



Food Education Standard 2: Foods have sources and origins.

Growing Food in Soil

Grade Levels & Subjects: Grades 3-5 English Language Arts

Learning + Food Objectives:

Students will learn about food sources and origins by comparing and contrasting two different types of fruits or vegetables (or other food that grows on land).

Common Core Standards:

Common Core English Language Arts

Comparing and contrasting informational text and scientific ideas

[CCSS.ELA-LITERACY.RI.3-5.3](#)

Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.



MATERIALS NEEDED

- "Polenta with Mushrooms and Greens with Chef Julia Weeman" <https://vimeo.com/434060742>
- Compare and Contrast Chart worksheet below - could be recreated in Jamboards, Pear Deck, or other online learning platform

CLASSROOM PROCEDURE

INTRODUCTION (5-10 minutes)

1. Tell students that today they will be learning about where our food comes from - particularly on land. Let them know that in other lessons, you will discuss other places that food grows, like water, but today, we will focus on food growing in soil and on land.
2. Ask students to think about their favorite fruit or vegetable. If students are hesitant to name a specific fruit or vegetable, you could suggest something like - do you like potato chips, french fries? Potatoes are vegetables! We want to hook students in thinking about fruits and veggies they like to eat and then thinking about where they come from/how they are grown.

3. As a class, list students' favorite fruits or vegetables. Have students follow up their answer with where this is grown if they know - in the ground, on a tree, etc. This activity could also be done as a homework assignment on platforms like Jamboard or Pear Deck.
4. "What is your favorite fruit or vegetable? How do you think it is grown?"

INSTRUCTION (insert. duration)

1. Tell students that they are now going to watch a video about how a delicious recipe is made using two different types of food that is grown in the ground - greens (swiss chard) - in the same family as spinach and mushrooms - a fungi! "Polenta with Mushrooms and Greens with Chef Julia Weeman"
<https://vimeo.com/434060742>
2. After watching the video, present students with a Compare and Contrast Chart (see example below) - one side with mushrooms and one side with Swiss Chard (or another type of green). Tell students that today they will be comparing and contrasting using a chart as a tool.
3. Teacher will show a Compare and Contrast Chart and label swiss chard (or other type of green) and mushrooms on each side. Teacher can begin by modeling gathering information about each food (including research if needed), and how to compare and contrast. (As a note, swiss chard and greens are vegetables and mushrooms are a fungus). Prompts for this activity can include:
 - What color is it?
 - What type of texture does it have?
 - How does it taste? Is it sweet? Bitter?
 - How do you eat it? Do you cook it? Eat it raw?
 - How does it grow? If I don't know, how can I look this up (teacher can model doing research about that vegetable or fruit)
 - Can it be grown near where I live? If so, when?

***Teacher and students can use the websites listed in "Text Resources" for additional information.

Suggested resources for this portion of the lesson include:

- "Fungi: Why Mushrooms Are Awesome" by Biology for Kids
<https://www.youtube.com/watch?v=2fooP2ienR0> (this resource explains the difference between fungus and vegetables)
 - *Sylvia's Spinach* by Katherine Pryor and illustrated by Anna Raff (published by Readers to Eaters)
 - i. Read-aloud from Katherine Pryor: <https://www.youtube.com/watch?v=8NojEfvCiSQ>
4. Teacher will then ask students to fill out their own Compare and Contrast Chart using two types of food that can be grown on land - vegetables, fruits, fungi, etc. (This could also be animals or teacher could decide to stick to plants.)

***Teacher and students can use the websites listed in "Text Resources" for additional information.

CLOSING (teacher discretion)

1. Students can share their findings with their classmates and could share one thing they learned about the two foods that they researched. Teacher could also prompt students about if they are interested in trying any new foods based off of this activity, and if so, why.

ADDITIONAL RESOURCES

- Informational site about growing vegetables, fruits, herbs: <https://harvesttotable.com/>
- Informational sites on characteristics of fruits & vegetables:
<https://kids.britannica.com/kids/article/fruit/353156>,
<https://kids.britannica.com/kids/article/vegetable/400167>
- *Sylvia's Spinach* by Katherine Pryor and illustrated by Anna Raff (published by Readers to Eaters)
 - Read-aloud from Katherine Pryor: <https://www.youtube.com/watch?v=8NojEfvCiSQ>
- "Fungi: Why Mushrooms Are Awesome" by Biology for Kids
<https://www.youtube.com/watch?v=2fooP2ienR0>

RECIPE FROM VIDEO

Video: "Polenta with Mushrooms and Greens" - <https://vimeo.com/434060742>

Below is the recipe from the video in this lesson. Pilot Light Anywhere lessons are designed to be able to be delivered from a remote setting; however, this recipe can be demoed by the teacher virtually/in person, sent home to families, or used for reference.

Polenta with Mushrooms and Greens

Serves 4

Ingredients:

Polenta

- 3 cups water, chicken stock, or other broth
- 1 tsp. salt
- 1 cup coarse corn grits/polenta
- 3 TB butter or extra virgin olive oil (or combination)
- Optional:
 - 2 Tbsp cream
 - 1 bay leaf
 - 3 sprigs thyme leaves, picked (other soft herbs such as basil or parsley would also work well)

Mushrooms

- 1.5 lbs mushrooms, cut or broken into bite-sized pieces
- Chef's choice combination of alliums
 - 1 Tbsp minced garlic, shallot or onion **OR**
 - 1/4 cup diced spring alliums (scallions, spring onions, ramps, green garlic, scapes)
- 2-3 TB extra virgin olive oil (or other neutral oil)
- Salt (to taste)

Greens

- 1 large bunch swiss chard, spinach, lacinato kale, or other tender green, stems removed and chopped into 1 inch pieces, leaves torn into large pieces
- 1 TB extra virgin olive oil
- Salt (to taste)

Preparation:

1. Bring water and salt to boil. Add bay leaf, butter or olive oil and cream, if desired, then grits/polenta, stirring to incorporate. Lower heat to medium low and cook 30-45 minutes, stirring occasionally, until soft and creamy, adding more water or stock if needed. Add thyme and adjust salt to taste.
2. While polenta is cooking, heat a heavy sauté pan over high heat. Add oil, then mushrooms. Season well with salt. Once water from mushrooms has mostly evaporated and mushrooms begin to brown, lower heat to medium and toss to encourage even browning, letting them continue to cook and get color on all sides until they are crispy and cooked through. Add in your choice of allium, stirring until cooked and fragrant.
3. Don't forget to stir your polenta every 5 minutes or so while you're cooking your mushrooms and chard!
4. In a medium pot or deep pan, heat oil over medium. Add stems and cook until just tender. Add a splash of water, then greens, and cover. Reduce heat to low and cook 3-5 minutes or until leaves and stems are tender. Adjust salt to taste and add butter if desired.
5. Spoon polenta into a bowl or serving dish and spoon the vegetables on top.

The student worksheet below can be printed or copied onto
any online learning platform.



Comparing and Contrasting Food Grown on Land

Questions to think about:

Name of food:		
What color is it?		
What type of texture does it have?		
How does it taste: Is it sweet? Bitter?		
How do you eat it? Do you cook it? Eat it raw?		
How does it grow? If I don't know, how can I look this up? (teacher can model doing research about that vegetable or fruit)		
Can it be grown near where I live? If so, when during the year?		



Now, using the information you have gathered, compare and contrast these two foods in your **Compare and Contrast Chart**

Name of Food:	SIMILARITIES	Name of Food:
<ul style="list-style-type: none"> • • • • • • 	<ul style="list-style-type: none"> • • • • • • 	<ul style="list-style-type: none"> • • • • • •