it looks and tastes. Then answer the questions.



10% juice	1 tbsp orange juice	9 tbsp water
25% juice	1 tbsp orange juice	3 tbsp water
50% juice	1 tbsp orange juice	1 tbsp water
100% juice	all orange juice (2 tbsp) no water	

10% juice
 looks _____
 tastes _____

25% juice
 looks _____
 tastes _____

50% juice
 looks _____
 tastes _____

100% juice
 looks _____
 tastes _____

Answer the following questions.

1. Which juice did you like best? Why? _____
2. How did the juices change with less water? _____
3. In juices that are less than 100 percent juice, what other ingredient might be in them? _____