

Comparative Tastings

Overview

Comparative taste tests provide an engaging, multi-sensory opportunity to encourage young people to try new fruits and vegetables. By asking for students' opinions, we demonstrate interest in and respect for their preferences. Students, in return, will often become less reluctant to try something new when given the opportunity to weigh in with an opinion. Some schools conduct voting booths at Health Fairs, with each visitor voting for their favorite variety of winter squash, for example. Other schools use students' responses to comparative taste tests to determine school lunch menu items. Whatever the scale or purpose of your taste test, this is a tried-and-true method for inspiring curiosity and courage to try new things.

Demonstration Lesson

"Rate the Taste" from Champions for Change Children's Power Play! Campaign's "4th Grade School Idea and Resource Kit," pages 57-64.

Logistics

Time required: 50 minutes

Location: Indoor or outdoor

*Materials List**

- Hand soap
- 1 copy of the "Rate the Taste" worksheet for each student (available in English and Spanish)
- Taste testing supplies, such as serving container (two 4-ounce cups or plates per student), napkins, tasting forks and/or spoons
- Cup of water for each student
- Cleaning supplies, such as sponges, detergent, etc.
- A variety of fruits and vegetables for tasting
- Thesaurus

**(Summarized from the Demonstration Lesson. Refer to the original for a complete materials list.)*

Free online lessons about Comparative Tastings

Grow It, Try It, Like It! Preschool Fun with Fruits and Vegetables, “Growing Great Tasters: Strategies for Food Tasting” pages 17 and 44. This preschool guide offers tips to increase the positive impact of taste tests with preschoolers and a guide for teaching preschoolers to be polite when they do not want to finish something they have tried.

<http://teammnutrition.usda.gov/Resources/growit.html>

Harvest of the Month On the Harvest of the Month website, you can find comparative tasting suggestions, background information, recipes, and other classroom and home activity ideas for each of 36 different fruits and vegetables, organized by the seasons in which each crop is available.

<http://www.harvestofthemoth.cdpd.ca.gov>

Cooking with Kids, Inc., “Free Tasting Lessons.” This bilingual resource includes downloadable tasting activity guides for apples, citrus, dried fruit, grapes and raisins, melons, peas, pears, root vegetables, salads, and tomatoes. Each crop includes a unique guide for Grades K-1, 2-3, and 4-6.

<http://cookingwithkids.net>

Cornell’s Seed to Salad Project, “Seed to Salad: Variety Taste Test.” This activity includes an open-ended taste test chart, in which students create a scale, such as “Yum to Ick.”

<http://blogs.cornell.edu/garden/get-activities/signature-projects/seed-to-salad>

Harvesting Health, “You Be the Food Critic: Fifth Grade – School Ideas and Resource Kit,” Appendix 7, page 57. This guide includes a list of fruit and vegetable options that work well for taste test, a lesson write up for conducting a taste test, and a visual handout for students in both English and Spanish.

<http://www.northcoastnutrition.org/garden-based-nutrition-education>

The Great Garden Detective Adventure, “Use Your Five Senses,” page 17. This lesson connects taste testing with an overview of the six plant parts. It includes a Garden Detectives’ Tasting Code with tips for polite taste testing. It also includes a handout that asks students to use each of their five senses when exploring and describing their fruit or vegetable.

Coming soon from Team Nutrition, <http://www.fns.usda.gov/tn/>

Life Lab’s **Plant It, Grow It, Eat It!** workshop series, “Taste the Difference” lesson. This comparative tasting activity combines a nutrition tasting and descriptive language with music and performing arts. Students use the words they brainstormed to create skits for the class.

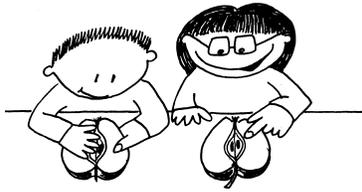
<http://www.lifelab.org/pigiei/#tastetest>

Free online resources that support teaching about Comparative Tastings

Kids Cook Farm Fresh Food, “Comparative Tasting Format,” page xviii. This provides a comprehensive overview of the objectives, materials, preparation, safety precautions, and steps for running an effective taste test. In this sample, the students themselves cut the produce, a method that can work well in upper elementary, middle, or high school. <http://www.cde.ca.gov/ls/nu/he/documents/kidscookcomplete.pdf>

Food for Thought

- Can you see doing these lessons with your students?
- How might you modify it to fit your student population?
- How might this connect with other subjects you teach?
- How might you further connect these activities to the garden? To edible activities? To nutrition?



Taste the Difference

Description:

Students use all of their senses to identify subtle differences between four varieties of the same fruit or vegetable. They then describe each sample, and finally work together to perform a poem or other creative presentation for the class.

Materials:

- Hand soap
- 4 varieties of apples, such as Golden Delicious, Fuji, Granny Smith, and Mutsu.
There should be enough produce for each student to have a sample of each variety. (Tip: This activity also works with other fruits or vegetables)
- 1 large kitchen knife (for the teacher) or 4 apple corers (for students)
- 4 cutting boards
- 4 paper lunch bags
- 120 slips of scrap paper
- 4 large pieces of chart or construction paper
- Toothpicks
- *Optional:* Bell
- *Optional:* Percussion instruments

Preparation:

1. Wash and prepare all apples for sampling. For older students, you can just place all of the washed apples of one variety onto a cutting board with an apple corer. For younger students, wash and slice each apple into enough samples for each student. Then place each variety onto a separate cutting board, and place toothpicks into each slice for easy handling.
2. Create four labels, one for each apple variety.
3. Set up four stations in the classroom or outdoors. At each station place one cutting board with samples of one apple variety, a label stating the variety name, one lunch bag, 30 strips of scrap paper, four pencils, and one large sheet of paper. Make sure it is easy for a quarter of the class to gather around one station at a time.
4. Place hand soap near sink.

Class Discussion:

Look at this apple. Which senses can you use to learn more about it? Sight? Smell? Touch? Taste? What are some words you could use to describe an apple? Create a word bank with their answers and post it somewhere they can look during the taste test to get ideas. In

this lesson there are four stations with four different types of apples; you will spend a few minutes at each station. If relevant at this point, demonstrate how to use an apple corer. Each of you will examine very closely one slice of apple at each station. Be sure to notice the colors on the inside and outside and the smell. Then taste your apple slice, and notice the flavor and texture (that's the way it feels) inside your mouth. Finally, each of you will choose a word to describe the apple at the station, write the word on a strip of paper, and put the paper in the lunch bag. Demonstrate the process. When you hear me ring this bell, rotate clockwise to the next station. Again, demonstrate.

Action:

1. Discuss or review safe food handling. Highlight and demonstrate how to wash hands thoroughly and how to take a sample without touching any of the other samples on the plate.
2. Have all students wash their hands.
3. Divide the class into four groups. Each group will spend a few minutes at each apple station, exploring and tasting each sample. Suggest that they use all of their senses to observe what makes that apple variety unique.
4. At each station, ask each student to write on a strip of paper one descriptive word about the sample and place it in the bag.
5. After the groups have been to all stations, have them return to the station where they started and open the bag of words. Have each group use all the words to compose a poem about that apple variety. Ask them to copy it onto the large sheet of paper. Each word must be used once; if the same word appears three times, it must be used three times. Encourage creativity; students can act out their poem, turn it into a song, or even choreograph it as a dance. They can choose the order of the words, the rhythm, and whether or not to include gestures, percussion instruments, audience participation, or hand clapping. Have the students title their poems.
6. Have each group present their poem to the class. After each one, the class can try to guess which apple variety that group had.
7. Post the poems and attach the apple variety name to each one.

Digging Deeper:

Which apple was the most sweet? Tart? Crunchy? Juicy? Compare two apples that seemed very different from each other. Compare the two apples that seemed the most similar.

In the fall, visit an apple orchard to see apples growing on trees, or visit a farmers' market to meet an apple farmer and taste even more varieties of apples.

California Health Standards:

- 7.1.N. Select nutritious snacks.
- 1.6.G. Name and describe the five sense.
- 1.6.N. Describe how to keep food safe from harmful germs.

LEARNING OBJECTIVES

After completing this activity, students will be able to:

- Identify characteristics of fruits and vegetables that they find appealing.
- Name at least one fruit or vegetable that they would like to eat again in the future.
- Use adjectives to describe the characteristics of at least 3 fruits and vegetables.

LINKS TO CONTENT STANDARDS

- Word Analysis, Fluency and Systematic Vocabulary Development 1.0
- Writing Applications (Genres and Their Characteristics) 2.0
- Nutrition and Physical Activity 1.0, 4.0, 7.0

READY

Students sample an array of fruits and/or vegetables, one at a time, using safe food handling techniques. After each sample is tasted, each student rates the food and then uses adjectives to describe the food. Lastly, students write a one-paragraph description of the fruit or vegetable they liked best using the adjectives that they used to describe it.

SET

- Review the Activity Notes.
- Review Rate the Taste, Worksheet 7.
- Prepare fruits and vegetables for tasting by peeling and cutting into bite-sized pieces close to serving time, so that they stay fresh. Follow Safe Food Handling Techniques (see Activity Notes). You may want to work with your school food service department to prepare the samples for tasting.
- If students are tasting both fruits and vegetables, prepare one cup or plate of vegetables and one cup or plate of fruits for each student.
- Have cups and water available for students to drink while tasting.
- Be sure students have access to soap, water, and paper towels to wash their hands before eating. As an alternative, provide each student with a cleansing wipe.
- Ask your school child nutrition director to attend the taste testing so that she/he may learn about the students' fruit and vegetable preferences.

Rate the Taste



TIME

- Prep — 20 minutes (may vary)
- Activity — 50 minutes

MATERIALS

- Student workbooks
- Taste testing supplies, such as serving containers (two 4-ounce cups or plates per student), napkins, tasting forks and/or spoons
- Cup of water for each student
- Cleaning supplies, such as sponges, detergent, etc.
- A variety of fruits and vegetables for tasting, including fresh, frozen, canned, or dried products. Obtain these from your school child nutrition department or call your local grocer or farmers' market to request a produce donation (see Appendix for a sample donation request letter).
- Thesaurus

Caution: Whenever you are serving food to students, you should check for food allergies.



Rate the Taste

GO

1. Introduce the activity.

- Introduce the concept of variety to students.
Ask them:
 - Do you eat many different kinds of food each day?
 - Do you eat many different fruits and vegetables each day?
 - Do you like to try new fruits or vegetables? Why or why not?
 - Is it important to eat different fruits and vegetables? Why?
- Explain to students that in this activity they will taste several different fruits and vegetables. They may get to taste some fruits or vegetables they haven't tried before.

2. Brainstorm words to describe fruits and vegetables.

- As a class, review the definition of an adjective and brainstorm adjectives that may be used to describe the fruits and vegetables they taste. (*Examples may include how they taste, look, smell, or their texture: sweet, sour, juicy, tart, crisp, crunchy, mushy, tangy, bitter, ripe.*) Write the adjectives on the board.

3. Introduce the food tasting activity.

- Have students wash their hands with soap and water and clean the areas in which they will taste the food.
- Talk with your students about the steps you took to make sure the food they are tasting is safe to eat. Explain that the fresh fruits and vegetables were washed with water, even those that are peeled, and the tops of the canned items were washed before they were opened.
- Set some ground rules for your tasting activity. Ask students not to make any negative comments or faces if they taste something they don't like. Give them permission to quietly and politely remove food from their mouths into a napkin. This encourages children to try new foods without fear.
- Have students turn to Rate the Taste, Worksheet 7 in their workbooks. Review the directions at the top of the worksheet.
- Explain that students cannot use the same adjective over and over to describe the foods, but will need to come up with different adjectives.

- If you have a thesaurus available, point it out as a resource the students can use.
- Tell the students which fruits and vegetables they will taste today.
- Distribute one cup/plate of vegetables and one cup/plate of fruits to each student.
- Distribute one cup of water to each student.
- Allow 20 minutes for students to taste the items and fill out the Rate the Taste worksheet.

4. Review the results.

- Lead a class discussion about the students' experiences.
 - Did you try a fruit or vegetable you had never tasted before?
 - Were you surprised by the way it tasted?
 - Will you eat this fruit or vegetable more often in the future? Why or why not?
 - Do you usually have fruits and vegetables that you like at home?
 - Will you ask your parents to buy any of the fruits and vegetables that we tasted today? Why or why not?
 - What did we do to make sure that the food we tasted today was safe to eat?
- Ask students to write a one-paragraph description of the fruit or vegetable they liked best, using as many adjectives as they can to describe its taste, smell, and texture.

GO FARTHER

- Were there certain fruits or vegetables that students particularly enjoyed? Have students write a letter to the child nutrition director to ask that these foods be added to the school menu.
- Invite a school child nutrition staff member, chef, or a high school culinary arts class to conduct a food preparation demonstration for your class.
- If your school has a garden, conduct a tasting with fresh fruits and vegetables from the garden.
- Encourage the students to take their rating sheets home to share with their families. If you prepared a recipe, make copies available for those children that want to try making it at home.



Activity Notes: Rate the Taste

Try to conduct the tasting using fruits and vegetables that will be new to your students. The activity will be more exciting if there are new and colorful options such as:

- Artichokes
- Avocados
- Asparagus
- Bok choy
- Cantaloupe
- Dried fruit (dried peaches or dried apricots)
- Eggplant
- Figs
- Grapefruit
- Melon (cantaloupe, honeydew)
- Jicama
- Kiwifruit
- Kumquats
- Lychee
- Mango
- Red cabbage
- Papaya
- Passion fruit
- Pears
- Persimmon
- Quince
- Radishes
- Bell peppers (red, green, and yellow)
- Rhubarb
- Rutabaga
- Squash (spaghetti, summer, and winter)
- Sugar snap peas
- Sweet potatoes
- Tamarind
- Water chestnuts
- Watermelon
- Zucchini

You have several options for the taste test:

- Taste the same fruit or vegetable prepared several different ways (e.g., a steamed/microwaved vegetable and a raw vegetable)
- Taste many different types of a fruit or vegetable (e.g., samples of green peppers, red peppers, and yellow peppers, or different varieties of apples)
- Provide different dips for fruits and vegetables (e.g., lowfat salad dressing with vegetables and lowfat yogurt with fruits)

- Taste fruits and vegetables that are all the same color (e.g., green: avocados, kiwifruit, peas, broccoli, etc.)

Be sure to check with your school child nutrition department ahead of time to request food tasting samples.

To keep the cost down, purchase fruits and vegetables that are in season.



Safe Food Handling Techniques

General Food Safety

There are four simple keys to making sure that your food is safe from harmful bacteria:

- *Clean:* Always wash your hands, utensils, and surfaces with hot, soapy water before and after preparing food.
- *Separate:* Keep raw meat, poultry, and seafood separate from other foods when they are stored and when you are preparing them.
- *Cook:* Be sure to cook food for a long enough time and at a high enough temperature to kill harmful bacteria.
- *Chill:* Put prepared foods and leftovers into the refrigerator or freezer as soon as possible. Don't defrost foods at room temperature – thaw them in the refrigerator, under cold running water, or in the microwave.

Fruit and Vegetable Safety

- Rinse all fruits and vegetables with water, even if you don't eat the outside of the fruit or vegetable (such as bananas, cantaloupe, or oranges). If necessary, use a small vegetable brush to remove surface dirt. Before opening them, rinse the tops of the cans when using canned fruits and vegetables.
- Try to cut away damaged or bruised areas of fruits and vegetables.
- Use juices that have been pasteurized or treated to kill harmful bacteria. Pasteurized juices can be found in refrigerated sections of stores. Treated juices can be kept on the shelf in stores and are in juice boxes, bottles, and cans. Unpasteurized or untreated juice should have a warning label that says, "This product has not been pasteurized and therefore may contain harmful bacteria that can cause serious illness in children, the elderly, and persons with weakened immune systems."

Cooking Safety

- Always use clean, dry oven mitts whenever you use the oven.
- When cooking on the stove, make sure pot handles are turned away from the front of the stove so the pots are not accidentally bumped or knocked off.
- When uncovering a pot on the stove or a container from the microwave, open the lid away from you to let the steam out.
- Always turn the sharp edge of a knife or vegetable peeler away from you as you use it (use caution when handling a cheese grater, too). Keep your finger tips away from the sharp edge of the knife when cutting.
- Use a cutting board when you chop or slice ingredients.
- When using a blender, keep the lid on. Turn the blender off before you put any utensils inside the blender container.

For more information on food safety, visit www.foodsafety.gov.



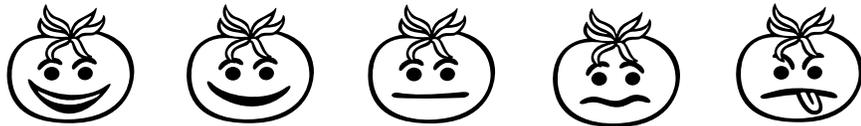
Rate the Taste

Did you like the fruits and vegetables that you tasted? Write adjectives to describe how the food tasted, looked, smelled, and felt. Do not use the same adjective more than two times. Then circle or color the picture that shows how much you liked each food. When you are done, write a paragraph about your favorite fruit or vegetable. Use the adjectives to describe how it tasted, looked, smelled, and felt.

Sample 1

Name of this food: _____

Adjectives for this food: _____



Sample 2

Name of this food: _____

Adjectives for this food: _____



Sample 3

Name of this food: _____

Adjectives for this food: _____



Sample 4

Name of this food: _____

Adjectives for this food: _____



Sample 5

Name of this food: _____

Adjectives for this food: _____



Sample 6

Name of this food: _____

Adjectives for this food: _____



My favorite fruit or vegetable: _____



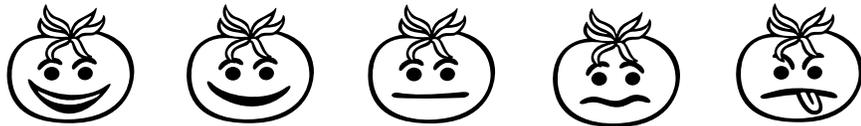
Califica el Sabor

¿Te gustan las frutas y los vegetales que has probado? Escribe los adjetivos que describen como saben, como se ven, como huelen y como se sienten. No uses el mismo adjetivo más de dos veces. Luego encierra en un círculo o pinta el dibujo que describa cuánto te gustó cada alimento. Cuando has terminado, escribe un párrafo sobre tu fruta o vegetal favorito. Usa los adjetivos para describir cómo te supo, cómo se veía, cómo olía y cómo se sentía.

Muestra 1

Nombre de este alimento: _____

Adjetivos para este alimento: _____



Muestra 2

Nombre de este alimento: _____

Adjetivos para este alimento: _____



Muestra 3

Nombre de este alimento: _____

Adjetivos para este alimento: _____



Muestra 4

Nombre de este alimento: _____

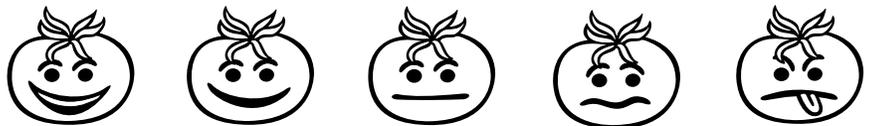
Adjetivos para este alimento: _____



Muestra 5

Nombre de este alimento: _____

Adjetivos para este alimento: _____



Muestra 6

Nombre de este alimento: _____

Adjetivos para este alimento: _____



Mi fruta o vegetal favorito: _____

Common Core Standards Frequently Used In Cooking and Tasting Activities

Math:

K.CC.4: Understand the relationship between numbers and quantities; connect counting to cardinality.

K.CC.5: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.

K.CC.6: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Groups with up to 10 objects)

K.OA.1: Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

K.OA.2: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

K.MD.1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

2.MD.10: Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

3.NF.1: Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.

3.MD.2: Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

5.MD.1: Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05m), and use these conversions in solving multi-step, real world problems.

Language Arts

- K.RL.5 Actively engage in group reading activities with purpose and understanding.
- K.W.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.
- K.L.5.a Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.
- K.L.5.c Identify real-life connections between words and their use (e.g., note places at school that are colorful).
- I.RF.4.a Read on-level text with purpose and understanding.
- I.L.5.c Identify real-life connections between words and their use (e.g., note places at home that are cozy).
- I.W.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.
- 2.L.5.d Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.
- 2.SL.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
- 2.L.5.a Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).
- 2.L.5.b Distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny).
- 3.SL.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
- 4.RF.4.a Read on-level text with purpose and understanding.
- 4.SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher- led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
- 5.SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in

groups, and teacher- led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.