

All About Peanuts & Peanut Butter!

SOCIAL STUDIES & GEOGRAPHY

*Social Studies & Geography Lesson
Teacher's Guide/Activity Sheets 1 & 2*

The History of the Peanut

The peanut plant probably originated in Brazil or Peru, although no fossil records exist to prove this. Peanuts were grown as far north as Mexico by the time the Spanish began their exploration of the New World. The explorers took peanuts back to Spain, where they are still grown today. From Spain, traders and explorers took peanuts to Africa and Asia. Africans were the first people to introduce peanuts to North America. Eventually, peanuts were planted throughout the Southern United States. Today, peanuts are one of America's favorite foods.

Presentation Techniques:

Review the lesson above and develop your lesson plan based on appropriate material for your age group or grade level.

Discussion Questions:

Yes or No

- The peanut plant probably originated in Brazil or Peru.
- Spanish explorers took peanuts to Spain.
- From Spain, traders and explorers took peanuts to China.
- Peanuts are one of America's favorite foods.
- Peanuts arrived in North America with the Pilgrims.

Teacher/Student Activities:

- Starting with Brazil and Peru and ending with America, highlight the order of the peanut's journey.
- Assist students in finding Brazil, Peru, Mexico, Spain, Africa, Asia, and the United States on a world map.
- Plot the journey of the peanut from Brazil and Peru to America in order on a world map.

Parent/Child Activity:

- Using an encyclopedia, have students work with parents to find one of the countries on the peanut's journey and find a distinctive characteristic about the country and illustrate it.

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Where in the U.S. Do Peanuts Grow?

In the United States today, ten states grow most of the peanut crop. Georgia grows nearly half of all the peanuts grown in the United States, followed by Texas, Alabama, North Carolina, South Carolina, Oklahoma, New Mexico, Virginia and Mississippi. The peanut producing states are grouped into three regions. The first region is Alabama-Georgia-Florida-Mississippi or the Southeast region. The second is the Texas-Oklahoma-New Mexico or the Southwest region. And the third is the North Carolina-South Carolina-Virginia or the Virginia-Carolina region. About 68 percent of all the peanuts grown in the United States are grown in the Southeast region, about 18 percent are grown in the Southwest region and the remaining 13 percent are grown in the Virginia-Carolina region.

Presentation Techniques:

Review the lesson above and develop your lesson plan based on appropriate material for your age group or grade level.

Discussion Questions

- Do we live in a peanut-growing state?
- Which state grows the most peanuts?
- How many major peanut-growing states are there?
- What are the three peanut-growing regions?
- Which region grows the most peanuts?

Teacher/Student Activities:

- Locate the ten peanut-producing states on a map.
- Identify the three peanut-growing regions on a map.
- Have students find the capital of each peanut-growing state.

Parent/Child Activity:

- Using the U.S. map, have students work with parents to find ten other states not already mentioned above and list a food that might grow in each of them.

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The History of Peanut Butter

There is evidence that ancient South American Inca Indians were the first to grind peanuts to make peanut butter and that Dr. John Harvey Kellogg (of cereal fame) invented a version of peanut butter in 1895. A St. Louis physician may have developed a version of peanut butter as a protein substitute for his older patients who had poor teeth and could not chew meat. Peanut butter was first introduced at the Universal Exposition (World's Fair of 1904) in St. Louis, Missouri.

Presentation Techniques:

Review the lesson above and develop your lesson plan based on appropriate material for your age group or grade level.

Discussion Questions:

Yes or No

- North American Indians were the first to grind peanuts to make peanut butter.
- Dr. John Harvey Kellogg was a candy maker.
- Peanut butter was first sold at a baseball game.
- Peanut butter is a type of cereal.
- Peanut butter does not contain protein.

Teacher/Student Activities:

- Ask students what they can do to avoid developing poor teeth.
- Have students name at least three things they might see at a fair.
- Use activity sheet #9 provided to make peanut butter.

Parent/Child Activity:

- Have students work with parents to locate St. Louis on a map.

LANGUAGE ARTS

*Language Arts Lesson
Teacher's Guide/Activity Sheets 3 & 4*

The No-Nut Peanut

Many are surprised to discover that the peanut is actually not a nut at all. In fact, it is a legume and belongs to the pea family. The peanut probably has been given more names throughout history than any other food. Some nutty names given to the peanut include: goober, groundnut, monkey nut, earthnut and ground pea, just to name a few. Today in Spain, the peanut is called Mani, pronounced *my-knee*. In Greece the peanut is called Fystiki, pronounced *fee-stee-kee*. In France, the peanut is called Cacahuete, pronounced *ka-ka-wet*. In Germany, the peanut is called Erdnuss, pronounced *aird-noose*. And in Russia, the peanut is called Zemlyanoy Grek, pronounced *zem-ya-noy arek*.

Presentation Techniques:

Review the lesson above and develop your lesson plan based on appropriate material for your age group or grade level.

Discussion Questions:

- Is the peanut really a nut or is it a legume?
- Name at least two other names for the peanut.
- How do you say peanut in Spanish?
- How do you say peanut in Greek?
- How do you say peanut in French?

Teacher/Student Activities:

- Teach students to say peanut in all five languages. Turn the peanut names into a simple song or chant to help them remember.
- Have the class work together to develop their own name for the peanut.
- Have students locate Spain, Greece, France, Germany, and Russia on a world map.

Parent/Child Activity:

- Have students work with parents to find three other types of legumes.

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LANGUAGE ARTS

*Language Arts Lesson
Teacher's Guide/Activity Sheets 3 & 4*

The Four Basic Types of Peanuts

Although peanuts come in many varieties, there are four basic types grown in the United States today. They are: Runner, Spanish, Valencia and Virginia. Each type is unique in size, shape and flavor. Runner peanuts are known for their uniform kernel size. Over half of the Runner peanuts grown in the United States today are used to make peanut butter. Runner peanuts are mainly grown in Alabama, Florida, Georgia, Mississippi, Oklahoma and Texas. Spanish peanuts have the smallest kernels of the four types and are covered by a distinctive reddish-brown skin. They are primarily used to make peanut candies. Spanish peanuts also have higher oil content than the other three types, making them a good choice for making peanut oil. Spanish peanuts are mostly grown in Oklahoma, Texas and New Mexico. Valencia peanuts are known for having three or more kernels to a pod and for their bright red skin. They are the sweetest of the four types. Valencia peanuts are mainly roasted and sold in-shell or boiled. They are grown mainly in New Mexico. Virginia peanuts have the largest kernels of the four types. They are mainly roasted and sold both in-the-shell and out-of-the-shell. Virginia peanuts are grown mainly in North Carolina, South Carolina and Virginia.

Presentation Techniques:

Review the lesson above and develop your lesson plan based on appropriate material for your age group or grade level.

Discussion Questions:

- What are the four types of peanuts?
- What is unique about each type of peanut?
- What type of peanuts are used mainly to make peanut butter?
- What type of peanuts are used mainly to make candy?
- What type of peanuts are grown mainly in New Mexico?

Teacher/Student Activities:

- Bring in one or two types of peanuts for students to see and taste.
- Show students several products containing peanuts and ask them to guess what type of peanuts are used to make it.
- Have students shell a peanut to see the inside.

Parent/Child Activity:

- Have students work with parents to find a food item at home that contains peanut oil.

MATH

*Math Lesson
Teacher's Guide/Activity Sheets 5 & 6*

Approximating: Weights & Measures

It takes approximately 20 candy-coated peanuts to fill a small bag of candy. That same amount weighs approximately 50 grams. It also equals approximately 3 tablespoons as well as $\frac{1}{4}$ cup.

It takes approximately how many in-shell peanuts laid end-to-end to equal one foot? That same amount equals approximately 12 inches. Have students guess how many and then measure.

It takes approximately how many shelled peanuts laid end-to-end to equal one foot? That same amount equals approximately 12 inches. Have students guess how many and then measure.

Presentation Techniques:

Review the lesson above and develop your lesson plan based on appropriate material for your age group or grade level.

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SCIENCE

Science Lesson

Teacher's Guide/Activity Sheets 7 & 8

How the Peanut Plant Grows

Unlike other nuts, peanuts do not grow on trees. The peanut is unusual because it grows on a plant which flowers above the soil but fruits below it. A farmer usually plants his peanuts in April or May. Once planted, peanut seeds grow into a green, oval-shaped-leaf plant which reaches about 18 inches in height when fully mature. Small yellow flowers appear in the lower part of the plant as it begins to grow. These flowers pollinate themselves and then lose their petals as the fertilized ovary begins to enlarge. The enlarged ovary, called the peg, grows down and away from the plant forming a small stem which extends to the soil. The peanut embryo is the tip of the peg, which penetrates the soil. The embryo begins to develop once underground, growing into a peanut. From planting to harvesting, the growing cycle of a peanut takes four to five months.

Presentation Techniques:

Review the lesson above and develop your lesson plan based on appropriate material for your age group or grade level.

Discussion Questions:

Yes or No

- Peanuts grow on trees.
- The peanut plant flowers above the ground but fruits below the soil.
- A peanut plant has square-shaped leaves.
- Peanut flowers are red.
- The growing cycle of a peanut takes four to five months.

Teacher/Student Activity:

- Have students plant a peanut. Use the directions provided below.

Materials:

Raw, unroasted, shelled peanuts

Flower pot or container with drainage hole

Sandy or sandy loam soil

- Soak peanuts overnight.
- Fill pot with soil to one inch below the rim.
- Plant three peanuts 1 to 1 1/2 inches deep and cover firmly with soil but do not pack.
- Keep soil moist, but not wet.
- Maintain a temperature of 65 degrees or above.
- Peanuts should sprout in about five to eight days. Continue to keep the plant in a warm room and exposed to direct sunlight as much as possible.
- The peanut plant will begin to flower within 45-50 days after sprouting.
- The plant will actually produce peanuts between 125-150 days.

Parent/Child Activity:

- Have students work with parents to find their exact height and weight in four and five months.

SCIENCE

Science Lesson

Teacher's Guide/Activity Sheets 7 & 8

The Father of the Peanut

George Washington Carver began his research into peanuts in 1903 at Tuskegee Institute in Alabama. The talented botanist recognized the value of peanuts as a cash crop and proposed that peanuts be planted as a rotation crop in farmers' fields. This procedure was especially valuable in the Southeastern cotton growing areas when boll weevils threatened cotton crops. Farmers across the region listened to the great scientist and peanut production flourished. Additional research into the peanut helped Carver to discover over 300 uses for the peanut, including shaving cream, leather dye, coffee, ink, shoe polish and more. For his work in promoting the peanut and its cultivation, George Washington Carver is today respectfully known as the father of the peanut industry.

Presentation Techniques:

Review the lesson above and develop your lesson plan based on appropriate material for your age group or grade level.

All About Peanuts & Peanut Butter!

Discussion Questions:

- Where did Carver study the peanut?
- What is the name of the insect that threatened the cotton crop?
- About how many uses for the peanut did Carver find?
- Name something Carver made from peanuts.
- Why is Carver considered the father of the peanut industry?

Teacher/Student Activities:

- Have students research Carver in an encyclopedia and find a picture of him.
- Have students make a picture using cotton as an element in it.
- Have students look up a boll weevil in the encyclopedia and draw a picture of it.

Parent/Child Activity:

- Have students work with parents to research what a botanist is and learn three things that they do.

HEALTH & NUTRITION

Health & Nutrition Lesson

Teacher's Guide/Activity Sheets 9, 10 & 11

Protein Lesson

Peanuts contain an incredible 26 percent protein. They fulfill approximately 30 percent of a 4-6 year old's and 26 percent of a 7-10 year old's Recommended Daily Allowance per serving. A peanut butter sandwich, an orange and glass of milk provide approximately 75% of a 4-6 year old's and 87% of a 7-10 year old's daily protein requirement. Protein is a valuable source of energy. Peanuts contain 6 essential vitamins including Vitamin E, folate, riboflavin, thiamin, niacin, and Vitamin B6. Vitamins are necessary to maintain good health and a strong immune system. Peanuts also contain 7 essential minerals including phosphorus, iron, magnesium, potassium, zinc, copper, and calcium. Minerals are necessary for cell growth within the body. Peanuts are cholesterol free and low in saturated fat. For all these good reasons, peanuts are often referred to as nutrition in a nutshell.

Presentation Techniques:

Review the lesson above and develop your lesson plan based on appropriate material for your age group or grade level.

Discussion Questions:

- Peanuts contain what percent protein?
- What are vitamins necessary for?
- What are minerals necessary for?
- Do peanuts have cholesterol?
- Are peanuts high in saturated fat?

Teacher/Student Activities:

- Have students find protein on a peanut butter nutrition label.
- Have students find a vitamin on a nutrition label.
- Have students find a mineral on a nutrition label.

Parent/Child Activity:

- Have students work with parents to locate and clip the nutrition label from one of their favorite foods and see if it contains protein.

HEALTH & NUTRITION

Health & Nutrition Lesson

Teacher's Guide/Activity Sheets 9, 10 & 11

Peanuts & The Food Guide Pyramid

The United States Department of Agriculture developed The Food Guide Pyramid to assist Americans of all ages in making healthful food choices. There are six food groups in The Pyramid including the Fats, Oils & Sweets Group; the Milk, Yogurt & Cheese Group; the Vegetable Group; the Bread, Cereal, Rice & Pasta Group; the Fruit Group; and the Meat, Poultry, Fish, Dry Beans, Eggs & Nuts Group. Peanuts and peanut butter fit into the Meat, Poultry, Fish, Dry Beans, Eggs & Nuts Group. According to the Pyramid, Americans young and old should consume two to three servings from this group each day. Serving sizes for each group vary on The Food Guide Pyramid, but the serving size for peanuts is one ounce and the serving size for peanut butter is two tablespoons.

All About Peanuts & Peanut Butter!

Presentation Techniques:

Review the lesson above and develop your lesson plan based on appropriate material for your age group or grade level.

Discussion Questions:

Yes or No

- The Food Guide Pyramid helps us make healthy food choices.
- There are nine food groups on The Food Guide Pyramid.
- Peanuts and peanut butter belong to the Fruit Group.
- Americans young and old should eat eight servings from the Meat, Poultry, Fish, Dry Beans, Eggs & Nuts Group.
- Two tablespoons is the correct serving size for peanut butter.

Teacher/Student Activities:

- Have students draw a picture of their favorite food and help them find the food group where it belongs.
- Work with students to help them measure the recommended serving size of both peanuts and peanut butter.
- Have students locate each of the food groups on The Food Guide Pyramid sheet.

Parent/Child Activity:

- Assign each student a food group and have students and parents work together to find a food that fits into that group.

ART

*Art Lesson
Teacher's Guide*

Our Peanut Product Collage

A collage as defined by Webster is "an art form in which bits of objects are pasted on a surface." The word itself is French in origin.

- Have students bring in the labels from their favorite products containing peanuts and/or peanut butter and use them to make a collage on your classroom bulletin board.

Peanut Plant: Picture Perfect

A dimension as defined by Webster is "measurements in length, width and depth." The word itself is Latin in origin.

- Have students draw a picture of a peanut plant and have them paste in-shell peanuts on the plant to create another dimension.

Peanut Crafts

- Have students draw, color and cut out an elephant. Have them glue peanuts in the elephant's tummy to show what food elephants love.
- Have students paint and then string in-shell peanuts to make a necklace.
- Have students glue peanuts to thumb tacks to make unique bulletin board pins.
- Have students write their initials using in-shell peanuts and glue them to a paper and decorate it.
- Have students trace their hand and glue peanuts on it to create a "handful" of peanuts.
- Have students use in-shell peanuts and scraps of ribbon, paper and glue to make peanut animals.
- Have students colorfully paint a rock and glue in-shell peanuts to the top to make a nutty paper weight for someone that they love.
- Have students draw, color and cut out peanut characters and glue them to a stick to make puppets.
- Have students paint and glue an in-shell peanut to a pencil to make a nutty writing tool.

Presentation Techniques:

Review the lesson above and develop your lesson plan based on appropriate material for your age group or grade level.

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MUSIC

Baa, Baa, Black Sheep
Mother Goose

Moderately

mp

mp

mp

Peanuts

Peanuts, peanuts are a healthy treat
and they're lots of fun to eat.

There's a secret I must tell
They grow inside a little shell.

Sing to the tune of Baa, Baa, Black Sheep above.

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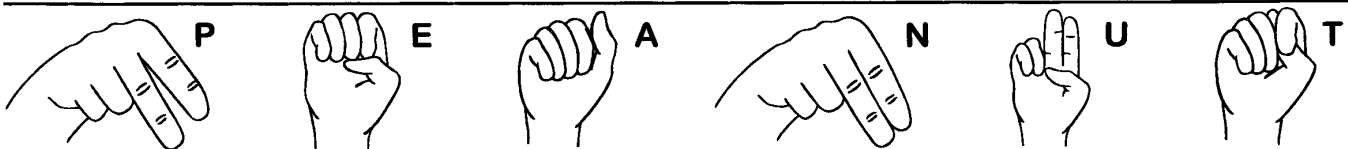
MUSIC

Oh Dear! What Can the Matter Be?
Mother Goose

Moderately bright

P-E-A-N-U-T-S: The Signing Song

Peanuts
P-E-A-N-U-T
Peanuts
They're good for you and me
Peanuts
They're really crunchy too
I can spell Peanut, can you?



Sing to the tune of *Oh Dear! What Can the Matter Be?* above.

All About Peanuts & Peanut Butter!

PEANUT RESOURCE READING LIST

• ***From Peanuts to Peanut Butter***

by Melvin Berger

• ***The Plants We Eat***

by Millicent Selsam

• ***Make Me a Peanut Butter Sandwich and a Glass of Milk***

by Ken Robbins

• ***Vegetables in Patches and Pots***

by Lorelie Miller Mintz

• ***Peanuts***

by Franklin Watts

• ***American Heart Association Kids' Cookbook***

editor: Mary Winston

• ***Peanuts***

by Millicent Selsam

• ***The Picture Life of Jimmy Carter***

by Barbara Walker

• ***A Pocketful of Goobers, A Story About George Washington Carver***

by Barbara Mitchell

• ***George Washington Carver-The Peanut Scientist***

by Patricia & Frederick McKissak

• ***George Washington Carver***

by Suzanne Coil

• ***How Do They Grow It?***

by George Sullivan

• ***George Washington Carver***

by Gene Adair

