

Purpose: Students discuss the value of fruits in a healthy diet and identify and use patterns to represent mathematical situations and sort objects according to common attributes. Students are also exposed to fruit production in Minnesota.

Time: 45 minutes

Level: K

Materials:

- Assorted fresh fruit
- “Fruit Counters,” Unifix Cubes, “Runs” Candy or similar counting items (see Resources)
- Construction paper
- Geometric shape stickers



Fruity Counters

Minnesota Science Standards and Benchmarks

0.2.1.1.1 Sort objects in terms of color, size, shape and communicate reasoning for the sorting system

Minnesota Math Standards and Benchmarks

K.2.1.1 Identify, create, complete and extend simple patterns using shape, color, size, number, sounds and movements.

K.3.1.2 Sort objects using characteristics such as shape, size, color and thickness.

K.3.1.1 Use basic shapes and special reasoning to model objects in the real-world

Minnesota Health Education Standards and Benchmarks

0.1.1 Students will comprehend concepts related to health promotion and disease prevention to enhance health

0.5.1 Students will demonstrate the ability to use decision-making skills to enhance health.

Background

The USDA identifies many health benefits earned by eating fruits. Eating a diet rich in fruits and vegetables as part of an overall healthy diet may:

- Reduce the risk for heart disease including heart attack and stroke.
- Protect against certain types of cancers
- Fruits high in potassium may lower blood pressure and reduce the risk of developing kidney stones
- Fruits high in fiber may reduce the risk of heart disease, obesity and type 2 diabetes.

The USDA also identifies many nutritional benefits from fruits.

- Most fruits are naturally low in fat, sodium, and calories. None have cholesterol.
- Fruits are sources of many essential nutrients that are under consumed, including potassium, dietary fiber, vitamin C and folate (folic acid).
- Vitamin C is important for growth and repair of all body tissues, helps heal cuts and wounds, and keeps teeth and gums healthy.

Information from http://www.choosemyplate.gov/foodgroups/fruits_why.html

This activity will help students understand healthy food choices and also help them group objects that are similar in one attribute. Students will also show understanding of patterns and create a pattern using real objects.

Procedure

1. Display a large bowl or jar containing a variety of fresh fruits.
2. Ask students to identify what the bowl contains – write the names of the fruit on the board as the students list them to you.
3. Use the following questions to discuss the benefits of eating fruit:
 - a. Would you choose to eat one of these items or a candy bar? Why?
 - b. Why should you eat fruits in every meal?

4. Use the following questions to discuss the role of MN agriculture in fruit availability.
 - a. Which fruits do you think are grown in Minnesota? (Apples, blueberries, strawberries)
 - b. What do Minnesota farmers have to do so we can enjoy these fruits? (grow trees or shrubs, provide fertilizers and other nutrients to the plants, keep insects and other pests away, make sure the plants get lots of water and sunlight, pick the fruits, wash them)
 - c. When do you think these fruits are ready for harvest so they can be picked and we can eat them? *Reference “A Seasonal Look at Fresh Produce” from Minnesota Grown*
<http://www.mda.state.mn.us/~media/Files/food/minnesotagrown/producecalendar.ashx>
Strawberries (June, July), Blueberries (July, August), Apples (August –October)
5. Explain to the students that before we eat the fruits we are going to have some fun talking about shapes and sorting. Ask students:
 - a. What shapes do you see in the fruit bowl? Students will respond with: apples are round, strawberries look triangular, etc.
6. Have a volunteer(s) come and sort your bowl into “shape groups”. Explain to the students that you will assign partners and each group will be given some fruit to sort. Each pair can decide how they want to sort the fruit – they can choose color, shape, size or anything else they can think of.
7. Pass out fresh fruit if you have an adequate amount for every group. Otherwise the “fruit counters” or Runt’s candy can be used. Students will sort the fruit. After all groups are done sorting, ask each group to explain how they sorted their fruit.
8. Ask the students to make a pattern using the fruits – once again have students work in pairs and create a pattern of their own design – ideas are by color, size, type of fruit, etc. Have students record the pattern so they can remember it by using stickers on a piece of construction paper.
9. Have each pair of students share the pattern with the class by having them tell what their pattern is by name such as color (yellow, green, green), alphabet letter, (ABAB) or name the fruit (banana, strawberry, banana, strawberry)
10. Have students thoroughly wash their hands and also thoroughly wash the fruit.
11. Eat the fruit and enjoy a delicious snack!

Additional Activities

- Have the students sort the fruit in another way not previously demonstrated.
- Have the students make a list of foods that are red, yellow, green ,etc.
- Create a writing prompt such as “I like _____ because _____”. Have students write and draw a picture.

Resources

- USDA MyPlate website for nutrition information and healthy eating
<http://www.choosemyplate.gov/>
- Minnesota's From Farm to Table website with information on Minnesota fruits and other locally grown foods
<http://www.mda.state.mn.us/food.aspx>
- Fruit counters, Unifix cubes, geometric shape stickers and other counting items are available for purchase from
<http://www.classroomdirect.com>

Adapted from Utah Agriculture in the Classroom

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