

Dehydrator Kale Chips*

Activity 1, February: Healthy Snacking

KI Key Concepts

4. Students will know the parts of the plant and which part a fruit or vegetable is
5. Students will know the different ways that plants grow and what they need to grow
6. Students will know what local means and if a fruit or vegetable is local
7. Students will know what an anytime food is

Materials

- A. Two bunches of kale
- B. Olive oil and salt in gallon Ziploc bag
- C. Dehydrator

Activity

Introductory

- a. Tell students that today they will be doing a lesson about how to preserve food. Write Preserve on the board, have the students all say it, and have them read off the letters to tell you how to spell it.
- b. Define “preserve” for them (to keep or save in order to use later). Explain that just putting food in the refrigerator preserves it for a while, but if they want to keep something longer it has to be treated differently. Ask students if they can think of any examples of preserved food. (The easiest one is anything frozen. If they have eaten jerky, fruit leather, or any kind of fruit or vegetable chips other than potato, those are all dried – remind them of the apple chips in September. Some may have seen or cooked with varieties of dried peppers. Pickles, sauerkraut, kimchi, relish, etc. are all pickled.)
- c. Ask them why you might want to preserve something. Review Fruits from Near and Far and Vegetables From Near and Far, talking about how different fruits and vegetables like the temperature warmer and some don’t mind the temperature here in Worcester, Massachusetts.
- d. Presumably it will be cold by now and leaves will be off any trees in the area. Explain to them that most fruit and vegetable plants, like the other plants outside (this would be a great opportunity to show students the school garden, if you have one), even if they like the temperature during the spring, summer, and fall in Worcester, Massachusetts, rest during the winter, so there are very few fresh fruits and vegetables for us to eat. Explain that preserving lets us take fruits and vegetables that are fresh and local and save them for eating when there aren’t local fruits and vegetables growing. (If the idea of not having fresh fruits and vegetables is confusing because they know they can get them at the grocery store, explain that even though it is winter here and almost nothing is growing, that it is warm somewhere else and fruits and vegetables are growing there. Those fruits and vegetables are brought to our grocery stores where we can buy them, but they’re not local.)

- e. Ask students if any of them know what kale is. Show them the bunch and ask them what it looks like. Have students feel and smell the leaves, but don't have them taste them yet. Tell students that kale is a local vegetable and it is the leaf part of the plant.
- f. Ask students to remember back to when you did the Rainbow on my Plate activity (third week of November). Can they remember why dark green vegetables are good for us? (Among other things, they have iron, which is good for our blood and muscles.)
- g. Explain that you are going to make a tasty, healthy, anytime, local snack by preserving this kale with your class dehydrator.

Developmental

- a. Give each student a piece or two of kale and have them tear the leaves off of the stem and into small pieces (2" square, or so). Have students place all of their kale pieces into the plastic bag with salt and olive oil.
- b. Seal the bag, pressing out most of the air and then toss the bag well, making sure that each piece of kale gets coated in oil and salt—don't be afraid to squeeze the kale. You can pass the bag around and give each student an opportunity to shake or squeeze the bag.
- c. Take the kale pieces out of the bag and lay them as flat and not touching as possible on the dehydrator trays. Set the dehydrator to low or 135° or to on, depending on the settings on your dehydrator.
- d. Check the dehydrator after one hour. If they chips are not yet crunchy, continue dehydrating for another 1/2-1 hour. The chips should be crunchy after 1 1/2 to 2 hours. If they are not, you can leave them in as long as it takes for them to get crunchy.

Concluding

- a. Once the chips are done, give each student a few chips and a small piece of raw kale. Have them look at, feel, and smell both pieces. How do they look? How do they feel? How do they smell? Are these the same for both pieces or different?
- b. Have each student taste the kale chips and the raw kale. Did they like the raw kale? Did they like the kale chip? What does each taste like? Would they eat it at home? Which do they prefer?
- c. Ask students if kale is local, what part of the plant it is, if it's an anytime food, and which category of MyPlate kale falls into.
- d. Tell students that they will be bringing home some local kale and the recipe for kale chips and that they can teach their families how to make this healthy, anytime snack at home.

DESE Kindergarten Learning Experiences

Science: Earth and Space Science 5. Identify some events around us that have repeating patterns, including the seasons of the year, day, and night.

Science: Life Science 7. Recognize changes in appearance that animals and plants go through as the seasons change.

ELA: Language 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.

Health 3.2. Use the USDA MyPlate and its three major concepts of balance, variety, and moderation to plan healthy meals and snacks.