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.

CONCEPTS
factory  food product  food system

Engaging the Classroom Teacher

• Prior to the lesson, coordinate with the teacher to see whether you can lead the activity in the morning and return in the afternoon (or lead the activity in the afternoon and return the next day), giving the jam time to set.
• During Action Step 4, suggest that the teacher ensure students who have either finished their job or are waiting for their job to begin are filling out their worksheet.

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. 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 can be prepared raw.

MATERIALS
- Jar of store-bought jam
- Food System Role Cards (1 per student; p. 363–364)
- Role props (optional; see Preparation)
- 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
- Chia Strawberry Raw Jam ingredients (see recipe below)
- 5 cutting knives
- 5 cutting mats
- Tray
- Box of crackers or pieces of bread to eat jam with
- Our Food System Worksheet (p. 362) for each student
- Colored pencils

PREPARATION

› Photocopy a Food System 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. Add even more roles, such as an advertiser who makes advertisements for the product or a factory cleaner who washes all the tools.

› Photocopy 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., give sun hats to the farm workers, create a steering wheel out of cardboard for the truck driver, provide hair nets for the factory workers, provide aprons to the supermarket employees, etc.).

### Chia Strawberry Raw Jam

**Yield:** 2–2½ cups, about 35 servings of 1 tablespoon

- 4 cups strawberries (frozen if not in season)
- 2–4 tablespoons lemon juice, to taste
- 2–4 tablespoons honey, agave, maple syrup, or sugar, to taste
- 3–4 tablespoons chia seeds, plus more if needed

**Note:** Cooking the jam softens chia seeds quickly, so this is a good option if you have access to a burner but less time to let jam set.

### 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?* Have students turn and talk to a neighbor to discuss. Ask, *What steps would it take to make this jam?*
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 “super-
market” in the classroom. Pass out 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. Hand-Washing 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 wash 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, they 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 supermar-
ket to buy jam from the Supermarket Sellers.
Meanwhile, have another student deliver crack-
er to students’ desks. Once all students are
seated, have them taste the jam together. 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. You might
compare the ingredients listed on the jar of jam
with the ingredients that went into your recipe.
(5 min.)

REFLECTION
Have students discuss the following ques-
tions in small groups, then share with the
class: (5 min.)

Social and emotional learning
• Ask yourself: How did I contribute to making
our jam? Did I work well with my classmates?

Check for understanding
• 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?

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.

**Table-Group Variation:** For a streamlined version of the lesson, have students at table groups perform each role. This will likely mean cutting some roles and steps in the process, so be sure to discuss these with students.

**Cooking-Show Style Variation:** If you don’t have enough in-class time to let the jam set, or are unable to return to the class at a later time, consider making the jam yourself beforehand. After students have gone through the process, have them taste the set jam you’ve already made.

**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.
Our Food System Worksheet

SUPERMARKET

FACTORY

FARM

Date:

Name:
Food System Role Cards

**FARM**
- **Harvester**
  Pick stems off berries

- **Truck Driver**
  Deliver berries

**FARM**
- **Washer**
  Wash berries

**FACTORY**
- **Ingredients Sourcer**
  Follow recipe and measure ingredients

- **Slicer**
  Slice berries into small pieces

- **Mixer**
  Add ingredients and mix

- **Packager**
  Pour strawberry jam into cups and affix label

- **Label Maker**
  Create a label for each cup
Food System Role Cards

SUPERMARKET

**Truck Driver**
Transport cups to supermarket

SUPERMARKET

**Supermarket seller**
Sell (pass out) cups to customers