

The STORY OF PEANUTS

Activity Book

Hello!

Meet Michael, Anndria, Matthew, and Monroe **Newhouse**. They live on a 1,000 acre **farm** in Donley County, **Texas**.

The Newhouse family raises **peanuts**, cotton, wheat, hay, and cattle on their farm in the **Texas Panhandle**. They farm alongside their parents and grandparents. They are excited to share more about the **story of peanuts**, and how they start on their **farm** and end up on **your plate**!

Did you know?

There's enough **peanuts** in **one acre** to make around 35,000 peanut butter sandwiches!

Texas ranks in the top five in the U.S. for peanut production. Texas is the only state to grow all **four** types of peanuts!

Texas
PEANUTS

all about the

PEANUT PLANT

fill in the blank

The Newhouse family raises _____, cotton, wheat, hay and cattle on their 1,000 acre farm in the **Texas** Panhandle.

Texas ranks in the top _____ in peanut production.



PEANUT
POD
PEG
VALENCIA
PLANT
STEM
RUNNER
TRACTOR
HARVEST
FLOWER
ROOT
COMBINE
SHELLER
LEGUME
SPANISH
SEED
FARMER

Did you know? One acre is around the size of a football field. How many yards would 1,000 acres include?
Hint: One football field is 120 yards.

The **peanut** plant flowers above the ground, but fruits **below the ground**. What part of the plant is the fruit?

Roots transport water, minerals and nutrients to the plant. They also serve as an anchor. Have you seen an anchor to a ship?

word search

E	N	U	E	E	V	L	O	R	B	N	D	L	P
A	G	E	M	N	S	A	D	E	E	S	W	E	R
E	E	P	D	O	D	S	L	E	T	F	H	G	E
S	P	E	M	E	M	L	I	E	S	S	H	U	R
T	N	A	I	N	M	R	E	N	N	U	R	M	O
E	T	N	T	V	T	D	E	R	E	C	N	E	O
M	T	U	H	S	I	N	A	P	S	N	I	L	T
N	N	T	C	E	E	F	L	O	W	E	R	A	E
G	A	L	O	N	L	V	P	P	R	I	P	R	R
H	L	L	S	I	R	I	R	H	E	R	N	N	G
O	P	E	E	B	S	T	R	A	C	T	O	R	I
E	F	A	R	M	E	R	R	P	H	E	C	D	A
O	G	L	A	O	P	O	D	T	F	V	M	O	M
V	R	F	O	C	R	S	H	E	L	L	E	R	P

Vocabulary

legume: a type of plant grown in a pod. Legumes also put nitrogen back into the soil. Nitrogen is important for plant health.

pollination: transfer of pollen from anther of the flower to the stigma. **Peanuts** are self-pollinating, meaning they do not require bees, insects, or wind to carry pollen from one plant to another!



on the farm

PEANUT HARVEST

Families like the Newhouses plant peanuts in the spring and harvest in the fall. A **peanut's** growing cycle takes 4-5 months, (around 140-150 days) between **planting** seeds and when peanuts are ready to **harvest** and made into peanut butter and other products.

Planting to Harvest

Number the following steps in the correct order, 1-8, to share the life cycle of a peanut from planting to harvest.

- **Peanut seedlings sprout around 10 days after planting and grow to be 18 inches tall.**
- Once ready for harvest, the digger pulls up the plants and lays them back down in the row to dry.
- **Peanut plants start to flower around day 40.**
- After flowering, the budding ovary (called the peg) grows and forms a stem.
- **Farmers plant peanut seedlings when the soil is warm and there's no danger of frost (usually around April-May).**
- After the plants dry, the combine separates peanuts from the vines.
- **A truck then hauls the peanuts to market, where they are sold and made into products.**
- Four to five months after planting, peanuts are ready to harvest.



Digger:
a piece of equipment that lifts peanuts from the soil allowing peanuts to dry (cure).

Shaker or Picker: a machine that separates the peanut pods from the rest of the plant.

Farm to Peanut Butter

Shelled peanuts are roasted, cooled, and skins are blanched. Peanuts are ground, usually in two stages, to create a smooth, even texture. To make crunchy peanut butter, peanut granules are mixed back into the creamy mixture. Do you like creamy or crunchy?

blanched: immersed into boiling water

Peanut butter was first introduced at the St. Louis World's Fair in 1904. It became a staple protein in the two world wars. Dr. John Henry Kellogg invented a version of peanut butter in 1895. It is believed that soon after, a local doctor created a version for older patients who had a hard time chewing, but needed protein.

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on the farm

TECHNOLOGY

What types of **jobs** are involved in farming and raising food, that require **technology**?

Vocabulary

sustainability on the farm: farming in a way that protects the environment, (soil, water, wildlife), and makes the best use out of nonrenewable resources.

economy: the process or system by which goods and services are produced, sold, and bought in a country or region.

GPS: The Global Positioning System provides users with navigation and location.

fill in the blank

Peanut **farmers care** for the land and invest in _____ practices to protect the environment.

From the root to the hulls, **no part** of the peanut plant goes to _____.

Peanuts play an important role in the **economy**-- locally, nationally, and across the . _____.

Peanut farmers use **GPS technology** and _____ to manage all aspects of their farm.

word bank

waste smartphones
conservation world

writing prompt

Share in your own words how you think farmers may use technology to grow peanuts. Use the words **GPS** and **machinery** in your summary:

Farmers care for the land with future generations in mind.

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THEN AND NOW

peanut history

Peanuts were first introduced to North America in the **early 1700s**.

1861-1865: Civil War
Peanuts became a common crop following the Civil War.

1900s: equipment was invented for planting and harvesting peanuts.

Early 1900s:
Peanuts were first grown in Texas.

How did these inventions help farmers?

Today peanuts are a valuable cash crop. Peanuts, peanut butter, and peanut candy is some of the most popular in the U.S. Peanut oil is used in a variety of ways.

Farmers continue to do more with less, to create our favorite peanuts + peanut products!

Vocabulary

cash crop: a crop grown for commercial value, and intended to sell at market.

export crops: crops raised in the United States and sold/shipped to another country. Peanuts are exported to countries like Canada, Mexico, China, European Union and Japan.



George Washington Carver had a passion and interest for many things: including nature, art, and helping others.

How could you take a skill or interest and make a positive difference?

George Washington Carver

George Washington Carver's legacy includes many titles: a famous scientist, inventor, and educator. He was a professor, and founded his own research lab, where he studied ways farmers could help the soil. He also had a mobile classroom, and would travel to rural communities and teach farmers about raising crops.

- Born a slave around 1864
- Knowledgeable in chemistry and physics
- Studied **music**, and was an accomplished **painter and artist**
- He loved combining nature and art, and was known for his plant drawings. As a young child, neighbors called him "the plant doctor"
- Carter spent decades studying **crops and peanut uses**
- Carter developed more than **300 uses for the peanut**, including soap and glue

Draw a picture that represents one of **George Washington Carver's talents**.

Draw a picture of an **invention** you used today:

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IN THE KITCHEN

recipes

Peanuts have protein, and a variety of nutrients and minerals, like Vitamin E, and Niacin.



Peanut Powered Breakfast Cookies

- 1 cup all-purpose flour
- 1/4 cup oat bran
- 1 teaspoon cinnamon
- 1 teaspoon baking soda
- 1/8 teaspoon salt
- 1/2 cup creamy peanut butter
- 1/2 cup unsweetened applesauce
- 1/4 cup nonfat plain Greek Yogurt
- 1/4 nonfat milk
- 1 cup dark brown sugar
- 2 eggs, beaten
- 1 teaspoon vanilla
- 1/2 cup chopped dry roasted unsalted peanuts
- 2 cups rolled oats
- 1/2 cup dried cherries

Directions: Preheat oven to 350°F. In a medium bowl, sift together flour, oat bran, cinnamon, baking soda, and salt. In a large bowl, stir together peanut butter, applesauce, yogurt, and milk until smooth and creamy. Add brown sugar and stir to combine. Then add eggs and vanilla extract and stir until incorporated. Add the flour mixture to the peanut butter mixture and begin to combine with a mixing spoon for just a few strokes. Then add the oats, peanuts, and cherries and mix carefully just until the dry ingredients are moistened, taking care not to over mix.

Cover bowl with plastic wrap and place in the refrigerator for 30 minutes. For each cookie, drop a 1/4 cup of batter onto greased baking sheets, leaving about 2 inches of room all around. Using clean hands, press down on the top of each cookie gently to slightly flatten each.

Bake until a toothpick inserted into the center of 1 or 2 cookies comes out clean, about 16 to 18 minutes. Remove the baking sheets from the oven and allow to cool for 5 minutes. Then transfer the cookies to a wire rack to cool for 10 minutes more. **Makes 16 cookies.**

Peanut Butter Apple Oatmeal Muffins

- 2 cups old-fashioned rolled oats
- 1 teaspoon baking powder
- 2 teaspoons ground cinnamon
- 1/2 teaspoon salt
- 2 eggs
- 1 1/2 cups milk of your choice
- 1 teaspoon vanilla
- 1/4 cup pure maple syrup
- 3/4 cup peanut butter
- 1 cup finely chopped apple (peeled)

Directions: Preheat the oven to 375 degrees F. Line or grease a 12-muffin tin. In a large bowl, combine the oats, baking powder, cinnamon, and salt. Set aside. In a separate bowl, lightly beat the eggs. Add the milk, vanilla, and maple syrup and whisk to combine. Add the peanut butter and whisk until combined as much as possible. Add the apple and stir in.

Add the wet ingredients to the dry ingredients and whisk until everything is well combined. Fill your 12 muffin liners (or tins) evenly with the mixture. I like to use an ice cream scoop for this step. Using the back of the ice cream scoop (or spoon), gently press on the top of each muffin to flatten the batter on the top and against the sides. Bake in the oven for 30-40 minutes, or until browned and fully cooked.

Peanut Butter Vanilla Yogurt Dip

- 1 cup yogurt
- 4 tablespoons peanut butter
- Fresh fruit or graham crackers

Directions: Combine peanut butter and yogurt and mix well. Portion into 1/4 cup containers. Refrigerate until ready to serve. Serve with fresh fruit and or graham crackers.

Math Measurements: In the Kitchen

- ① The recipe calls for **1/2 cup** of peanut butter. How many cups would you need if you wanted to make the recipe X3. _____

- ② Your recipe calls for **2 cups** of peanuts. You have a **1/2 cup** measuring cup. How many 1/2 cups = 2 cups? _____

Always ask an adult to help you in the kitchen!

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STEM ACTIVITIES



Growing Peanuts: Exploring the Life Cycle

- Egg carton or garden cups
- Peanut seedlings
- Potting soil
- Water

Plant seedling in a cup or carton, just under the soil surface. Make sure seed is covered with soil. Water until soil is moist. Store in a warm, sunlit area. Water daily, and record your observations on day 1 and 10.

How are peanuts different from other nuts (in how they grow)?

Peanuts grow among nature--and alongside worms, insects, and other animals!



Observation

Day 1



Day 10



Observation

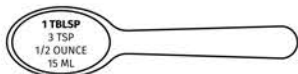
- We know that honey comes from bees! Bees can help transfer pollen to plants.
- Reminder: Peanuts are **self-pollinating** and do not need wind, bees or other insects to move pollen from one plant to another. **COOL!**
- Powdered milk is used as a thickening agent. What other ingredients are used to thicken foods when cooking?

Peanut Butter Clay

- 1 cup creamy peanut butter
- 1 1/2 cups instant powdered milk
- 3 tablespoons honey

Mix ingredients well. If dough is too sticky or wet, add more powdered milk. If it is too dry, add more honey.

Classroom tips: break students into groups of 2-3 and allow them to do measurements, and stir. Gloves with cooking spray may help when kneading dough. Lay a piece of parchment paper at each station and allow students to make shapes around peanut plant, or mold a shape of an activity to represent a peanut's nutrient profile, protein fuels our bodies!





The Story of Peanuts: Activity Book



KEY

Page 2: peanuts; 5

Page 3: 2,6,3,4,1,7,8,5

Page 4: conservation; waste;
world; smartphones

The Newhouse family is a real life Texas farm family and the inspiration behind this peanut activity book for kids, as they learn and explore all things peanut. The Newhouse family raise **peanuts**, cotton, wheat, hay and cattle on their 1,000 acre farm in the **Texas Panhandle**. The peanuts they raise make their way into our favorite **peanut products (including peanut butter, yum)**.

Peanuts have protein, niacin and Vitamin E - all important to maintaining a healthy and active lifestyle. Today's farm families raise peanuts while **caring** for the soil, water, land and wildlife. Today's technology allows farmers to do **more with less**. **Fun activities, recipes, and hands-on activities included!**

Learn more about peanuts at texaspeanuts.com.



National
Peanut Board 

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PRESS

Peanuts have 7 grams of protein per ounce, and are an excellent source of Niacin and Manganese, crucial to converting food and nutrients to **energy**.

It takes **about 540 peanuts** to make a 12-ounce **jar** of peanut butter.

Americans eat enough **peanut butter** each year to cover the floor of the **Grand Canyon!**