

3-5th Grade

November

HARVEST OF THE MONTH

KALE

NC Standard Course of Study

ELA Conventions of Standard English 3-5. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Use knowledge of language when writing, speaking, reading, or listening.

Science 4.L.2. Explain the role of vitamins, minerals and exercise in maintaining a healthy body.

Materials needed:

- Construction Paper
- Writing utensils (markers, crayons, colored pencils)
- Kale leaf to pass around
- Ingredients for optional snacks (See attached recipes)
- 4-6 gallon-sized Ziploc Bag
- Large bowl

Goal:

In a lesson that can be connected with Thanksgiving, students compose thank you notes to the farmers, processors, or cooks involved in bringing food to our table. For an extension, students can enjoy a kale snack.



Activity Length:

Flexible. 45 minutes ideal



Location:

Classroom

Kale Life Cycle

Pass out “Kale Life Cycle” handouts and ask students to follow along as you read the script. (Alternatively, students can practice reading and take turns reading the different steps of the life cycle.)

- Before it grows into a plant, what does kale start out as? **Seeds**.
- What does kale need to grow? **Sun, soil, water, and air**.
- If we plant a kale seed in soil, give it water, after a few days it will start to grow **roots**.
- **Roots** provide a support system for the kale plant. They draw water up from the soil along with nutrients like potassium and iron to help the kale grow big and strong. **Roots** also keep seedlings in the ground, and help them grow upright.
- After growing roots, the kale seed will “germinate”, meaning it sends up a **stem and leaves**. These are the first parts of the plant that we can see above ground.
- What are the main role of **leaves**? **Photosynthesis!** The leaves spread out wide and collect energy from the sun. The kale plant uses this energy to create food for itself.
- At this point, the kale is ready to eat! We eat the **leaves** of the kale plant.
- When the kale plant is ready to make new plants, it will grow small **flowers**.
- In the life cycle of a leafy green such as kale, this step is called **bolting**.
- Inside each **flower** are several more **seeds**. Each one of the new **seeds** has the potential to create another kale plant, and begin the cycle all over again!

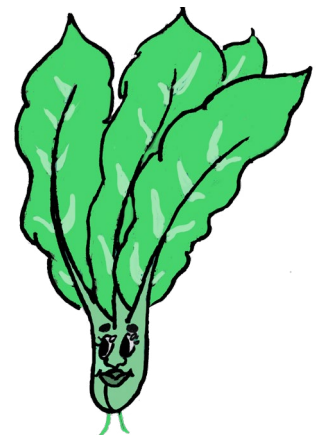
Supply Chain

Watch the video “Iceberg Lettuce – Farm to Table”
https://www.youtube.com/watch?v=b8x17XL-_Ao

Ask students to identify the different steps of the supply chain as seen in the video, arriving at the five main steps:

- Plant: The farmer had to plant the seeds or saplings
- Harvest: The farmer and his or her employees harvest the produce
- Transport: A driver had to drive them from the farm to the store, market, or processing facility
- Prepare: Someone (a processing facility, chef, family member) has to wash and prepare the food
- Eat: Finally, after all the work, YOU get to eat it!

**This video ends at the “transport” step. Encourage students to imagine where the lettuce might be going (a restaurant, a grocery store, etc.) and the different ways they might eat it!*



Harvest of the Month Moment!



Before diving into the lesson, introduce the featured produce!

If space, gather in a circle or around the poster. Feel free to use this space to share your own experiences with the harvest and celebrate what students know.

The Harvest of the Month for NOVEMBER is KALE!

Kale is a leafy green member of the Brassica family (other Brassica plants include cabbage, collard greens, even broccoli!)

Kale grows well in the fall and winter in central North Carolina

Ask students to find the harvest on the What's Growing On? Poster. If available, pass around the harvest and invite students to share observations (How does it feel, look, smell, sound? Does it remind you of another harvest we've done this year?).

Consider asking some warm-up questions for students:

Have you tried kale? When did you try kale?

How does your family like to prepare kale?

Do you have anything that you know about this harvest that you'd like to share?

What's Growing On?



1. Introduction

In November, with Thanksgiving coming up, it's a great time to reflect on things we're thankful for.

Have each student share a response to the question. *What are you grateful for?*

Today we are going to be talking about the people who make our food possible. Because Kale is plentiful at this time of the year (or is being served in the cafeteria today), we will talk about the people who make it possible for us to enjoy this delicious leafy green!.

2. VitamInvestigation

Kale is rich in Vitamins A, C, and K. Ask students to share what they think vitamins do.

What is a Vitamin?: substances that are found in foods we eat. Your body needs them to work properly, so you grow and develop just like you should. When it comes to vitamins, each one has a special role to play. For example:

- **Vitamin A:** helps with vision, growth and development
- **Vitamin C:** helps with the immune system (defense to keep your body healthy)
- **Vitamin K:** helps clot blood. (To explain, ask students if they've ever had a cut...they eventually stop bleeding, right? Vitamin K to the rescue)

Invite students to make the letter signs with their bodies or do the ASL sign and then come up with a movement that represents its function. (For example, glasses for vitamin A, etc)

3. Thanking the people who make our food possible (20 minutes)

Read "Before We Eat: From Farm to Table" by Pat Brisson. Invite students to share things about about farm-to-table process or the role of a farmer that they did not know before

Write thank you notes!

- Ask a student volunteer to pass out construction paper & markers
- Share a template on the board. Practice letter writing etiquette with proper punctuation, capitalization
- Depending on grade level and writing standards, set a required number of sentences and sentence variations.
- Invite students to share what they've written with a partner and peer edit.
- If time, students can take turns reading what they've written for the class
- Of course, don't forget to have students sign the card with their first name

EXAMPLE NOTE:

Date _____

Dear Farmer,

Thank you for _____growing our food/the kale/greens

Farming/agriculture is important because _____

Farm-City week
Thanksgiving_____

Your friend,

Follow-Up: Deliver cards to farmer or cafeteria workers!

Kale, Apple, & Carrot Salad



Prep & Cook Time: 15 minutes

Ingredients:

- Chopped Kale Leaves
- Olive Oil/Lemon Dressing
- Diced Apples
- Grated Carrots
- Sunflower seeds (optional)

Steps:

- Divide the students into 5-6 groups
- Divide Kale and Dressing between 5-6 Ziploc bags. Give one bag to each group and let students take turns massaging the dressing and kale until the kale has softened slightly and turned a darker shade of green
- Pour Kale and Dressing into a large bowl. Add apples and carrots and toss together.
- Add sunflower seeds, if using

Adapted from the Garden Gastronomy Cookbook

Kale Life Cycle

