

Rename Fruits, Vegetables and Spices Written by GEF Staff

Grades: PreK-2 Subjects: Science, Math Time: 30 minutes





Science Standard 7: Understands biological evolution and the diversity of life. Benchmark # 2: Know that there are similarities and differences in the appearance and behavior of plants and animals.

Science Standard 8: Understand the property and structure of matter. Benchmark # 1: Knows that different objects are made up of many different types of materials and have many different observable properties (e.g., color, shape, size, height).

Science Standard 10: Understand force and motion.

Benchmark # 3: Know that the position of an object can be described by locating it relative to another object or the background (e.g., plants grow below ground, on the ground, or above the ground).

Science Standard 12: Understand the nature of scientific inquiry.

Benchmark # 1: Use the senses to make observations about living things, non-living things and events. **Benchmark # 2:** Record information collected about the physical world (e.g., in drawings, simple data charts.)

Mathematics Standard 2: Understand and apply basic and advanced properties of the concepts of numbers.

Benchmark # 1: Understand that numerals are symbols used to represent quantities or attributes of real - world objects.

Benchmark # 2: Count whole numbers.

Benchmark # 3: Understand symbolic, concrete, and pictorial representations of numbers (e.g., written numerals, objects in sets, number lines).

Mathematics Standard 6: Understand and apply the basic and advanced concepts of statistics and data analysis.

Benchmark # 1: Collect and represent information about objects or events in simple graphs and charts. **Benchmark # 2:** Understand that one can find out about a group of things by studying just a few of them.

Objectives: Students will be able to...

- Classify plants according to observable features (size, color, shape).
- Describe the position of a fruit or vegetable based on its location relative to the ground.
- Use the attributes of fruits, vegetables and edible seeds to describe them (e.g., create new names).
- Collect, organize and classify data using a variety of graphic representations.

- Interpret and analyze the data represented in simple graphic representations.

Please click here to view both the creative artwork for this great lesson and the downloadable PDF.



Materials:

- Chart paper
- Poster marker
- Number line and markers
- "Renaming Fruits, Vegetables and Seeds" worksheet (provided below)
- Broccoli for the whole class
- Samples of each fruit, vegetable and seed to be studied



Overview: Anyone who has ever been a parent knows what a chore it can be to get children to eat their vegetables, but now there is hope. A recent study out of Cornell University suggests that children are likely to eat more vegetables if the vegetables are given catchy names. According to the study conducted by Brain Wansick, labeling vegetables with names, such as peas and broccoli is rather boring, but give them nifty names, such as "power peas" or "dinosaur broccoli trees" and children will gobble them up. Interestingly enough, fruits, vegetables, and other edible plants have often been given nicknames throughout the ages.

Carrots are root vegetables, which means they grow beneath the ground. Most carrots are shaped long, straight and thin, and have been labeled by some as "little fingers". While they come in many colors, including white, yellow, purple and violet, the most common color today is orange. Carrots are valued for their health benefits, as they are rich in minerals and A, C and B complex vitamins. Broccoli is a green vegetable that grows above ground and is shaped like bunches of "little trees". It is considered the "Superhero of the Vegetable Kingdom" rich in vitamin A and calcium. First introduced in the US by Thomas Jefferson nearly 200 years ago, it wasn't until 1922, when Stephano D'Arrigo started his own broccoli business, that it became a popular vegetable at the dinner table. D'Arrigo's broccoli went by the brand name "Andy Boy" in honor of his two year old son. Apples, also known as the "King of Fruit", have been cultivated and eaten in countries all over the world. There is archeological evidence indicating that apples were part of the human diet as early as 6,500 BC. Red, green and yellow, apples grow on trees, come in many varieties and are prized for being both healthy and nutritious. Eggplant, also know as eggfruit, are actually fruits even though they are usually eaten as vegetables. Grown above ground these plants grow two to four feet tall and come in a variety of colors, including black, green, white, yellow, orange, red, or the one we most commonly see in the US, the purple, oval shaped eggplant. There are also plants that we use to add flavor to our food. These are herbs and spices. Dill is a common herb and its seed considered a spice. A dill plant has featherlike leaves and delicate yellow flower heads that sit atop a two-foot stem. The leaves and seeds can be dried and used to season soups and pickles. There are also flowers and parts of flowers that are edible. The sunflower is one example. Sunflower plants are used for a variety of purposes all over the world. Valued for their nutrition the seeds and oils are used in cooking, snack foods and for medicinal purposes. They are an excellent source of protein and contain significant quantities of B vitamins, vitamins A and E, calcium, and other important minerals. These daisylike flowers, of which some varieties can grow up to 20 feet tall, come in shades of cream, rust and burgundy reds, but are traditionally yellow in color. Native Americans referred to these special flowers as "yellow eyes".

Kid's Speak: Fruits, vegetables, seeds you can eat, even some flowers are used to cook with and make as food. Some we may like to eat and some we may not like to eat. That depends on our own special tastes. Some of these plants grow above ground on stems, stalks, bushes, vines or trees, and some grow underground and need to be pulled up out of the soil when they are ready to be eaten. They come in all shapes, sizes and colors. Some even have funny nicknames. Which would you like to eat, broccoli or the "Superhero of the Vegetable Kingdom"?

Eco-Fact: The most common color of carrots many years ago was not orange as it is today, but purple.

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Procedures:

Before Renaming Fruit, Vegetables and Seeds:

- Ask students where fruits, vegetables and seeds come from? Explain that fruits and vegetables grow in the garden, on a farm, in an orchard, etc. Some grow under the ground, some grow on the ground and some grow above ground on stems, stalks, bushes, vines, and trees. Ask students if they know what colors, shapes and sizes fruits, vegetables and flowers are? Allow them to randomly give you suggestions of each, without regard to specific plants- just general information. Help students understand that they already know a lot about fruits and vegetables, and maybe even herbs, spices, flowers and seeds. Explain that one way that helps people when they know a lot of information about a subject is to organize that information in a chart.

- Create a data chart using the categories mentioned above. Display a class size chart similar to the sample provided, with only the headings and plants recorded. Place the food samples out where they can be seen by students and identify each sample. Ask students if they can help you to fill in the chart and see how much the class already knows about the plants selected. Use the information in the overview to help complete the chart.

- Once the chart is complete point out to students that it is easier to discuss information, in this case about fruits, vegetables and seeds, when the information is neatly organized.

Instructions for Renaming Fruits, Vegetables and Seeds:

1. Ask students if they like to eat vegetables. Some will say yes, others will say no, and some may be undecided. Display a number line that represents the number of students in the class. Ask students to raise their hands if they want to try some broccoli. Count the number of students. Starting at zero, count aloud to the number that shows how many students in class want to try broccoli. Place a marker on this numeral. Now ask students how many want to try the "Superhero of the Vegetable Kingdom". Count the number of students and again using the number line and starting from zero, count aloud to the number of students that want to try that vegetable, and place a marker on it. How many more students wanted to try the "Superhero" than the broccoli? Use the number line again and count from the first marker to the second marker, find the difference. Why do students think more children wanted to eat the "Superhero" than the broccoli? (Or if it turned out that the broccoli won the contest, then ask about that.)

2. Bring out the vegetable and explain to students that it has two names, one is the most common and the other is a nickname given to it because it is such a healthy vegetable to eat. Allow any students who want to try the broccoli, and have no food allergies to it, to taste it. Ask those who taste it what they think of it. Do they still want to call it a "Superhero"? What else might they want to call it?

3. Tell students that they are going to have a chance to rename the fruits, vegetables, and seeds. They can look at the class chart for ideas about the plants that may help them in the renaming process. Distribute the worksheet or use one of the suggestions in the Adaptations section of this lesson.

After Renaming Fruit, Vegetables and Seeds:

- Once the students have generated new names for the foods have them share their names with the class. List each fruit, vegetable and seed on the board. Beneath each write the children's suggestions for the new names. Vote on the class favorite for each food. Re-label the class chart with the class' new name choice.

Adaptations:

- For young students, create a worksheet with only pictures and a line for them to write the new names of the foods.

- For non-writing students, create a column on the class chart and brainstorm with students their ideas for new names of each food (e.g., carrots may become "orange torpedoes," "Lincoln Logs," etc.).

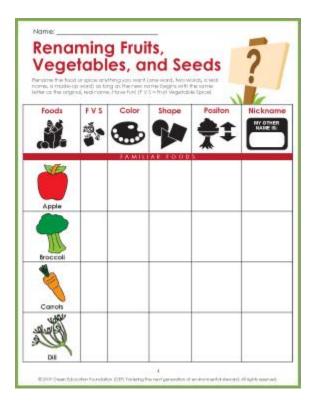


Extensions:

- Add other fruits, vegetables and edible seeds to the class chart and continue to fill in the categories for each new addition. Have students look for similarities and differences among the foods. Select two foods to compare and show students how to create a Venn Diagram to organize and illustrate the similarities and difference between the two foods.

- Create a shopping list for parents with both the traditional name and the child-created names.

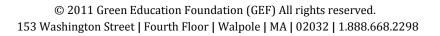
GEF Community: Join the GEF Community on-line. Share your new fruit, vegetable and edible seed names with other GEF Community students.



To view full-size lesson plan and print, follow these directions: 1. Click on the image above 2. Click on the small "print" icon at the top left of the lesson 3. Make sure your "Page Scaling" is set to "Fit to Printable Area" 4. Click "OK" and your lesson will be printed!

Click on the second icon from the print button to save your lesson to your computer. For technical assistance with printing any of the GEF lessons, please contact: <u>JCogswell@greeneducationfoundation.org</u>

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