



# Map Your Meal



**Grade Levels & Subject:** Grades 6-8 English Language Arts

**Lesson Duration:** 40-50 minutes

## OBJECTIVES

**Objective:** Students will analyze the origins of the ingredients in a quesadilla dish and write an informational piece summarizing their findings.

Food Education Standards:	Content Area Standards:	This lesson also aligns to:
<p>FES 3: Food and the environment are interconnected.</p>	<p>CCSS.ELA-LITERACY.RI.6.7 Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p> <p>CCSS.ELA-LITERACY.RI.7.2 Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.</p> <p>CCSS.ELA-LITERACY.RI.8.2 Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.</p>	<p>CASEL Skills:</p> <ul style="list-style-type: none"> <li>• Social Awareness</li> <li>• Self-Awareness</li> <li>• Relationship Skills</li> </ul> <p>Learning for Justice Social Justice Standards:</p> <ul style="list-style-type: none"> <li>• Identity 3: Students will recognize that people’s multiple identities interact and create unique and complex individuals.</li> <li>• Diversity 6: Students will express comfort with people who are both similar to and different from them and engage respectfully with all people.</li> </ul>

## LESSON SYNOPSIS

Students will learn how food and the environment are interconnected by tracing the origins of ingredients in a recipe and investigating how to eat seasonally in their hardiness zone.

## LESSON PREPARATION

Prep Steps	Materials
<ul style="list-style-type: none"> <li>Decide if students will be researching independently or in groups.</li> <li>Pilot Light Video: Colorful Quesadillas with Chef Beth Somers: <a href="https://vimeo.com/420788928">https://vimeo.com/420788928</a></li> <li>Worksheet below - could be printed or recreated in your preferred online learning platform</li> <li><a href="#">Exit ticket</a> - could be printed or recreated in your preferred online learning platform</li> <li>Post any links you want students to access in your preferred online learning platform</li> <li>Preview and cue up any supplemental videos you are choosing to show and have them ready to play and project (see Lesson Activities)</li> </ul>	<ul style="list-style-type: none"> <li>Writing and drawing utensils</li> <li>(If available) Student devices to access internet resources</li> <li>World map for reference</li> </ul>

## VOCABULARY

- crop [ krop ] (noun) - a plant or animal product that is grown and harvested
- frequently [ free-kwuhnt-lee ] (adverb) - happening often

## LESSON ACTIVITIES

### INTRODUCTION (5 - 10 minutes)

- Post or share the following question - have students journal as they enter the classroom, discuss verbally, or embed into your classroom's routine:
  - Think of a meal that you have had in the last week. Record the meal as well as 3 -4 ingredients from the meal.
- Ask 2 – 3 students to share out their meal and ingredients.
- After each student shares out a meal, ask other students if they can name the country or continent from which one of the ingredients is from and ask why they think it is grown there.
- Explain that, today, students will be exploring where and when produce (fruits or vegetables) is grown.
- Watch the “Colorful Quesadillas” video (<https://vimeo.com/420788928>).
- Share the website, <https://blog.ciat.cgiar.org/origin-of-crops/>. Give students 3 - 5 minutes to view the interactive map and find the country/continent of the ingredient(s) they listed.. Ask students if they were surprised by anything they found.

7. Ask students to locate where sweet potatoes originate as well as one of the ingredients from the meal they shared.
8. Have 3 – 4 students share their findings.
9. Ask students why they think sweet potatoes often grow in warmer places. Introduce the idea that there are different growing zones in the world.  
*Students should see that sweet potatoes grow in Central America and Mexico. The ground never freezes in this location, so root vegetables can grow year-round. Students may know that sweet potatoes can grow in other colder hardiness zones (but seasonally rather than year-round).*

## INSTRUCTION (20 minutes)

1. Using the colorful quesadilla video, have students list the different types of produce (including herbs) that you would use in that recipe.
2. Share the resources below with students:
  - “Growing Guides” by The Old Farmer’s Almanac  
<https://www.almanac.com/gardening/growing-guides>
  - “What are Plant Hardiness Zones?” by The Old Farmer’s Almanac  
<https://www.almanac.com/content/plant-hardiness-zones>
  - USDA Plant Hardiness Zone Map by USDA  
<https://planthardiness.ars.usda.gov/PHZMWeb/Default.aspx#>
3. Have students summarize their findings about what a plant hardiness zone is as well as identifying the hardiness zone they live in.
4. Ask 3 – 4 students to share their definition of hardiness zone. Be sure all students have the correct hardiness zone.
5. Thinking about hardiness zones, discuss: Can a food like strawberries be grown year-round in Illinois? Why is it more costly to the environment for people who live in Illinois to eat strawberries year-round? How can people adjust their eating habits to better support the environment? (To eat seasonally!)
6. Using the list of produce, ask students to identify the hardiness zone that each type of vegetable and herb grows best in. Then, ask students to circle or highlight the vegetable/herb in the recipe if it could be grown in the zone where you live.
7. Ask students to select two ingredients from the list that do not grow in your zone. Research how those ingredients get from their zone to your zone. Ask students to summarize their research.
  - a. *Teacher note: If students are researching independently, they could focus on one ingredient. If students are working in small groups, they could divide the ingredients and share their findings with each other.*
8. Ask students to reflect on their findings. Are there zones that are better growing zones than others? Why? Were you surprised that two types of produce were able to grow in the same zone? Why? What does this tell you about the zone you live? What does this tell you about the groceries you may find in your grocery store?
9. (OPTIONAL): If the fruits and vegetables cannot be grown in the hardiness zone where you live, you can research the closest geographical place that would be suitable. You can also research or hypothesize how ingredients that cannot be grown locally make their way to grocery stores.
10. Next, write a summary of your findings. Where can the ingredients in the quesadilla recipe be grown? If they cannot be grown near you, why not? Make sure to include in your writing:

- **Introduction:** Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when using to aid in comprehension.
- **Facts and details that relate to the topic:** Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- **Transition Words:** Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).
- **Use specific vocabulary related to the topic:** Use precise language and domain-specific vocabulary to inform about or explain the topic.
- **Establish and maintain a formal style.**
- **Conclusion:** Provide a concluding statement or section related to the information or explanation presented.

## CLOSING (teacher discretion)

1. Students can share their writing with their peers for feedback.
2. Optional discussion: Why is wasting food grown in a different hardiness zone that is transported to you more costly to the environment than if it was grown in your own hardiness zone?

## CONSIDERATIONS (What adaptations are needed for diverse learners and/or varying dietary needs?)

- Be familiar with your school and/or district's allergy policies as well as any food restrictions for the students in your particular class.
- Students can work in partners or small groups to conduct their research and share their writing with one another.

## ASSESSMENTS

- [Classroom to Cafeteria Exit Ticket](#)
- Have students read their stories to each and practice providing constructive feedback.
- Students can present their written stories or compile them into a class book.

## EXTENSION IDEAS

- Check out Pilot Light's [Food Education Center](#) for free food education lessons and resources for home and school.
- **Content Integration:**
  - Literacy: Write a letter or comic from the perspective of a fruit or vegetable that is growing in the correct hardiness zone, or from one that is NOT in the proper growing conditions.
  - Math: Collect data about how long different crops take to reach maturity (ie - carrots take a lot longer to grow than radishes). Use the data sets in word problems or to make comparisons.
  - Science: How does extreme weather impact crop production? What is the human impact on our growing environment?
  - Social Studies: Map the hardiness zones and growing areas of different crops.

- SEL: Practice gratitude for all the farmers and laborers who ensure that we have food from different zones and seasons available to us.
- Suggest related texts for this lesson and topic by emailing [info@pilotlightchefs.org](mailto:info@pilotlightchefs.org)!

## REFLECTION AND NEXT STEPS

Activities that worked	Topics to revisit	Community extension opportunities

## RECIPE FROM VIDEO

Video: “Colorful Quesadillas” - <https://vimeo.com/420788928>

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 demonstrated by the teacher virtually/in person, sent home to families, or used for reference.

### Colorful Vegetable Quesadillas

Ingredients:

- 1 sweet potato, peeled and cut into 1/2 inch cubes
- 2 red or yellow Peppers, seeded and cut into 1/2 inch cubes
- 1 yellow onion, peeled and cut into 1/4 inch cubes
- 1 cup canned black beans
- 1/2 teaspoon cumin
- 1/4 teaspoon dried oregano
- pinch dried red chili pepper or a dash of hot sauce
- salt, as needed
- pepper, as needed
- 1-1/2 cups shredded cheddar
- 8 corn or flour tortillas

Preparation:

1. In a fry pan, heat 1 tablespoon of vegetable or canola oil over medium heat until the oil shimmers.
2. Add the diced sweet potato, peppers, onions, cumin, oregano, hot sauce, salt and pepper and stir everything well to combine.
3. Cook over medium heat, stirring occasionally, until the onions are translucent, and the sweet potatoes are easily pierced with a fork, about 10 minutes. If the onions start to burn or stick to the bottom of the pan, add a few tablespoons of water and reduce the heat to medium-low.
4. Stir in the black beans and cook to heat through, about 2-3 minutes.
5. Taste and add extra salt and pepper if needed.
6. Remove the filling from the fry pan, and clean the fry pan and return to the stove.
7. To build a quesadilla, top one tortilla evenly with 2 tablespoons of shredded cheese, then with 1/4 of the vegetable filling, and then another 2 tablespoons of cheese. Sandwich with a second tortilla. Repeat.
8. Heat a fry pan over medium heat. Carefully slide 1 quesadilla into the hot pan, and cook for 1-2 minutes or until the bottom is slightly crispy.
9. Using a pancake turner or other spatula, carefully flip the quesadilla and cook an additional 1-2 minutes or until the cheese is melty. Remove from the pan and slice into quarters. Repeat.
10. Serve alone or with toppings like chopped tomatoes, salsa, sour cream, or avocado.

**The student worksheet below can be copied and used into any platform used to share work with students.**



Name: \_\_\_\_\_

## Map Your Meal

We are going to explore how food and the environment are interconnected by tracing the origins of ingredients in our recipe and investigating how to eat seasonally.

1. What is a memorable meal you've had in the last week? Write down 3-4 ingredients from that meal. Using your background knowledge, where do you think those ingredients were originally grown?

Ingredients	Where were they grown?
1.	
2.	
3.	
4.	

2. Watch the "Colorful Quesadillas" video (<https://vimeo.com/420788928>).
3. Where do you think the sweet potatoes were first grown? Why do you think that?

4. Explore the following resources:
  - "Growing Guides" by The Old Farmer's Almanac  
<https://www.almanac.com/gardening/growing-guides>
  - "What are Plant Hardiness Zones?" by The Old Farmer's Almanac  
<https://www.almanac.com/content/plant-hardiness-zones>
  - USDA Plant Hardiness Zone Map by USDA  
<https://planthardiness.ars.usda.gov/PHZMWeb/Default.aspx#>



Write a brief summary of what a hardiness zone is and be sure to identify the hardiness zone that you live in.

5. Identify the other types of produce from the quesadilla recipe. In what hardiness zone are those ingredients grown?

Ingredient	Hardiness Zone

6. Circle or highlight the ingredients that can grow in your hardiness zone.

7. Select two ingredients from the list above that do not grow in your hardiness zone, how do they get to you? Research and summarize your findings.





# Map Your Meal

8. Now, write a summary of your findings about hardiness zones when looking at the ingredients found in the quesadilla recipe. Where can the ingredients in the quesadilla recipe be grown? If they cannot be grown near you, why not?

Be sure to include the following in your paragraphs:

- o **Introduction:** Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when using to aiding comprehension.
- o **Facts and details that relate to the topic:** Develop the topic with facts, definitions, concrete details, quotations or other information and examples related to the topic.
- o **Transition Words:** Link ideas within and across categories of information using words, phrases and clauses (e.g., in contrast, especially).
- o **Use specific vocabulary related to the topic:** Use precise language and domain-specific vocabulary to inform about or explain the topic.
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9. Share your work with a peer. Below, have your peer provide feedback on your paragraphs.

10. Discuss with your peer and write down your thoughts: Why is it important for people to know about their hardiness zone? Think about it in terms of both growing food and choosing the foods we eat.