

Healthy Foods v. Unhealthy Foods: Making a Healthy Snack

6th Grade Garden Lesson

SUMMARY

Why are processed snack foods so addictive? You can never eat just one Dorito, right? Food scientists working in the processed food industry create combinations of flavors to make chips, sodas and other snacks that are irresistible to the human brain. There is also the sensation in the mouth like the crunch or the melt in your mouth feeling that makes your brain feel like it hasn't really eaten anything and just wants more. Most packaged, processed foods have a long list of ingredients many of which are artificial.

During this 45-minute class, we begin by looking at food labels for processed snack foods and learn about the ingredients and nutrition in each snack. We will discuss what most snack foods have in common: salt and sugar, then introduce the concept of the five basic tastes: sweet, salty, sour, bitter and umami. Students will sample the five basic tastes then come up with a recipe for a nutritious homemade snack of kale chips that satisfies the "junk food cravings" of salty, crunchy, spicy and sweet. Students will break into teams and compete to make the tastiest kale chips.

FOCUS QUESTIONS

Do you know the ingredients of a bag of Doritos? When you look at the list of ingredients of a packaged processed food, can you pronounce all the words? Where do these ingredients come from? Are they natural or artificially produced? What do most snack foods have in common? What are some of the characteristics of snack foods we crave: salty, crunchy, spicy, sweet? Can we produce a homemade snack food that tastes as good but is healthier for you?

OBJECTIVES

- Students will learn to read nutrition labels and ingredients listed on processed snack/ junk food.
- Students will compare nutritional values of processed foods v. whole foods.
- Students will sample the five basic tastes: sweet, salty, sour, bitter and umami
- Students will experiment mixing the different tastes together to balance the flavor. They will use this seasoning mix to flavor the kale chips.
- Students will discuss why eating whole foods is more nutritious than eating processed food.

MATERIALS

- Packaged processed food wrappers (ask students before hand to bring them to class)
- 2-3 large mixing bowls
- 2-3 small mixing bowls
- Plastic tasting spoons
- Bunch of fresh kale
- Sugar
- Salt
- Pepper
- Cayenne
- Paprika
- Garlic powder
- Lemon juice
- Balsamic vinegar
- Chili pepper flakes
- Nutritional yeast
- Parmesan cheese
- Cocoa powder

PROCEDURE

ENGAGE (10 minutes)

Discuss food labels. Ask students to read the ingredient list of the packaged snack food they brought from home. Ask students if they recognize all of the ingredients. Can they pronounce most of the ingredients? How many ingredients were on the list? How many calories are in a single sugar? How many grams of sugar or in a serving? Grams of fat? What is the salt content? Some nutritionists say that if you can't pronounce it, you shouldn't eat it. And if something has more than five ingredients, you shouldn't buy it.

ACTIVITY 1 (10 minutes)

Divide class into two or three groups. Set up tasting cups with the following items:

- Sugar
- Salt
- Lemon juice
- Vinegar
- Nutritional yeast
- Cocoa powder

Students taste each item and identify them as: sweet, salty, sour, bitter or umami (savory)

ACTIVITY 2 (15 minutes)

Each group is given a bunch of kale to rip into large pieces then place in a large bowl. Then working as a team, each group makes a seasoning mix using a variety of seasonings that include most of the five tastes. The kale is mixed with olive oil then mixed with the seasonings and placed in the dehydrator. The kale will take one to two hours to crisp up so students will not be able to taste them until the following day. If you want to give the students immediate gratification, pre-cook some kale chips in advance for kids to sample at the end of class.*

DISCUSSION (10 minutes)

Is the homemade snack food as good as the processed snack/junk food? Why is eating whole foods healthier than eating junk food? Is it possible to make from scratch a snack food as tasty as a packaged snack food from the store?

* The next day students will sample their own kale chips and plant kale seeds in the greenhouse.