

HISTORY

The first potatoes originated in the Andes mountains of South America near modern day Peru and Bolivia between 8000-5000 BCE, and were widely grown by the indigenous people, including the Inca as a staple food crop. Around 1536, Spanish Conquistadors brought potatoes to Europe in what historians call the Great Columbian Exchange. The potato spread across Europe, but they didn't grow as well in the European climate. Ireland proved to have a better climate and soil for potatoes, and by the end of the 17th century they became a large part of the economy and a staple food for the Irish people. A blight on potatoes led to the Great Famine of 1845-1849 in Ireland which caused the death of more than a million people and the departure of millions more to find opportunity elsewhere. In 1621, potatoes first arrived in colonial Jamestown. They were not widely grown for almost a century until 1719, when they were planted in Londonderry, New Hampshire, by Scotch-Irish immigrants, and from there slowly spread across the country.

FUN FACTS

During the 18th century, potatoes were served as a dessert, hot and salted, in a napkin.

Sweet potatoes and white potatoes are from different plant families.

Potatoes were the first vegetable to be grown in space in 1995.

The average American eats 124 pounds of potatoes per year. German people eat 248 pounds of potatoes a year.

FARMER BIO

Margaret Gichuki is an alumna of New Entry Sustainable Farming Project who farms 2 acres in Dracut, Massachusetts at Margaret's Farm. She grows swiss chard, eggplant, kale, collard greens, white sweet potato for the tuber and leaves, amaranth, African nightshade, jute mallow, water spinach, and squash. She sells to the New Entry Food Hub and to members of the African community in Lowell and Dracut.

New Entry Sustainable Farming Project was created in 1998 by Tufts University to integrate recent immigrants and refugees with farming backgrounds into Massachusetts agriculture, which has since expanded to beginning farmers of all backgrounds.



OR NOT?

Grades 3-5 • 60 minutes



OBJECTIVES

Students will learn about food production, farming, and processed foods.

ESSENTIAL QUESTIONS

What does it mean to eat local? How do our food choices affect the world around us?

MA STATE FRAMEWORK(s)

Writing Standards (Grades 3-5)

MATERIALS NEEDED

Right This Very Minute by Lisl H. Detlefsen Processed or Not? Cards (1 card per student) Construction/card stock paper Lined paper Various art supplies (markers, colored pencils, glue sticks)

PROCEDURE

Introduction

Share the following with your students:

All of the food we eat travels through a commodity chain. Growing, harvesting, transporting, processing, and consuming are all distinct links in the chain. Eating fresh produce from your garden creates a shorter chain because it takes less time and resources to grow and transport homegrown produce. Eating California-grown produce in Massachusetts creates a longer chain because of the labor and resources used to grow, harvest, process, and transport commodities (food) across the United States.

Most of the food we eat requires some form of food processing, like curing pork, pasteurizing milk, making cheese from milk, squeezing oranges into orange juice, or turning apples into applesauce. Without food processing, our diets would only consist of whole, raw foods exactly as they were produced or grown on the farm and only in the season or for the shelf life of the food item. It is important to understand the story of our food and how farmers feed our nation.

> Lesson re-printed & adapted with permission from: Utah Agriculture in the Classroom

PROCESSED OR NOT?

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PROCEDURE



Activity #1: What are Farmers Doing Right Now?

- 1. Begin by asking your students what they think farmers are doing right this very minute.
- 2. Allow students to share ideas and discuss different possibilities.
- 3. Read the book Right This Very Minute by Lisl Detlefsen.
- 4. Discuss food with your students. What food do they regularly eat in the lunchroom? What do they enjoy for breakfast?
- 5. Ask students what is happening right this very minute with the food they eat.
- 6. Explain to students that they are going to learn more about the food they eat, where it is grown, and what farmers are doing right this very minute to produce our food.

Activity #2: Processed Foods

- 1. Ask the students what it means to process something. Allow the students to share their ideas.
- 2. Explain to the students that much of the food we eat is processed. Food that is not processed is referred to as whole, raw, or fresh.
- 3. Ask the students why we process food.
- 4. Pass out a Processed or Not? card to each student. Instruct the students to determine if the food on their card is processed or not.
- 5. Ask the students who are holding processed foods to stand on the left side of the classroom. Ask the students who are holding fresh or raw products to stand on the right side of the classroom.
- 6. Some products may be able to go on either side of the classroom. For example, milk is processed because it undergoes pasteurization and homogenization; however, some people do consume raw milk. The bread on the sandwich has been processed from wheat, but the lettuce and tomato on the sandwich could be fresh. Some eggs are pasteurized in the shell before consumption, or students might gather fresh, raw eggs from their own chickens. Allow students to think critically about their answers.
- 7. Once students have decided on which side of the classroom to stand, discuss their answers.
- 8. Ask students again why we process food. Students should be able to see from all the students standing on the processed side, that food processing gives us more options.
- 9. Ask the following questions to lead a discussion:
 a) What would we have to eat if we didn't process any food?
 b) Is one side of the room healthier than the other? (Healthy diets include eating lots of fresh fruits and vegetables. Some of our food is safer to eat because of processing—like pasteurizing dairy and egg products.)
 - c) What are farmers and agriculturists doing right this very minute to grow and produce our food?

PROCESSED OR NOT?

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PROCEDURE

Wrap Up

Review and summarize the following key concepts:

- Farmers are constantly working to grow and harvest the food we eat.
- A wide variety of agricultural products are grown all over the United States.
- Much of the food we eat is processed. Without food processing, our diets would only include raw, whole foods that are grown in season on the farm.

















