

Muse®

Delicious!

Bring your appetite as you study the pages of this month's MUSE magazine. Readers will enjoy learning how to make a homemade pizza and reading about the interesting work of a food stylist. Students will also follow investigators as they methodically pinpoint the source of a food poisoning outbreak.

CONVERSATION QUESTION

What do you know about food?

TEACHING OBJECTIVES

- Students will learn how to make a homemade pizza pie.
- Students will learn how food poisoning outbreaks are investigated.
- Students will learn about the unconventional methods food stylists use to create visually beautiful food.
- Students will explain the sequence and process of making pizza.
- Students will study the structure and function of an E. coli bacterium cell.
- Students will analyze the problem-and-solution relationships in the article.
- Students will use information from the text to create and solve theme-based word problems.
- Students will use two different formats to create a questionnaire.
- Students will develop food strategies to waste less and/or give more.



In addition to supplemental materials focused on core STEM skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

SELECTIONS

- **Kira's Pizza**
Expository Nonfiction, ~1010L
- **The Case of Something I Ate**
Expository Nonfiction, ~870L
- **The Food Stylists' Art**
Expository Nonfiction, ~1150L

Muse® Teacher Guide: March 2022

Kira's Pizza

pp. 14–17, Expository Nonfiction

From sourdough starter to steamy hot slice, Kira will explain how to make a delicious homemade pizza pie. Readers will enjoy the interesting text and mouth-watering photographs.



ENGAGE

Conversation Question: What do you know about food?

Pose the following question to students: “What is your favorite food?” As students share their answers, compile a master list on the board. Use tally marks to indicate when an answer is repeated. Initiate a group discussion focusing on the most frequent answers. Reveal that pizza is always in the top three answers in American surveys. Distribute the article and challenge them to learn more about making pizza.

INTRODUCE VOCABULARY

Post the key terms and discuss the definitions. Then display the following questions and have students choose the correct answers.

1. Which activity below is **NOT regulated**?
a) fishing b) drinking alcohol c) exercising d) adopting a pet
2. Which term could **NOT describe a commercial cookie**?
a) homemade b) crunchy c) cream-filled d) store-bought
3. Which food item does **NOT need to age**?
a) cheese b) dough c) vinegar d) eggs

Answers: 1. c; 2. a; 3. d

RESOURCES

Sequence and Process: So Cheesy

OBJECTIVES

- Students will learn how to make a homemade pizza pie.
- Students will explain the sequence and process of making pizza.
- Students will use information from the text to create and solve theme-based word problems.

KEY VOCABULARY

- **regulated (p. 11)** controlled or supervised by an authority by means of rules
- **commercial (p. 12)** used to describe a product or service that can be bought by the public
- **age (p. 13)** to acquire a desirable quality by standing undisturbed for some time

READ & DISCUSS

Have students read the article to answer the questions below.

1. What is a sourdough starter?
2. How does Popine grow?
3. How does homemade pizza help to save the planet, improve your diet, and save money?
4. What ingredients are needed for Kira's homemade pizza sauce?
5. Why does Kira say that her family has some firm pizza opinions?

SKILL FOCUS: Studying Process

INSTRUCT: This article presents the reader with detailed information about the steps taken in the pizza-making process. Present the *Sequence and Process: So Cheesy* graphic organizer and tell students they will use it to record details about each step of the process. They will need to consult the article and thoroughly explain each step.

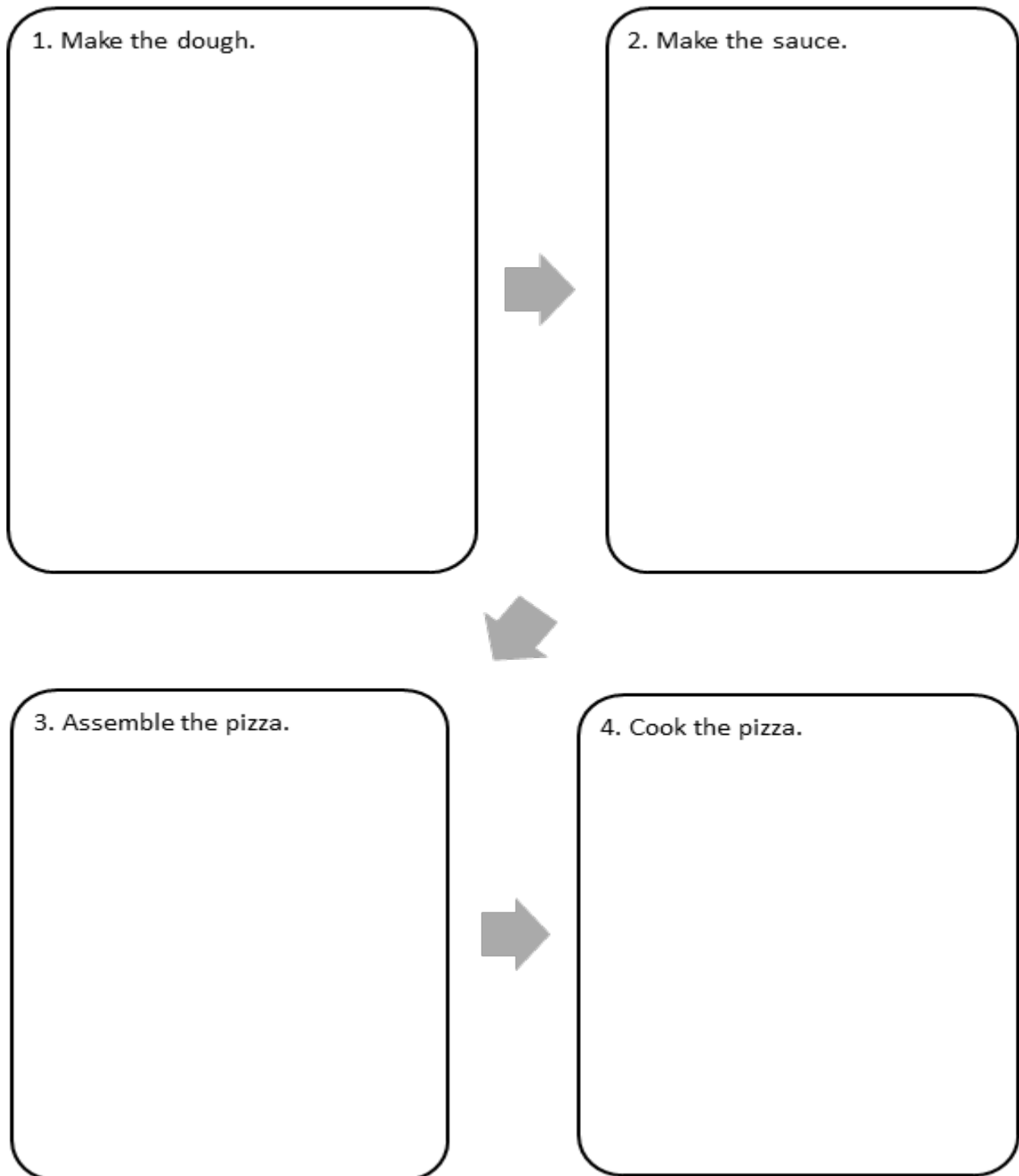
ASSESS: Have student pairs exchange completed worksheets, provide feedback, and discuss the question at the bottom of the worksheet.

EXTEND

Mathematics Post the following word problem: *Kira makes 3 pizza pies and cuts each into 8 equal slices. After her friends come over to eat, only 5 slices are left. What fraction of the total amount of pizza has been eaten? Calculate the answer showing your mathematical thinking.* (Answer: 19/24) There is a multitude of mathematical information in this article (measurements, percentages, rounding). Challenge students to create their own theme-based word problem for a friend to solve.

So Cheesy

Sequence and Process: Use information from the article to thoroughly explain each step.



DISCUSS: Could someone actually make a pizza using your completed worksheet as a recipe?

Muse® Teacher Guide: March 2022

The Case of Something I Ate

pp. 18–21, Expository Nonfiction

Who doesn't love eating raw cookie dough? Students may think twice about taking in a spoonful after reading this article, which chronicles the investigation of a 2009 outbreak of E. coli across the United States.



RESOURCES

Structure and Function: Cell Structure

OBJECTIVES

- Students will learn how food poisoning outbreaks are investigated.
- Students will study the structure and function of an E. coli bacterium cell.
- Students will use two different formats to create a questionnaire.

KEY VOCABULARY

- **implicated** (p. 19) shown to be connected to or involved in something bad, such as a crime
- **tactics** (p. 20) specific actions that are planned and used to achieve particular results
- **gastronomic** (p. 20) related to the art or science of eating fine food

ENGAGE

Conversation Question: What do you know about food?

Give students ten minutes to list everything they've had to eat and drink in the past week. Tell them to be as specific as they can by including brand names and the stores and restaurants where food items were purchased. Discuss the task. Was it difficult for students to remember certain meals and identify brands and where foods were purchased? Introduce "The Case of Something I Ate" and tell students they will be reading about the challenges of identifying a contaminated food source.

INTRODUCE VOCABULARY

Display the following statements and underline the key vocabulary terms. Review how to infer the meanings of words by using context clues and background knowledge. Then have partners work together to determine the meaning of each word. Reveal definitions.

1. On Friday, he was implicated in the robbery and arrested.
2. Learning some test-taking tactics may improve your grade.
3. Food trucks in New York sell a variety of gastronomical treats.

READ & DISCUSS

Post the questions prior to reading. Read the article aloud, pausing when answers are revealed. Encourage students to elaborate.

1. How did the epidemic officer know that the clusters of outbreaks were related?
2. Explain the process that the scientists at PulseNet used to analyze the data.
3. What was the problem with the questionnaire that investigators were using to pinpoint the source of contamination? What was the solution?
4. List three typical ways you could get a bout of food poisoning.
5. How did investigators conclude that the untreated flour in the cookie dough was responsible for the E. coli outbreak?

SKILL FOCUS: Structure and Function

INSTRUCT: Review the article with students and remind them that scientists were able to determine that the E. coli bacterium was causing the outbreak of illness. Present the *Structure and Function: Cell Structure* worksheet and tell students they will need to use information from the article and other sources to more closely study the harmful E. coli cell.

ASSESS: Collect graphic organizers and review for accuracy.

EXTEND

Language Arts The article makes distinctions between a questionnaire with predetermined specific questions and a questionnaire with open-ended questions. Have students imagine that they are investigators trying to help a friend find an item that he or she lost a few weeks ago. Have them design a questionnaire of each type and determine which would work better for this purpose.

Cell Structure

Structure and Function Use information from the article and other sources to define each part of the E. coli bacterium. Then use article page 21 to help you accurately draw and label the cell and its structures.

cell wall:
cytosol:
DNA:
flagella:
outer membrane:
periplasmic space:
pili:
plasma membrane:
ribosomes:

Draw and label the E. coli bacterium cell in the space below.

The Food Stylists' Art

pp. 42–45, Expository Nonfiction

There are times when an advertisement for a certain food can make your mouth water. Readers will learn that their eyes may be deceiving them, thanks to the talent of a professional food stylist.



RESOURCES

Problems and Solutions: Arts & Tricks

OBJECTIVES

- Students will learn about the unconventional methods food stylists use to create visually beautiful food.
- Students will analyze the problem-and-solution relationships in the article.
- Students will develop food strategies to waste less and/or give more.

KEY VOCABULARY

- **competitive** (p. 43) relating to a situation in which people are trying to win a contest or be more successful than others
- **persnickety** (p. 43) giving a lot of attention to details that are minor or not important
- **taxing** (p. 45) requiring a lot of effort or energy

ENGAGE

Conversation Question: What do you know about food?

Have the students share what they know about taking a good photograph of an object. Discuss the following elements: positioning, lighting, angles. Next, ask them how photographing food might present additional challenges. Inform them that food stylists are considered artists in their field. Tell students they will learn more about this profession when they read “The Food Stylists’ Art.”

INTRODUCE VOCABULARY

Post and review the three vocabulary words. Inform students that all of these terms can be found in “The Food Stylists’ Art.” Have them use the title and the vocabulary terms to predict the content of the article. Revisit the predictions after the reading and challenge students to write a brief summary of the article, incorporating all three words.

READ & DISCUSS

Reinforce comprehension of the concepts in the article by using the following prompts to direct discussion.

1. What is food styling?
2. How have NYC advertisers involved City Harvest in an effort to avoid wasting food prepared for a photo shoot?
3. What does a food stylist pack for location shooting?
4. Why is the recent trend to show real, honestly prepared foods?
5. What are some of the personality traits and attributes that are helpful to have as a food stylist?

SKILL FOCUS: Problems and Solutions

INSTRUCT: Inform students that they will be rereading the article with a partner and highlighting passages that depict how problems that arise with particular foods are solved by the food stylist. Distribute copies of the *Problems and Solutions: Arts & Tricks* graphic organizer and tell students they will be responsible for identifying the stylist’s problems and describing the solutions.

ASSESS: Collect the worksheets to evaluate the students’ ability to clearly identify the problem-and-solution relationships. Ask students to discuss what other food issues are mentioned in the article.

EXTEND

Philanthropy On page 44 of the article it states that a food rescue organization called City Harvest collects leftovers from the food shoots and distributes them to the homeless. Have students research food rescues and food banks in their own city or town. How can your class/school be part of the solution? Instruct students to create a realistic plan for wasting less or giving more. Challenge students to follow through and set their plan in motion.

Arts & Tricks

Problems and Solutions Review the article and locate the passages about each food listed below. Explain the problems experienced when using the food on a photo shoot. Then describe the food artist's solutions.

Food	Problem	Solution
ice cream		
turkey		
cereal in milk		
dry cornflakes		