



Food Education Standard # 5: Food impacts health.

We Can't Make It, So We Have to Take It: Why Vitamin C Is Essential

Grade Levels & Subjects: Grades 6 – 8 English Language Arts

Learning + Food Objectives:

Students will investigate the benefits of Vitamin C in our overall health and wellness. They will demonstrate their understanding through the creation of an original Vitamin C recipe.

Common Core Standards:

Common Core English Language Arts

Reading informational texts to create final project

CCSS.ELA-LITERACY.RI.7.1

Citing evidence to support analysis

CCSS.ELA-LITERACY.RI.7.7

Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject

CCSS.ELA-LITERACY.SL.7.4-5

Include multimedia and visuals in presentations to clarify claims and present claims and findings to an audience



MATERIALS NEEDED

- Student Worksheet (Attached below)

CLASSROOM PROCEDURE

INTRODUCTION (10minutes)

1. Direct students' attention to the Vitamin C Fact or Fiction Bell Ringer section of the student worksheet.
2. Ask students to determine if the statements related to Vitamin C are fact or fiction.
3. Teachers may wish to use a virtual option:
 - a. Chat storm: ask students to type "fact" or "fiction" as a statement is displayed or
 - b. Google Form Responses: Create a form where students' responses can be recorded and displayed
4. Explain that while the correct answers won't be shared now, there will be time to discuss responses later during a partner activity.

INSTRUCTION (90-120 minutes)

1. Help students access the article "Vitamin C: Everything You Need to Know" and direct their attention to the corresponding section on the students worksheet.
2. Explain that the class will read the article aloud and answer questions together as they read. Teachers should feel free to substitute with a different article.
3. After answering the prompts for the first article together, divide students into 4 groups.
 - a. Assign 1 article (from additional resources section of lesson) per group and then, direct students' attention to the Vitamin C Article Notes section of the student worksheet.
4. Inform student groups that they need to complete the Vitamin C Article Notes table after reading their assigned article. Allow about 12-15 minutes to complete this task.
5. Next, explain to students that with a partner they will use the Venn Diagram in the student worksheet to compare the two articles they've read today. Then, pairs should answer the reflection questions listed.
 - a. Use the Venn Diagram to write 1 similarity between the two articles (middle) and 1 fact from each article in each of the outer circles.
 - b. Based on what you read, why is it so important for us to have vitamin c in our diet?
 - c. What are some foods you already eat that contain vitamin C?
 - d. Go back to the Vitamin C Fact or Fiction bell ringer. Review your responses to determine how many you have right now that you've read more about Vitamin C. Record how many you got right out of 5.
6. Ask a few volunteers to share one interesting thing that they've learned so far about Vitamin C.
7. Explain that with their partner, they will now use what they've learned to create 1-2 Vitamin C recipes. Direct students' attention to the Vitamin C Recipe section of the student worksheet.
8. Review the guidelines and rubric before releasing students to work on their own. Tell them that you will share the slide template with them momentarily.
 - a. The recipes will be part of a class Vitamin C Slideshow (Google Slides)
 - b. Each pair should read at least 1 additional article to gather more information about Vitamin C
 - c. The recipes can be a food or beverage for any time of day (breakfast, lunch, dinner, or snack). Use the two sample recipes as a guide.
 - d. Recipes should include the amount of Vitamin C in their recipe (milligrams) using the chart in the What Are the Best Foods for Vitamin C? Article.

- e. Write a Recipe Reflection that briefly explains how you created your recipe and why it's important to add Vitamin C to your diet.
9. Allow students time to work on their Vitamin C Notes and Vitamin C Recipe.
10. On presentation day, review the presentation order and the rubric.
11. Inform students that while listening to the other teams, they should write a 1-sentence feedback statement for their peers. Teachers may wish to write this sample feedback statement on the board or big chart paper: *I really appreciated that your recipe included more than 1 Vitamin C food.*

CLOSING (teacher discretion)

1. Direct student to the "Vitamin C: 1-2-3 Exit Activity" on the student worksheet.
2. Instruct them to complete the table before turning in their student worksheet.

ADDITIONAL RESOURCES

- "Vitamin C History Timeline" from the Science Learning Hub - <https://www.sciencelearn.org.nz/resources/1690-vitamin-c-history-timeline>
- "Vitamin C" from Britannica.com - <https://www.britannica.com/science/vitamin-C>
- "The Benefits of Vitamin C and Why Your Child Needs It" by The Cleveland Clinic - <https://health.clevelandclinic.org/the-benefits-of-vitamin-c-why-your-child-needs-it/>
- "What Are the Best Foods for Vitamin C?" by Medical News Daily - <https://www.medicalnewstoday.com/articles/325067>
- "Vitamin C: Everything You Need to Know | Food" by Anna M. Miller - <https://health.usnews.com/wellness/food/articles/vitamin-c-everything-you-need-to-know>

The student worksheet below can be printed or copied onto
any online learning platform.



Vitamin C Student Worksheet

Directions: Complete the sections of this worksheet when directed by your teacher.

Vitamin C Fact or Fiction Bell Ringer

Directions: Answer the prompts below the table using “fact” or “fiction”. You’ll discuss your responses with a partner later in the class.

1		Our bodies produce Vitamin C.
2		Vitamin C cures all diseases.
3		There are clear signs when someone isn’t getting enough Vitamin C.
4		Only citrus fruits have Vitamin C.
5		Vitamin C is good for your eyes.

Everything You Need to Know About Vitamin C Article Notes

Directions: Read the article and complete the questions below.

Question	Answer
What is the scientific name of Vitamin C and what is the best way to consume it?	
Of the benefits of Vitamin C listed in the article, which 2 are the most important in your opinion?	
How much Vitamin C should we have per day?	
Which foods are rich in Vitamin C?	



Vitamin C Article Notes

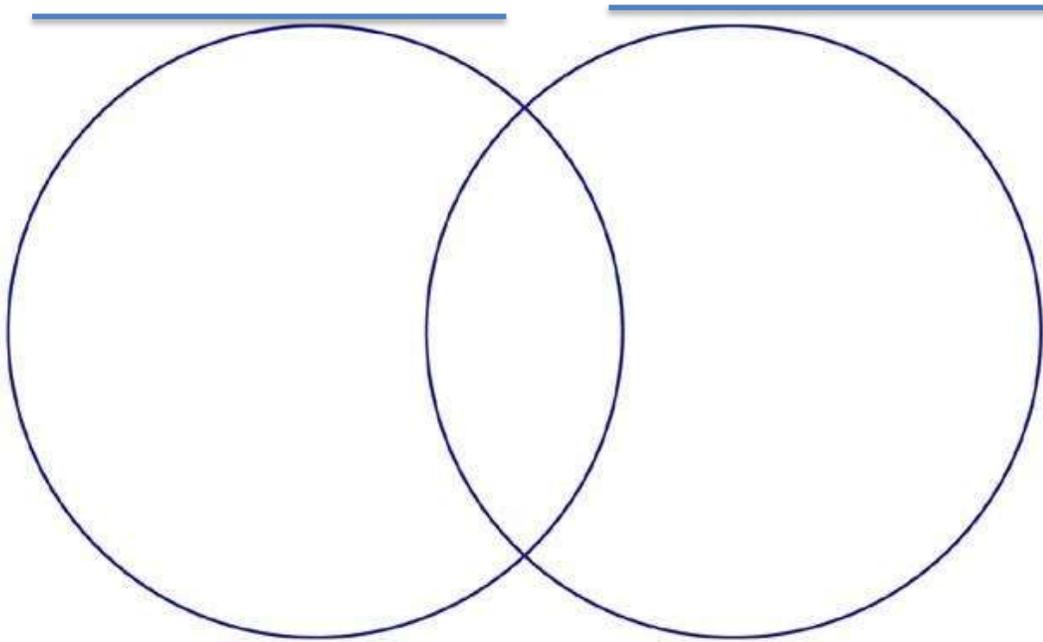
Directions: Read the article assigned to your group and then, do the questions below.

Question	Answer
Title of the Article and Link (web/url address)	
What is the main idea or purpose of this article?	
List 3 facts about Vitamin C included in the article.	



Analyzing Vitamin C Information

Directions: Based on the two articles you just read, complete the Venn diagram and questions below. Use the Venn diagram to write 1 similarity between the two articles (middle) and 2 facts from each article in each of the outer circles.



Based on what you read, why is it so important for us to have Vitamin C in our diet?	
What are some foods you already eat that contain Vitamin C?	
Look back at your answers on the Vitamin C Fact or Fiction bell ringer. How many of your responses are correct? How many did you get wrong? Record your results in the box.	

Vitamin C Recipe Project



Directions: Review the guidelines and rubric below for the Vitamin C Recipe Project.

Vitamin C Recipe Project Overview

- All recipes will be part of a class **Vitamin C Slideshow** (Google Slides)
- Read at least 1 additional article to gather more information about Vitamin C before creating your recipe with your partner.
- The recipes can be food or beverages for any time of day (breakfast, lunch, dinner, or snack).
- Use the two sample recipes as a guide.
- Recipes should include the amount of Vitamin C in their recipe (milligrams) using the chart in the [What Are the Best Foods for Vitamin C?](#) Article.
- Write a **Recipe Reflection** that briefly explains how you created your recipe and why it's important to add Vitamin C to your diet.

Vitamin C Action Plan Rubric

To meet the expectations of this research project, students must:	Score (100 total points)
Include all the required elements (research notes + recipe + reflection) - 50 points	
Cite sources used - 30 points	
Present information clearly, concisely, and logically - 10 points	
Add creative elements to the final digital presentation of the project - 10 points	
TOTAL POINTS	



Directions: After reading 1-2 more articles about Vitamin C, fill in the table below.

Vitamin C Article Notes	
Article 1: [write the title & web address]	
Notes from the Article	
(optional) Article 2: [write the title & web address]	
(optional) Notes from the Article	

Vitamin C Recipe Brainstorming

Directions: Use the space below to brainstorm your recipe and to calculate milligrams of Vitamin C in your recipe ingredients. Include your best estimate in your final recipe. Two sample recipes are included after the brainstorming space.



Sample Recipes

Directions: Use these recipes as a guide for creating your own Vitamin C Recipe.

Sample Recipe 1 - Vitamin C Salad	Sample Recipe 2 - Vitamin C Breakfast Omelet & Fruit
<p>Serves: 1-2 people</p> <p>Ingredients: broccoli cauliflower Brussel sprouts Kale tomato shredded cabbage Red bell peppers Yellow bell peppers snow peas strawberries oranges kiwi cantaloupe honeydew melon guava papaya black currants lemon extra virgin olive oil balsamic vinegar Red cider vinegar (optional) Optional if needed: other leafy greens (spinach or containers of "Spring Mix" type greens)</p> <p><u>Steps for making the meal:</u> Step 1: Gather ingredients for their VC Salads Step 2: Try to add at least three items to the salad that you have never tried before. Step 3: For salad dressing, olive oil or coconut oil can be used as well as the balsamic vinegar. Step 4: Some people mix olive oil with a touch of red cider vinegar to make a salad dressing (show how this is done if necessary). Feel free to mix and match as they experiment with creating their salad. Step 5: Toss salad and serve.</p>	<p>(Contributed by an 8th Pilot Light student)</p> <p>Serves: 1-2 people</p> <p>Ingredients: 3 Eggs 1/2/ cup red bell pepper 1/2 cup green bell pepper 1/2 cup tomato juice or 1 cup finely diced tomatoes 1/2 cup of shredded cheese (cheddar, Colby jack, or mozzarella) salt and pepper (to taste) (Other optional seasonings can be sprinkled in as well) Cooking oil and non-stick cooking spray. 1/3 - 1/2 each of the following: guava, papaya, and grapefruit 1 cup mango 1 teaspoon of peeled ginger 1 tbsp honey 1 tbsp of melted coconut oil filtered water or coconut water</p> <p><u>Steps for making the meal:</u> Step 1: Spray a small non-stick pan with cooking spray, add oil and heat over medium-high heat. Step 2: In a bowl crack three eggs, salt, chopped up red and green bell peppers, and tomato juice (or tomatoes). Stir. Step 3: Once all contents are stirred properly pour in the egg mixture into hot pan. Reduce heat to medium-low heat. Let the omelet cook. Step 4: Sprinkle shredded cheese, salt and black pepper to add more taste to the omelet. Lift the omelet from the sides and drizzle one tablespoon of oil under edges. Set heat to low and let the omelet cook till it is completely set and cheese is melted. Fold over using a spatula and serve. Step 5: Take a nonstick pan and spray with cooking spray. Add a tablespoon of oil. Keep on medium-low heat. Step 6: Cut broccoli into proportional pieces. Put into a separate pan. Add salt on to broccoli. Let it cook on medium-low heat. Step 7: When finished cooking place broccoli next to omelet. Step 8: Cut guava, papaya, and grapefruit into proportional pieces. Place in small bowl on the side or next to the omelet. Step 9: Peel and dice mango and ginger. Step 10: Put the mango and ginger into a blender. Add 1-1/2 cups of water (coconut water may be used also). Add 1 tbsp honey. Add one tbsp of melted coconut oil. Step 11: Blend all ingredients together. Step 12: Pour into a glass cup and serve. Step 13: Enjoy the tomato flavored omelet with bell peppers, the side of cooked broccoli, the guava, grapefruit, and papaya fruit dish, and our very own mango and ginger smoothie.</p>



Vitamin C: 1-2-3 Exit Activity

Directions: Thinking about what you learned about Vitamin C during this lesson, respond to the prompts in the table.

3 new ideas that you learned from your research	
2 ideas from your research that you already knew	
1 idea from your research that you found confusing or wanted to know more about	