

THE EDIBLE SCHOOLYARD PROJECT

WHAT IS FLAVOR?

Student Name:

Summary: What is taste? What is flavor? There are five essential tastes along with countless more smells that combine to make flavors. Investigating how foods complement each other is important to understanding flavor. Foods have distinct tastes and when those tastes are combined with other tastes, different flavors are created. In this lesson, you will explore the five tastes and learn about the relationship between taste and flavor.

Time: 20-30 minutes

Materials:

- A piece of organic fruit or vegetable
- Another ingredient or spice



WHAT IS FLAVOR?

EXPLORE: Go into your kitchen and grab an organic fruit or vegetable.

1. What did you choose? _____ Take a bite of that fruit or vegetable.

Write 3 words to describe the taste.

2. Now, find another food or spice that you want to try with that fruit or vegetable. What did you choose? _____ Try some of that food or spice.

Write 3 words to describe the taste.

3. Now try the two foods together. Describe how they taste together. Try using different words than the ones you already used.

Do you like how it tastes? Do the ingredients complement each other? If not, why not?

READ: The activity you just did is similar to what many great chefs do! They taste ingredients to see what goes well together. Investigating how foods complement each other is important to understanding flavor. Foods have distinct tastes and when those tastes are combined with other tastes, different flavors are created. Exploring and understanding flavor and taste is an important part of cooking. Let's learn more about flavor and taste!



WHAT IS FLAVOR?

DO: Complete the **Know** and **Want to Know** portions of the KWL chart below to start. List any facts you know about flavors and tastes. Write down any questions you have in the center column.

What I Know about flavors and tastes	What I Want to Know about flavors and tastes	What I Learned about flavors and tastes

READ: Did you know that flavor involves the art of combining different tastes with other sensations such as aroma, texture, and color? *Talk to the Text* as you read the reading titled Flavor and Taste (attached below). Using a pen or pencil, underline and circle words, ask questions, and make notes in the margins about what stands out to you.

Student Notes:

- Did you know that smell has a lot to do with how we taste? Try tasting different foods while pinching your nose closed! Do they taste the same or do you miss out on some of the flavor? If you are curious about how smell works, see our lesson [How Do We Smell?](#)

Teaching Notes:

- If students are completing this lesson as part of the kitchen curriculum [Cooking with Curiosity: Challenging Perfection with Reflection](#) this lesson is 1.8: The eighth lesson of Unit 1.
- If you are teaching this lesson for distance learning consider using a [Padlet](#) when assigning the KWL and reflection questions. A digital platform is a great place for students to share their responses. See our [Sharing Toolkit for Teachers](#) for suggestions on platforms for students sharing.
- For sections that instruct students to READ, you can record yourself reading aloud and send it to students. Direct them to read along with the recording. This is a helpful strategy for differentiating learning that supports all students, especially English Language Learners.

References:

Nargi, L. (2018, August 2). Explainer: *Taste and flavor are not the same*. Science News for Students. Retrieved from <https://www.sciencenewsforstudents.org/article/explainer-taste-and-flavor-are-not-same>

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FLAVOR AND TASTE

[STUDENT READING]

READ: The following is an excerpt from the article "Explainer: Taste and flavor Are Not the Same" (Nargi, 2018).

Each of the five tastes gives your brain important information about what nutrients the food has to offer, as well as whether the food you're tasting is good or bad for you.

The human tongue has 25 different types of receptors to identify various chemicals that are bitter. Just a single receptor type unlocks the sense of sweetness. But that sweet receptor "has many pockets, like one of those toys that have slots you can fit a square or triangular block into," explains Danielle Reed. She's a geneticist at the Monell Chemical Senses Center in Philadelphia, Pa. But those tastes sensed by the tongue are only a part of what we experience as flavor.

Think about biting down on a just-picked peach. It feels soft and warm from the sun. As its juices flow, they release odor molecules that you smell. These odors mingle with the fruit's taste and that soft, warm feel. Together, they give you the complex sense of a sweet peach — and let you tell the difference between it and a sweet blueberry. (Or between a bitter Brussels sprout and a bitter turnip.) Flavor, then, is that complex assessment of a food or beverage that develops when our brain melds together data from our different senses.

Everybody reacts differently to different flavors and tastes depending on what we are used to eating. That said, there are five basic tastes that combine with smells to make many of our favorite flavors. Some of these tastes are connected to our bodies' nutritional needs and inform what we want to eat.

- **Sweet** foods taste exciting and we seek them out because they contain lots of energy in the form of sugar or carbohydrates. Our bodies need energy and seeking out high energy foods probably helped early humans get enough to eat. This has been a helpful mechanism in our long history but can present a problem when lots of sugary, high-calorie foods are available to over-consume resulting in negative health impacts.
- **Salty** is another taste that we often crave. Salt is essential for our bodies to function! Without salt, we wouldn't be able to move our muscles. However, like sugar, too much salt can contribute to health problems.
- **Umami** (or savory) is a rich, meaty flavor. Some examples of foods with lots of umami are miso soup, ketchup, and parmesan cheese.



FLAVOR AND TASTE

[STUDENT READING]

- **Sour** is another cravable flavor. Many fruits have some sourness balanced with sweetness. The sourness comes from acids like citric acid and ascorbic acid, which is also known as Vitamin C. Vitamin C is an essential nutrient.
- **Bitter**, is the fifth taste. Many foods have a slightly bitter taste that can be enjoyable. Some foods like coffee and cacao (that is used to make chocolate) are very bitter on their own. Sweeteners like sugar and honey are often used to make bitter foods more enjoyable. Most people like bitter foods and bitterness more as they get older.