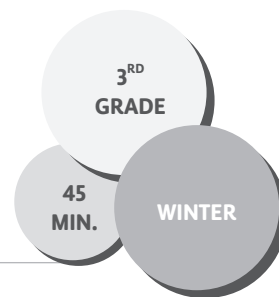


Let's Jam!

THEME: EXPLORING THE ECOLOGY OF FOOD



ESSENTIAL QUESTION

Where does our food come from?

LEARNING OBJECTIVES

- ✓ Students will be able to explain the steps and people involved in processing food.
- ✓ Students will be able to make a simple jam.

LESSON DESCRIPTION

In this lesson, students consider the steps in the food system with each student taking on an important role in the processing of strawberry jam.

MATERIALS

- Role Cards (1 per student)
- Bowl for role cards
- Chart paper or class board
- Large bowl for rinsed berries
- Large mixing bowl for sliced berries
- Measuring cups
- Long-handled spoon
- Ladle
- Tape
- Permanent marker
- Small tasting cups
- Jam ingredients (see recipe below)
- 5 cutting knives
- 5 cutting mats
- Tray
- Crackers or toast to eat jam with
- Our Food System Worksheet (p. 391) for each student
- Colored pencils

PREPARATION

- Create 1 Role Card for each student.
Depending on the class size, you may need to combine a few roles, or give the same role to several students. Roles such as Ingredients Sourcer and Mixer could be combined, while roles such as Slicer and Supermarket Seller could work for several students to have.
- Photocopy the Our Food System Worksheet for each student
- Set up three stations in the room where students can enact each step: the farm, the factory, and the supermarket. Put appropriate supplies at each station.
- Optional: Gather props for students to use to distinguish and add to their roles (e.g., create a steering wheel out of cardboard for the truck driver, provide hair nets for the factory workers, etc.)

*Chia Strawberry Raw Jam**

- 4 cups strawberries (frozen if not in season)
- 2–4 Tbsp lemon juice, to taste
- 2–4 Tbsp honey, agave, maple syrup, or sugar, to taste
- 4 Tbsp chia seeds, plus more if needed

*NOTE: This lesson could work with any type of jam that makes sense in your region at this time of year (orange marmalade, cranberry, etc). This particular Chia Strawberry Raw Jam is a good option if you don't have access to a burner because it's prepared raw.

FOOD SYSTEM ROLES

FARM

- **Harvester**—Pick stems off berries
- **Washer**—Wash berries
- **Truck Driver**—Deliver berries

FACTORY

- **Slicer**—Slice berries into small pieces
- **Ingredients Sourcer**—Follow recipe and measure ingredients
- **Mixer**—Add ingredients and mix
- **Label Maker**—Create a label for each cup
- **Packager**—Pour strawberry jam into cups and affix label

SUPERMARKET

- **Truck Driver**—Transport cups to supermarket
- **Supermarket Seller**—Sell (pass out) cups to customers

ACTION STEPS

1. Engage: Gather students in a circle, and show them a pint of strawberries and strawberry jam. Ask, *What's the difference between these two things?* Discuss. Ask, *What steps would it take to get from one to the other?* On the board or chart paper, make a list of the steps students anticipate. **(5 min.)**

2. Assign Roles: Explain, *Today we're going to make strawberry jam. You'll each have a role to play in the "food system."* A "food system" is a series of people and activities that get food from a farm to our plates. Show students the "farm," the "factory," and the "supermarket" in the classroom. Pass out the Our Food System Worksheet. Explain that while some students are performing their roles, others will be illustrating the process. You might pay homage to farmers by having all students pretend to plant strawberry seeds as the first step of the process. Have students draw

role cards out of a bowl and then go to their respective stations. **(5 min.)**

3. Wash Hands Break! (5 min.)

4. Making Jam: While a few students at a time are fulfilling their role to help make the jam, have the remaining students illustrate each step on their worksheet. Have Harvesters pick stems off berries, have Washers rinse the berries, and have the Truck Driver deliver the berries to the factory station. At the factory, the Labelers can start creating and affixing labels to cups while the rest of the factory workers are making the jam. Have Ingredients Sourcers measure out other ingredients while Slicers slice berries and place them in a bowl they pass off to the Mixer. After the Mixer has incorporated all the ingredients, he or she should pass the bowl to the Packager who will pour a little into a tasting cup for each student. If you have the time, place the jam in the refrigerator to set for thirty minutes. Otherwise, expect it to be a bit runny. **(20 min.)**

5. Tasting: Have the Truck Driver transport the cups to the supermarket on a tray. Then have students form single file lines at the supermarket to buy jam from the Supermarket Sellers. Meanwhile, deliver crackers to students' desks. Once all students have jam, have them taste together, and ask students to describe the flavors and texture of their jam. Explain that most jam you buy at the store is cooked but that they made a raw jam that gets its texture from chia seeds. **(5 min.)**

REFLECTION

Have students discuss the following questions in small groups, then share with the class: **(5 min.)**

- *What are some differences between buying jam and making our own jam?*
- *What surprised you about the activity we did today taking strawberries from the farm to the supermarket?*
- *Why is each person important in the process of making the food we buy and eat?*
- *Ask yourself: How did I contribute to making this jam? Did I work well with my classmates?*

ADAPTATIONS

Economics Extension: Have students consider the cost of each step by having a dollar symbol to represent the pay for each person involved in the process and tallying the dollar symbols. You can also discuss with students how much they would want to get paid for their role, and add those figures to get at the total cost. This extension could be a great conversation starter for engaging older grades in thinking about farm workers' rights and compensation.

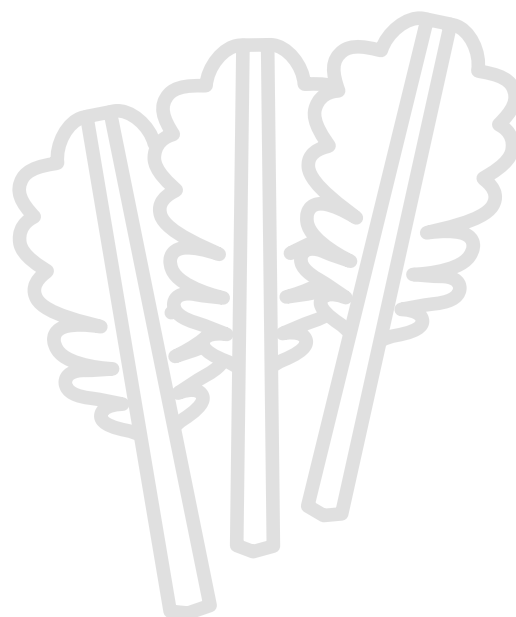
Literacy Extension: Read *How Did That Get in My Lunchbox?* by Chris Butterworth to reinforce and expand upon the concepts in this lesson.

ACADEMIC CONNECTIONS

English Language Arts Common Core State Standards

CCSS.ELA-LITERACY.SL.3.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly.



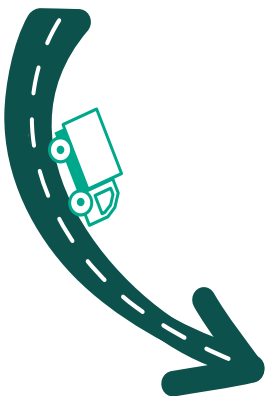
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Our Food Systems Worksheet

FARM



SUPERMARKET



FACTORY