CLASSROOM CONNECTIONS

TASTEFUL HARVEST

Healthy Nutrition and Learning Success

The classroom is one of the best places to teach students about the importance of eating healthy and being physically active. Studies show a relationship between good nutrition and academic performance. Tasteful Harvest connects with core curricula and links the classroom, cafeteria, and families.

PEPPERS

Nutrition Facts	
Serving Size:	1 medium pepper (148g)
Calories 25	Calories from Fat 0
	% Daily Value
Total Fat 0g	0%
Saturdated Fat 0g	0%
Trans Fat 0g	0%
Cholesterol 0mg	0%
Sodium 40mg	2%
Total Carbohydrate 6g	2%
Dietary Fiber 2g	8%
Sugars 4g	
Protein 1g	
Vitamin A 4%	Calcium 2%
Vitamin C 190%	Iron 4%

EXPLORING OKLAHOMA PEPPERS: TASTE TESTING

What You Will Need (per group of 6-8 students):

- 3 bell peppers (1 each of green, yellow/orange, red)
- Paring knives and cutting boards

Activity:

- Make predictions if green, yellow, and red peppers will smell and taste different.
- Explore the look, feel, and smell of each bell pepper. Record observations.
- Cut open peppers. Record observations of color, smell, and texture of the interior.
- Draw cross-section diagram and compare to printed botanical image. Label parts.
- Taste each bell pepper and record observations.
- Discuss predictions and observations. Take a vote of students' favorite variety.
- Compare and contrast the nutrients using the Nutrition Facts labels.

Adapted from: https://harvestofthemonth.cdph.ca.gov/documents/Summer/021712/ED_Peppers_Newsletter_Final.pdf

COOKING IN THE CLASSROOM

PICO DE GALLO

Ingredients:

3 pounds ripe tomatoes, chopped
4½ cups chopped onion
1 cup chopped fresh cilantro
3 small jalapeño peppers, seeds removed, chopped
6 tablespoons lime juice
6 cloves garlic, minced
¾ teaspoon salt
Baked tortilla chips
Small cups

Directions

1. Combine all ingredients (except chips) in a medium bowl.
2. Spoon into cups.
3. Serve with chips

Adapted From: https://harvestofthemonth.cdph.ca.gov/documents/Summer/021712/ED_Peppers_Newsletter_Final.pdf

ABOUT PEPPERS

- Peppers love warm soil and cannot tolerate frost.
- Bell peppers belong to a different family from that of black pepper, but they belong to the same family as the pepper from which chili powder is made.
- The pepper plant is a member of the Solanaceae or “nightshade” family, which also includes tomatoes and potatoes.
- Sweet peppers were not widely grown until after World War II. Today, there are more than 200 varieties. When left to ripen, green peppers mature into red, yellow (or orange), and purple peppers with various levels of sweetness.

STICK TO THE FACTS

- One bell pepper has more vitamin C than an orange or a cup of strawberries.
- Peppers are warm-season crops, sensitive to freezing, and do not grow well in cold, wet soil.
- It is best to germinate seeds indoors in late winter and then transplant to the garden in late spring.
- Since bell peppers have seeds and come from flowering plants, they are actually fruits, not vegetables.
- Bell peppers are not grown seasonally so they can be enjoyed year round!
- Bell peppers are native to Central and South America.

STUDENT DISCOVERY

1. Compare the Nutrition Facts labels for sweet and hot peppers, both red and green varieties. What nutrients are the same for all peppers? What nutrients are different? Which variety has the most vitamin A? List the excellent sources for both sweet red and green peppers. Why does the nutrient content of a sweet pepper increase as it ripens (becomes red)?
2. What is vitamin B6? What role does it play in the body’s functions?
3. What happens if you are deficient in vitamin B6?
4. What happens if you have too much vitamin B6?
5. Make a list of foods that are excellent (>20%) or good (10-19%) sources of vitamin B6.
6. What are capsaicinoids? What part of the pepper contains capsaicin? Why are some peppers hotter than others? How is the “hotness” level measured?
7. What unit is used to measure the amount of capsaicin or “heat” in peppers?
8. What is the best way to get relief after eating a very hot pepper: drink water or milk? Why?

LESSON ACTIVITIES

The Night Shades - 1-4th
https://agclassroom.org/ok/lessons/lessons/nightshade.pdf

Peppers - K-8th
https://www.ode.state.or.us/wma/nutrition/snp/bell_peppers_classroom_connections_2.pdf

SCHOOL GARDEN: PEPPER PLANTS

If your school has a garden, here is an activity you may want to implement. Look for donations to cover the cost of seeds, tools, irrigation systems, electric pumps, and any salary incurred by garden educators or others.

Site: Plant peppers in well-drained soil that is rich in organic matter in a location that receives full sun. To minimize insect and disease problem, use a three year rotation for the location of peppers and related crops (eggplant, tomatoes, potatoes) in your garden space.

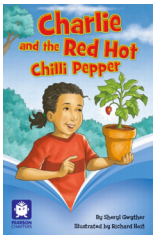
When to plant: If you are growing your own transplants, start pepper seeds 8 to 10 weeks before their planting-out date, which is generally 2-3 weeks after the last spring frost date. Don't put peppers out too early; young plants exposed to overly cold conditions may survive, but they won't bear well. Bottom heat will speed seed germination, and the young seedlings will appreciate warmer temperatures for growing on. If you can, give them daytime temperatures of 70-75 degrees F, with a drop to 65 degrees F at night. Use lukewarm water when you water. And give them plenty of bright light as soon as germination occurs.

Planting: Make sure transplants are well hardened off before they go out in the open garden. Transplant when the soil is warm, all danger of frost is past, and night temperatures stay reliably above 50 degrees F, generally 2-3 weeks after the last spring frost date. Gardeners in short season areas can use black plastic to pre-warm the soil and give plants some extra protection by setting them in a cage enclosed in clear plastic or row cover fabric. Be sure to vent plants on warm days and remove the covers as the weather warms.

Care: Keep soil moisture consistent. Peppers won't tolerate soggy soil, but they do need consistent moisture in well-drained soil to do their best. Fluctuations in soil moisture can lead to problems like blossom end rot, which causes dark, leathery spots to form on the blossom end of the fruit.
Make sure plants are well-fed, but don't overdo the nitrogen. Peppers need a balanced supply of nutrients, but too much nitrogen will encourage lots of leaves and fewer fruits. Start out with soil that's been amended with compost; then sidedress plants lightly with a balanced fertilizer as they come into flower and again about three weeks later.

For more gardening ideas, visit: www.kidsgardening.org

LITERATURE CONNECTIONS



Charlie and the Red Hot Chilli Pepper
by Sheryl Gwyther

This book can be purchased from this website:
https://www.pearson.com.au/products/?sq=charlie+and+the+red+hot+chilli+peppers

HISTORY OF PEPPERS

- The Mayans rubbed hot peppers on their gums to stop toothaches.
- The Incas believed that eyesight was improved by eating chilies.
- In New Mexico, chili is spelled c-h-i-l-E. In 1983, New Mexico Senator Pete Dominici made it official by putting it in the Congressional Record. He rose and addressed the United States Senate, declaring that even though the word was "chili" in the dictionary , New Mexicans refused to spell it that way, and so, he said, he was standing before the full Senate, with the backing of his New Mexican constituents, to state unequivocally that the dictionary was wrong.
- Inhabitants of the New World had chili peppers and the makings of taco chips 6,100 years ago, according to new research by the Smithsonian Institute that examined the bowl-scrapings of people sprinkled throughout Central America and the Amazon basin. The chili pepper is the oldest spice in use in the Americas, and one of the oldest in the world.
- Columbus discovered peppers in the West Indies and mistook them for spices. He brought them to Europe where they spread throughout Europe, Africa, and Asia.

FARM TO ECE
EARLY CARE EDUCATION

Rainbow of Peppers

1. Show the students photos of green bell peppers, red and yellow bell peppers and chili peppers. Explain that bell peppers are sweet while chili peppers are spicy.
2. Ask them what colors they see (green, red, yellow).Tell the class that peppers can also be purple and orange.
3. Ask the class if they have seen peppers at the store or at a farmers' market. Explain that at farmers' markets, there are usually many more different kinds and colors of peppers than at the store and that they are fresher since they come straight from the farm where they grew.
4. Ask the class about the different ways peppers can be eaten–Sliced for dipping or eaten plain, in salsa, stir-fry, salad, chili, stuffed...
5. Talk about how peppers can be called either a fruit or a vegetable (fruit because of how it grows from a flower, vegetable because of how it is prepared). Ask the class how they think peppers grow–in a tree like oranges? On a vine like tomatoes? In the ground like carrots? (They grow on small plants).
6. Start a class Rainbow of Colors Chart for vegetables. Peppers can be put in each of the columns (green, red, purple, orange, yellow).
7. Ask the class what other vegetables are found in each color. This chart can be used over the course of the school year and can be added on to whenever the class talks about vegetables.

CAFETERIA CONNECTION

- Work with your school nutrition staff to feature peppers.
- Dry hot peppers by stringing them on a "ristra." Display in the cafeteria.
- Conduct a taste test of raw and cooked bell peppers.
- Offer samples in the lunch line or salad bar.
- Print menu slicks and feature peppers in the monthly school menu.
- Highlight every time it is in a school meal.