

Some Like 'Em Hot!

Skills: Physical Education, Social Studies, Language Arts, Mathematics, Spanish, Social Studies

Objective: Students will learn about the chili pepper.

Background

Have you every wondered why we have two food products that go by the name “pepper?” We have garden peppers and black pepper. Some garden peppers are sweet, and some are hot, but they are all variations of the plant capsicum anuum (**kap** sih kum **ann** you um). Garden peppers are native to South America, Central America and the West Indies. The garden peppers are in the family Solanaceae (so **lăn** ā see ē), the nightshade family. They are related to tomatoes, potatoes, and eggplant. Garden peppers are a fruit because they come from the flower of the vine.

Black pepper is the oldest and the most widely used spice in the world today. It is made from ground peppercorns, the small round fruit of the plant Piper nigrum (**nī** grūm). The black pepper plant is a woody vine native to the Malabar Coast of India. A whiff of black pepper can make you sneeze.

These two types of pepper share the same name, and both are spicy or hot, but they have nothing else in common. They are in two different plant families, and they come from lands that are thousands of miles apart.

So why are they both called pepper? History tells us the story. When Christopher Columbus discovered the New World, he was actually looking for a new trade route to the Far East. Spices like black pepper were valuable trade items. When Columbus discovered the Americas, he found the native people of the West Indies using a fruit that tasted fiery and spicy. He thought it seasoned food like the black pepper from India. He introduced this “new pepper” to the rest of the world, and it has changed the world of cooking forever.

The United States has 125,000 acres of chilies in cultivation. Presidents George Washington and Thomas Jefferson both grew chilies on their farms. Oklahoma harvests approximately 876 acres of chili peppers every year. These peppers are used for food and for products like pepper spray and deep heating muscle ointment.

JUST WHERE DO PEPPERS COME FROM?

P.A.S.S.

GRADE 3

Social Studies—1.1

Reading—6.1,2abc

Writing—2.3ab

Languages—Novice Level:
1.1; 2.1,2

Math Process—1.1,2,4,5

Math Concept—3.2ab; 4.1a;
5.2b

Physical Education—1.1,5,9;
3.3; 5.3

GRADE 4

Social Studies—1.1; 2.2; 5.5

Reading—5.1ac,2acd

Writing—2.4

Languages—Novice Level:
1.1; 2.1,2

Math Process—1.1,2,4,5

Math Concept—1.1; 3.1;
4.4bc

Physical Education—5.2; 6.3

GRADE 5

Social Studies—2.1,2

Reading—5.1ab,2bd

Writing—2.5,6acd

Languages—Novice Level:
1.1; 2.1,2

Math Process—1.1,2,4,5

Math Concept—2.2a; 3.2b;
4.5; 5.1d

Physical Education—4.1;
5.3,5; 6.3

GRADE 6

Social Studies—1.3; 2.3; 3.2

Reading—5.1b,2d

Writing—2.7

Math Process—1.1,3,4,5; 3.3;
4.1

Math Concept—3.3

Cinco de Mayo

Cinco de Mayo is a date of great importance for the Mexican and Chicano communities. It marks the victory of the Mexican Army over the French at the Battle of Puebla. It took place on the 5th of May, 1862. Although the Mexican army was eventually defeated, the “Batalla de Puebla” came to represent a symbol of Mexican unity and patriotism. With this victory, Mexico demonstrated to the world that they were willing to defend themselves from any foreign intervention.

Cinco de Mayo is celebrated on a much larger scale here in the US than it is in Mexico. People of Mexican descent in the US celebrate this day with parades, mariachi music, folklorico dancing, and lots of food!

Although the garden pepper originated in the Americas, today it is grown in many other parts of the world and is often named for the ethnic origin of the particular variety. A very small, extremely hot pepper developed in Southeast Asia is called “Thai Hot” or “Thai Dragon.” The country of Hungary has developed a group of waxy-skinned varieties known as the Hungarian wax pepper. The Hungarian wax pepper and many other varieties have been bred so they no longer contain the heat of earlier varieties. These are known as sweet peppers. The common bell pepper and the banana pepper are other examples of sweet peppers.

NUTRITION OF A PEPPER:

Each chili pepper has 37 calories. They are among a few foods that temporarily speed up the body’s metabolic rate. For every 1½ teaspoon of peppers you eat, you burn off 45 calories. The chili pepper is also believed to increase the appetite and aid in digestion. Peppers are high in Vitamin C, Vitamin A, fiber, and carbohydrates. They have no fat or cholesterol.

HOT!!! HOT!!! HOT!!!!

What makes hot peppers burn? Chili peppers have between 60 and 200 varieties, and their heat ranges from very mild to fiery hot. The compound in these peppers that makes the heat is called capsaicin (kap say sin). Some people think the heat is in the seeds, but that is not entirely true. There is a little in the seeds, but most of the capsaicin is located in the fleshy tissue where the seeds are attached. This is called the “placenta.” The seeds will absorb capsaicin from the placenta during handling. When handling hot peppers, you should wear plastic gloves. Do NOT touch your face or rub your eyes. Pepper juice can cause painful burns.

Many ethnic dishes have hot peppers as an ingredient. So if you bite into a pepper, how do you cool your mouth down? You could reach for a starchy food such as corn chips, beans, or bread. Or you might take a swallow of milk, ice cream or yogurt. A substance in dairy products called casein (kay sin) will disrupt the burning sensation. Grabbing a spoonful of sugar or a bit of salt and lime juice will also do the trick. But the one thing you DON’T do is reach for the water. It only fans the flames!

FIESTA!!!!

The chili pepper is a Mexican tradition. Several types of peppers are used as spices. These spices are grown in the *huerta* (wear tã), or garden. Serrano (seh-RAH-noh) peppers are hot and the most popular. The jalapeño peppers that are common in the US are not as popular in Mexico.

Social Studies/Language Arts

1. Read and discuss background.
2. Students locate the following on a world map:
 - India—Where Christopher Columbus found peppercorns
 - West Indies, Central America, South America—Where Columbus

found chili peppers

Thailand—Home of the “Thai Dragon” peppers

Hungary—Home of the Hungarian wax pepper

3. Students use encyclopedias and online search engines to write research papers on peppers used in other cuisines around the world.
4. Students use encyclopedias and online search engines to write research papers on other New World foods that Columbus discovered on his voyages to the Americas.

Math

1. Students plan a fiesta.
 - Students determine how much they would need to increase the recipe for burritos, based on the number of guests they expect for the fiesta.
 - Students plan a seating arrangement for the fiesta. How many tables to seat a certain number of people, and which arrangement is best for the room. (square = 4, rectangle = 6) Should they be moved together or stay separate (Do you lose seating when tables are pushed together?).
 - Make a list of supplies needed and research prices to develop a budget.

Languages

1. Review Spanish vocabulary words at right.
 - Hand out the Cinco de Mayo word match.
 - Students use prior knowledge to match as many Spanish words as possible with the correct English translation.
 - Students use a Spanish-English dictionary to translate words they are unable to identify.

Physical Education

1. Use directions included with this lesson to direct students in playing games.

Vocabulary (answers to Word Match)

bailes—dance
blanco—white
burrito—tortilla folded over a filling
caliente—hot
cinco—five
comida—food or meals
fiesta—party or festival
huerto—garden
maracas—instrument made from gourds
Mayo—May
Mexico—country in Central America
musica—musica
piñata—Paper-Mache figure filled with toys or candy
risa—laughter
rojo—red
sombrero—broad-brimmed hat
verde—green

Name _____

Fiesta

To explore the foods of Mexico, you can be a part of the fiesta meal.

1. Wash hands for food safety
2. Introduce measuring ingredients with the burritos ingredients

Burritos

Ingredients:

- 1 Small flour tortillas
- 2 T. Refried beans—heated
- 1 T. Chopped tomatoes
- 1 T. Chopped bell peppers
- Shredded lettuce
- Grated Cheddar cheese

Directions: Spoon refried beans onto tortilla. Add other ingredients to taste. Roll tortilla into burrito shape. Eat!

Canned Tomato Salsa

Ingredients:

- 1 15 oz. can diced tomatoes, drained, liquid reserved
- ½ Medium yellow onion, finely chopped
- 1 Green bell pepper, finely chopped
- 1 Clove garlic, minced
- 2 T Cilantro, chopped
- ½ t Cumin
- Juice of ½ lime

Directions: Mix together all ingredients. Add some reserved tomato liquid to thin if desired. Cover and refrigerate 30 minutes to 24 hours to allow flavors to blend. Serve with low-fat chips or vegetable sticks.

You can increase or decrease the amount of any ingredient to adjust the flavor to your liking. Add jalapeño pepper to increase the heat.

Name _____

Some Like 'Em Hot

Draw lines to match the Spanish words with their English translation.

Spanish	English
huerto	red
musica	music
bailes	broad-brimmed hat
piñata	tortilla folded over filling
maracas	white
burrito	dance
comida	five
fiesta	May
sombrero	party or festival
rojo	garden
verde	country in Central America
blanco	instrument made from gourds
risa	green
Mexico	laughter
calienté	food or meals
cinco	hot
Mayo	paper-mache figure filled with toys or candy

For answers, see "Vocabulary."

Some Like 'Em Hot!

Red Hot Relay

Objective: Aerobic/Flexibility/Strength/Teamwork

Equipment: Hula Hoops and Bean Bags, (Foam Discs are optional)

Activity Instructions: The students will divide into equal teams. Each team will be given a chili pepper bean bag (foam disc) and a hula hoop. Matching colors would be great.

1. Each team member, standing behind a line, will throw the bean bag into the hula hoop. Determine an appropriate distance based on age & ability. The bean bag must land inside the hoop.
2. The member will run and get the bean bag if it does not land inside the hoop and bring it back behind the line and toss it again until it lands inside the hoop.
3. The bean bag can then be handed to the next person in line. Each team member must participate.

Habanero Hula Hoops

Objective: Aerobic Exercise

Equipment: Hula Hoops, CD Player and Mariachi Music

Activity Instructions:

1. Place hula hoops in a large circle.
2. Have one less hoop than people.
3. Have participants walk around at a brisk pace while music plays.
4. When the music stops, one person should jump into each hoop.
5. The student who doesn't get into a hoop will leave the game, taking one hoop with them.
6. Repeat the process until only one person is left.
7. The students on the sidelines can work with the hula hoops they brought out of the game.

Some Like 'Em Hot

Hot Pepper!! Hot Pepper!!

(Patterned after the classic childhood game, Hot Potato)

Materials: 1 Bean Bag (red or made with chili pepper material, if possible)

1. All children will gather in a small circle around the classroom.
2. A child with the bean bag begins by saying “Hot Pepper to _____ (names another child)
3. He/she then throws the “Hot Pepper” to the child named. The designated child must catch the bag by any means that they have.
4. When they catch it, they continue with “Hot Pepper to _____.

Should they miss it, they are out of the game but they can choose who throws the “Hot Pepper” next.

5. As the game progresses, and the participant numbers grow small, the circle becomes broader until you have a winner.

Chili Pepper/Bell Pepper

(Patterned after the classic childhood game, Red Light/Green Light)

Desks will need to be placed in rows with aisles.

1. The leader must be facing a wall with his/her back to the participants. The number of participants will be equal to the number of aisles you have in the room.
2. The leader calls out “Bell Pepper” (the variety is predominately green in color) and turns his/her back to the participants. They advance toward the base and only freeze when they hear the leader call out “Chili Pepper”. If they have any movement spotted by the leader when he/she turns, or if they accidentally come in contact with a surface in the aisle, they are out of the game.
3. The winner is the first one to reach the front base line (generally a wall of the classroom) and they are then the leader and a new group of participants from the class is assigned.