



Comparing Apples and Oranges

Classifying Fruits by Appearance and Weight

National Standard > Mathematics

Numbers, Number Sense, and Operations

- Recognize, classify, compare and order whole numbers.

Kentucky Standard > Mathematics

Measurement

- Select appropriate units for measuring weight.
 - Customary
 - Metric

Ohio Mathematics > Patterns, Functions and Algebra Standard

- Sort, classify and order objects by size, number and other properties and describe their attributes.

Objective

Students will compare and contrast several different kinds of seeds from various kinds of fruits.

Students will classify different fruits measuring appearance and weight.

Materials

- A variety of different fruits
- Scale
- Balance
- Graph paper
- Chalk board / white board

Vocabulary

- Classify
- Compare
- Sort
- Order
- Customary
- Metric
- Weight
- Mass

Activity

Teacher will:

- Discuss the end of the play James and the Giant Peach and bring up the idea that the pit of the peach is the seed that would grow a new peach tree plant.
- Ask students if all fruits have the same kind of seeds and the same amount of seeds.
- Present a variety of different fruits to the class. Have students describe the fruits one at a time.

- Ask the students to organize or classify the fruits into color groups. (i.e. lemons and oranges in one group, cherries and apples in another group, etc.)
- Ask the students if there is any other way that they can be classified.
- Try to classify fruits based on suggested characteristics.
- If no one makes the suggestion, offer the idea of classifying by weight.
- Have students work together to classify the fruits by weight without measuring the fruits.
- Record the classification groups.
- Have students actually weigh or mass the fruits and classify them again. (The teacher may have to give specifications for grouping i.e. all fruit under two pounds in one group, while all fruit 2 pounds or above is in another group.)
- If possible use a balance to show mass and a scale to show weight to show students that there is a difference between the two measurements.
- Compare the new classification groups to the old groups.
- Ask students to predict the number of seeds in each fruit.
- Record the predictions.
- Cut open the fruits and have students find and count each seed.
- Record the number of seeds in each fruit.
- Have students order the fruits from the smallest amount of seeds to the largest amount of seeds.
- Now ask students if there are ways that the seeds can be classified into groups.
- Try to classify seeds based on students' suggestions. (i.e. encourage size, shape, texture, etc.)

Performance Assessment

Teacher will:

- Have students make a pictograph, using the seeds from the fruit, to show the number of seeds that were in each fruit.
- Use graph paper with large enough squares so that each seed can fit inside one of the squares. (Seeds can be placed in order from largest to smallest amount of seeds, smallest to largest amount of seeds, smallest to largest seeds, largest to smallest seeds, etc.)