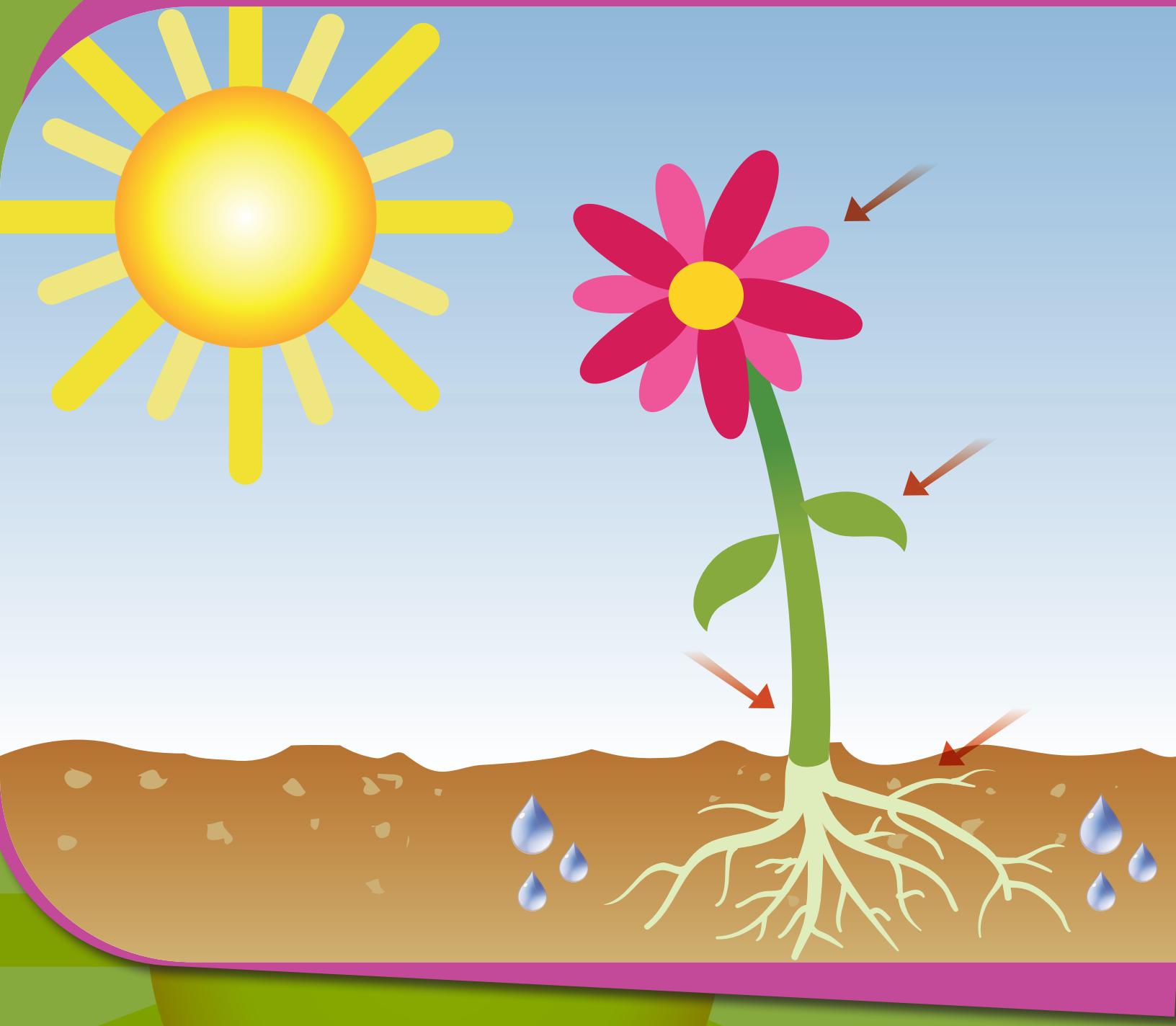
Plant Parts

1st GRADE



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Certificate of Completion

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What does a Plant Need?

People need water, food and air to live. Plants also need certain things to live. We need part of the air called oxygen (O_2). Plants use another part of the air called carbon dioxide (CO_2). Plants take in minerals and food from the soil. Plants need air carbon dioxide, water and sunlight to live. When the plant breathes, it changes the carbon dioxide into oxygen.

Draw a line to all the things a plant needs to grow healthy.
Circle the type of air plants breath out.

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What Do Plants Need?

Circle all the things plants need to grow.

light

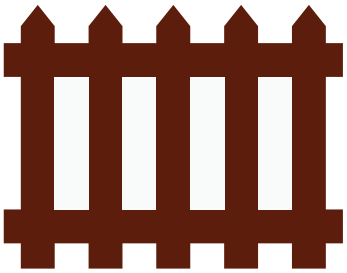
barn

tooth brush

air

boots

shovel



fence

soil

candy

ballons

water

How many items did you circle? _____

Why are these items important for all plants?

_____

_____

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What Affects Plant Growth?

What are the 4 main things that all plants need to grow?
Draw them in the boxes below.

What happens when plants get too much sun?

What happens when plants don't get enough water?

What things can cause a plant to not grow at all?

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Parts of a Plant

Unscramble the letters to name the different parts of a plant. Then draw your own plant to go with your labels and color your picture.

ubd

_ _ _

rolwef

_ _ _ _ _ _

tmse

_ _ _ _

elaf

_ _ _ _

otor

_ _ _ _

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Parts of a **Plant**

Vocabulary

Stem

The stem supports the plant so that it stands upright. It has many thin tubes that carry water, minerals and food up from the roots.

Flower

The flower of a plant has many parts. Some flowers make fruit. Others are poisonous to eat. All flowers make *pollen*. The pollen is released into the wind or gets stuck on insects, and when the pollen reaches other flowers, new flowers are made. This process is called *pollination*.

Leaves

Most of the plant's food is made in its leaves. They are wide so that the *chlorophyll* can take in more sunlight and do its job better.

Chlorophyll

This chemical is the green color found in plants. Chlorophyll takes in light from the sun and turns it into energy and sugar to feed the plant. This process is called *photosynthesis*.

Roots

The roots of a plant are usually underground. Roots soak up water, vitamins and minerals from the soil so that a plant has plenty of food and nutrients. Roots also help to anchor the plant in the soil so that it does not fall over.

Cells

A plant cell is the smallest part of the plant. Plant cells are like animal cells but they have a cell wall and contain *chlorophyll*, which gives the different parts of a plant their green color.

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Parts of a Plant

Quiz

How well do you know your plant parts? Answer the questions below by circling the correct answer under each sentence. Refer to the *Parts of a Plant Vocabulary* worksheet to study for this quiz.

1. What part of a plant makes the most food?

A. stem B. fruit C. flower D. leaf

2. Which part of a flower is released into the air?

A. stem B. root C. petals D. pollen

3. Which part of a plant helps keep the plant in an upright position?

A. stem B. root C. sun D. branch

4. What makes the color of plant leaves green?

A. chlorophyll B. green paint C. oxygen D. cells

5. Which of the following is the smallest part of a plant?

A. plant seed B. plant cell C. flower D. leaf

6. Which part of a plant collects water and nutrients from the soil?

A. stem B. fruit C. flower D. roots

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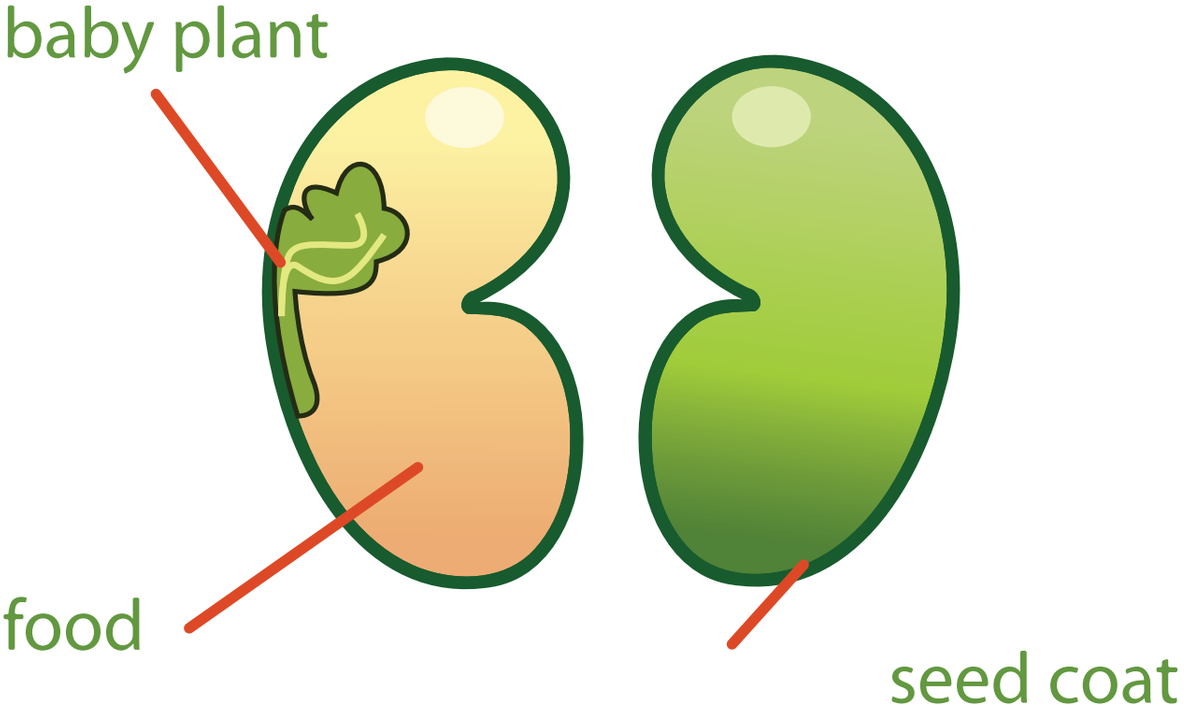
Parts of a Seed

1

A seed is like an egg. It is where a baby plant starts its life. Seeds are found in flowers and fruit. They come in many shapes and sizes. When a fruit falls to the ground, its seeds drop into the soil. Rain helps by pushing the seeds all the way into the soil. Once a seed is in the soil, the baby plant will burst out of its outer seed coat and begin to grow!



Plants grow from seeds. Inside each seed is an *embryo*, or baby plant. The embryo is surrounded by a food storage area. All seeds have a protective outer layer called the *seed coat*, just like an eggshell! Once the baby seed grows out of its coat, it's called a *seedling*. Then the baby seed grows roots to get minerals and water from the soil. As its stems grow, it also sprouts leaves, which will allow it to make its own food from sunlight. The adult plant will grow out flowers and fruits to spread more seeds and start the plant life cycle again.

Ready to test your knowledge? Go to part 2 for a short quiz.

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Parts of a Seed

2

*Use part 1 to answer the questions. Circle **all** correct answers.*

1. Where do plant seeds come from?

a. stem b. leaves c. fruit d. flowers e. roots

2. What is another name for the baby plant inside the seed?

a. seed coat b. embryo c. food storage

3. What is the name of the protective layer of the seed?

a. stem b. leaves c. seed coat d. food storage

4. What do the seed's roots absorb from the soil?

a. water b. minerals c. sun rays d. dirt

5. What is a baby plant called when it grows out of its coat?

a. plant b. baby seed c. seedling d. stem

6. What do the leaves of the plant make?

a. water b. air c. food d. sunlight

7. What do adult plants grow to continue the plant life cycle?

a. stem b. leaves c. flowers d. fruit

8. What is a seed most like?

a. an egg b. a baby c. a tree d. an apple

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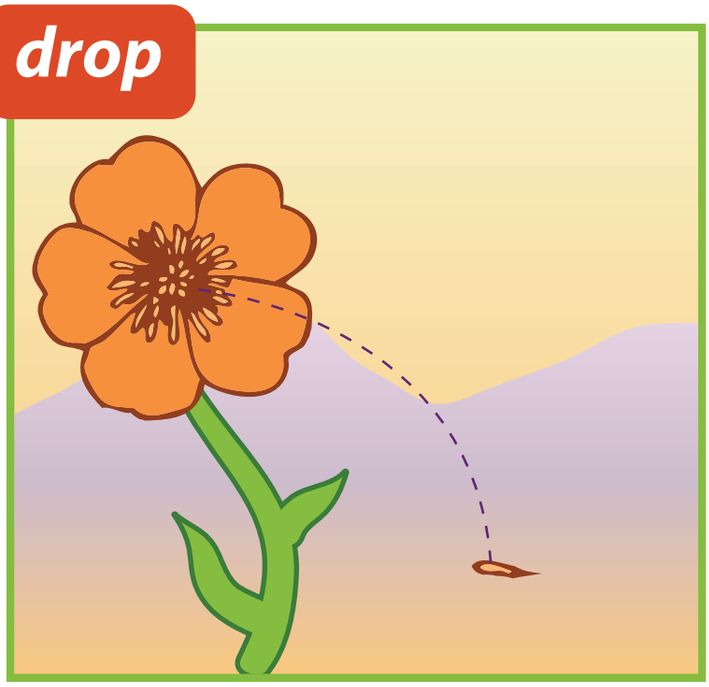
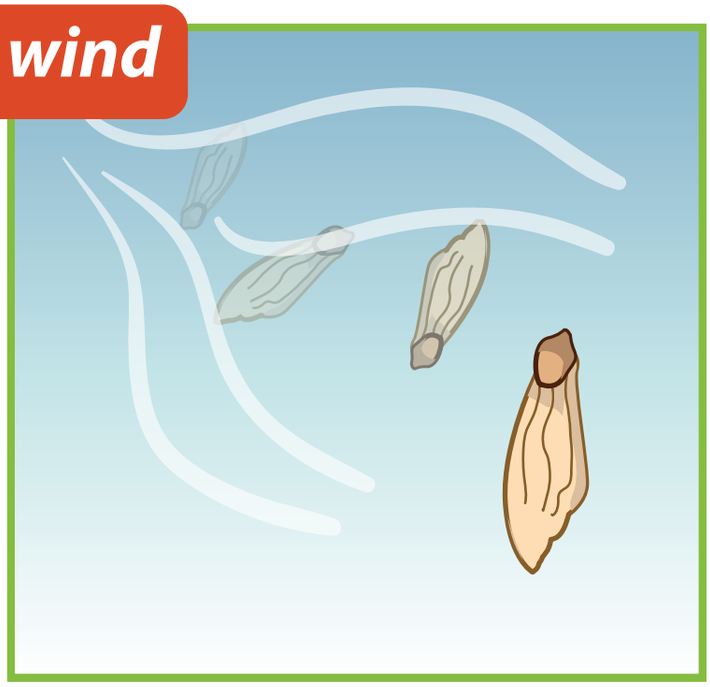
How Do Seeds Get Planted By Nature?

drop



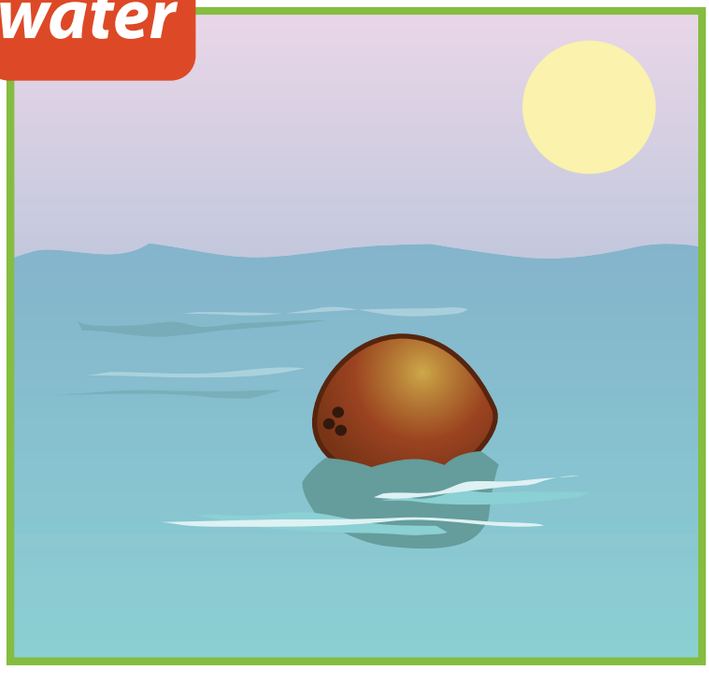
Some seeds drop out of the flower onto the ground.

wind



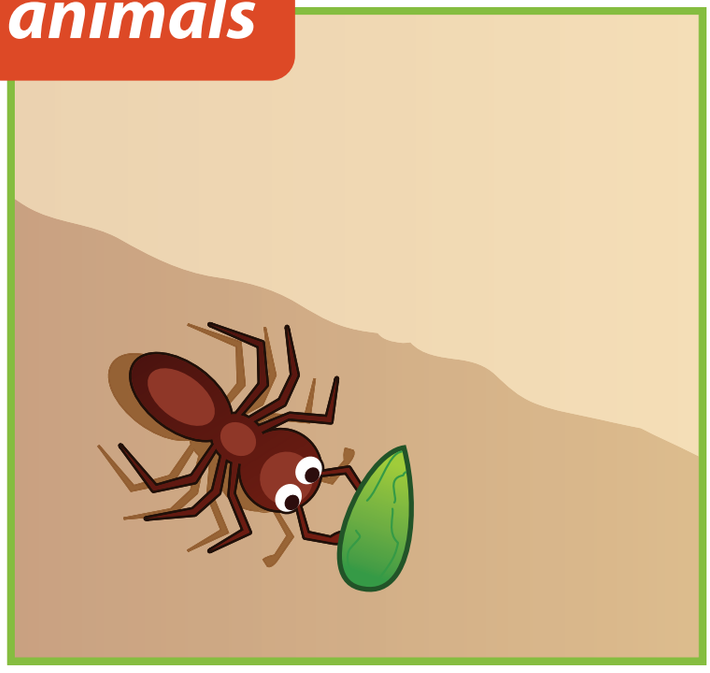
Some seeds travel by wind.

water



Some seeds float in the water to get to land.

animals



Some seeds spread when they are carried by animals or bugs.

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Quiz How Do Seeds Get Planted By Nature?

1. What is a type of seed that travel to land by water?

2. How do animals help plant seeds?

3. How can seeds travel by air?

4. What is another way seeds are planted by nature?

Did you know...

Maple seeds have wings so they can travel by air.

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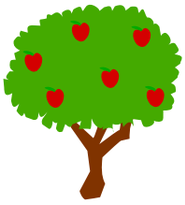
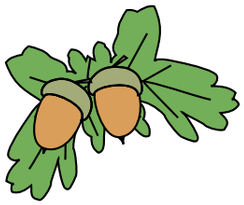
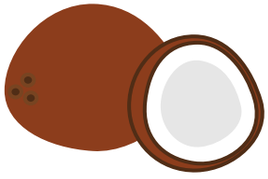
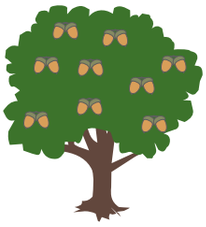
Seed, Fuits and Plants

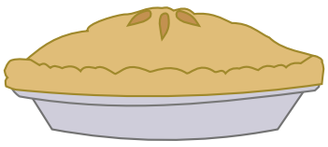
Draw a line to match each food item with the correct plants or trees it comes from.

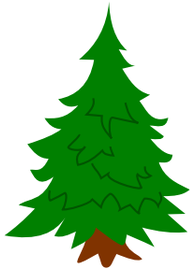












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PLANT PARTS We Eat!

Did you know that we eat many different parts of the plant? We eat the **stem** of the plant when we eat asparagus or celery. We eat the **leaves** of the plant when we eat lettuce. We eat the yummy **fruits** of the plant, and those fruits have seeds inside of them. Sometimes we can eat the seeds, like when we eat strawberries or cucumbers, and sometimes we don't like to eat the seeds, like when we eat apples or grapes. When we eat veggies like corn or peas, we are actually eating the **seeds** from the plant! When we eat other veggies like carrots or potatoes, we are eating the **roots** of the plant. Cauliflower, artichoke and broccoli plants produce **flowers** that are tasty to eat.

Sometimes we eat more than one part of the plant. Many people like the root of the beet plant, but the leaves are also yummy. Beet leaves are used in salads when the leaves are young and tender. When they get bigger, beet leaves can be bitter, so they taste better cooked. We usually eat the root of the onion plant, but the stems taste good too, when they are young and tender.

Some of the plants we eat are *poisonous* if we eat the wrong part. Did you know that the leaves of a tomato plant are poisonous? For many years people would not even eat tomatoes because they thought the entire plant was poisonous! Now we know the fruit of the tomato plant is safe and delicious, plus it has vitamins that are very good for us too!

Now think about the plant facts you just read above. On the next page, answer the questions. You may look back at the facts for help.

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PLANT PARTS We Eat!

1. Which part of a plant can we eat? *(Circle **all** correct answers.)*

a. stem b. leaves c. fruit d. seeds e. flowers

2. We eat more than one part of these plants: *(Circle **one** answer.)*

a. spinach and lettuce
b. okra and tomatoes
c. beets and onions
d. radish and carrot

3. When are beet leaves good to eat?

_____ .

4. The fruit of this plant is delicious, but the leaves are poisonous.

It is a _____ .

5. What is a plant that you love to eat?_____

What type of plant part is it? *(Circle **all** answers that apply.)*

a. stem
b. leaves
c. fruit
d. seeds
e. flowers
d. radish and carrot

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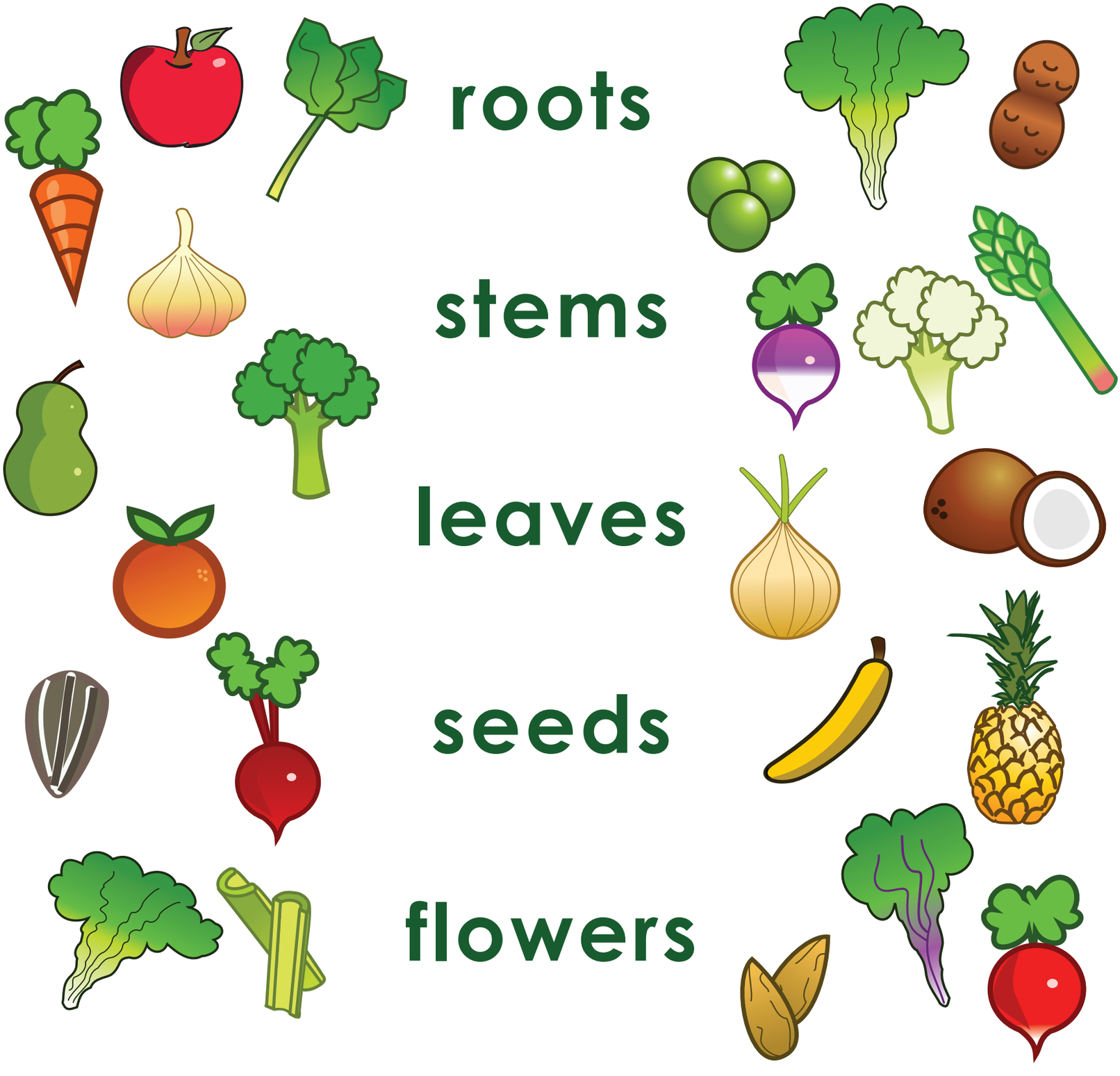
PLANT PARTS We Eat!

Now match the plants to the parts we eat!



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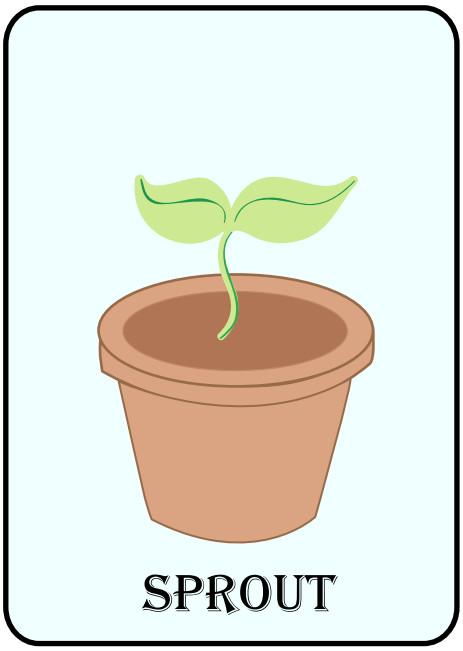
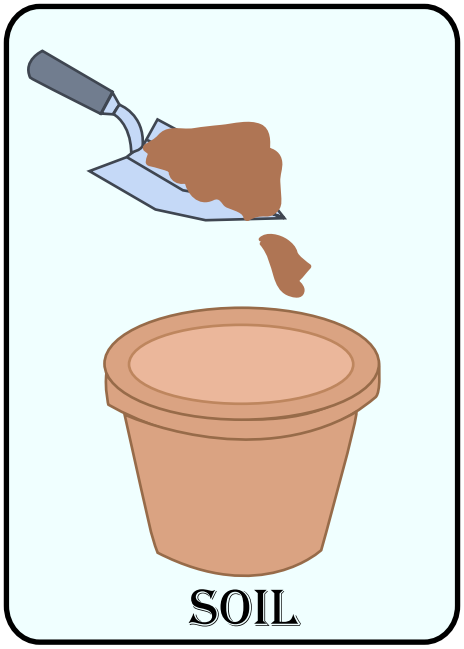
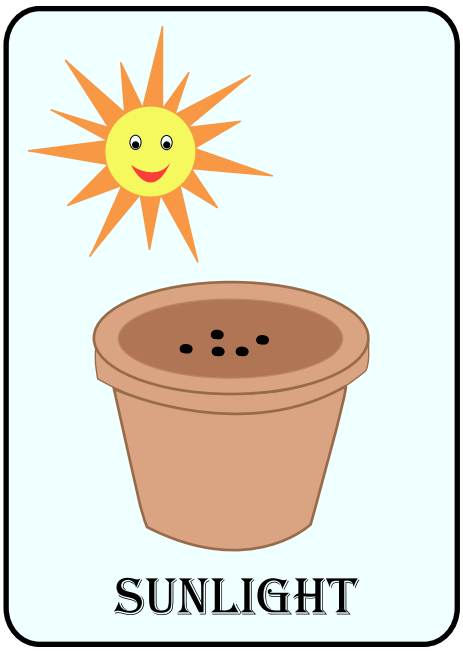
PLANT LIFE CYCLE

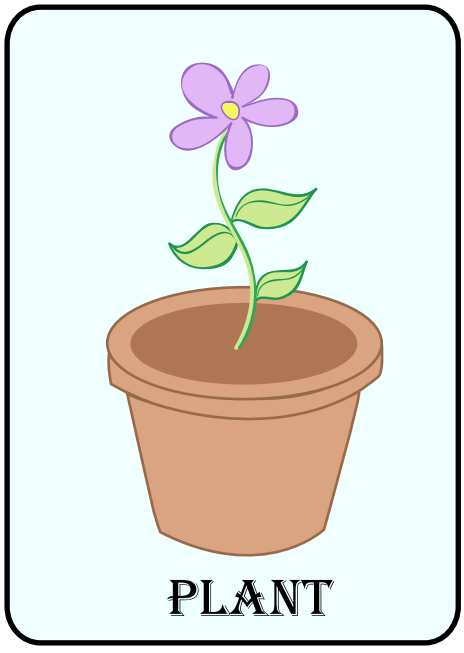
HOW DO PLANTS GROW ?

Cut out the flash cards with the help of a parent. Then, paste them in the correct sequence on the next page.









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PLANT LIFE CYCLE

HOW DO PLANTS GROW ?

Paste the cut flash cards in these boxes in the correct sequence.

1	2	3
4	5	6

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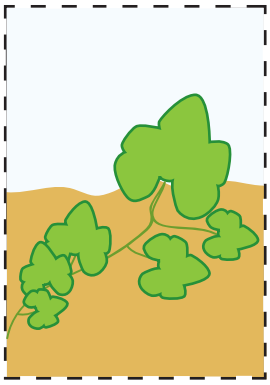
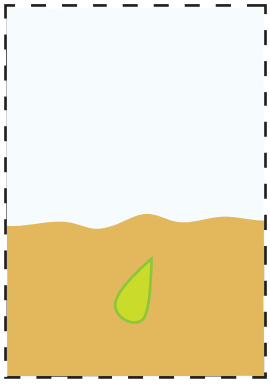
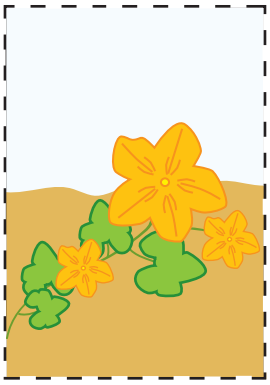
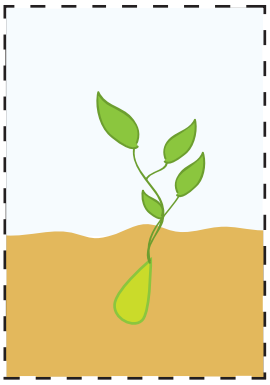
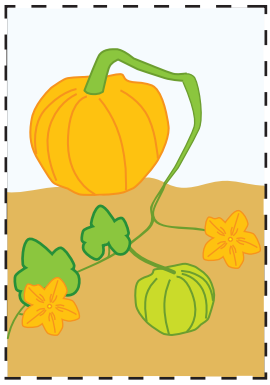
How Do Pumpkins Grow?

Fun Fact: Pumpkins are 90% water.

CUT OUT THE PIECES AND PASTE THEM IN ORDER OF GROWTH

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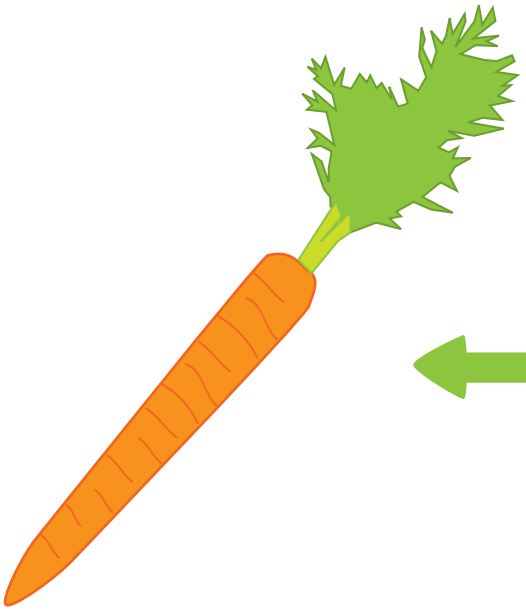
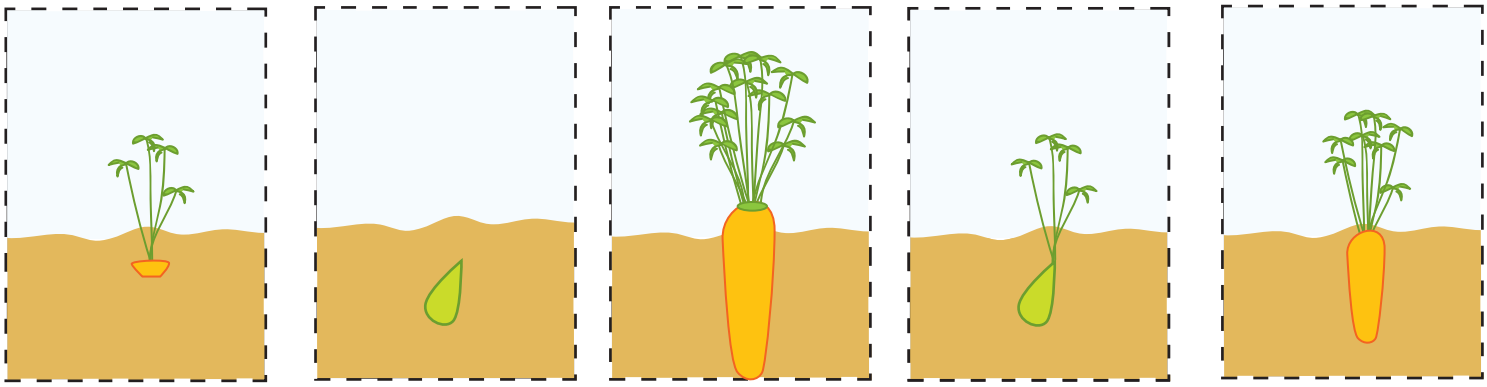
How Do Carrots Grow?

Fun Fact: The longest carrot ever recorded was nearly 17 feet long.



CUT OUT THE PIECES AND PASTE THEM IN ORDER OF GROWTH



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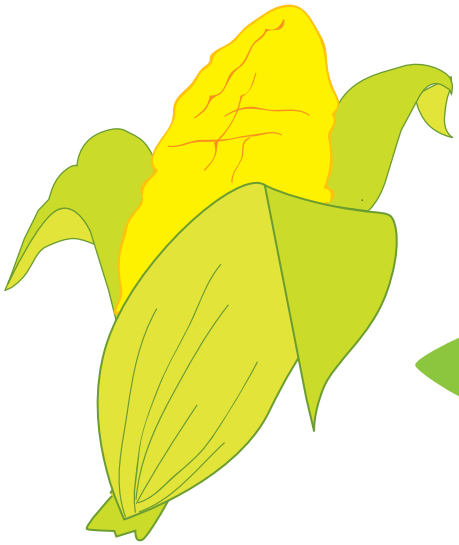
How Does Corn Grow?

Fun Fact: An average ear of corn has 800 kernels.



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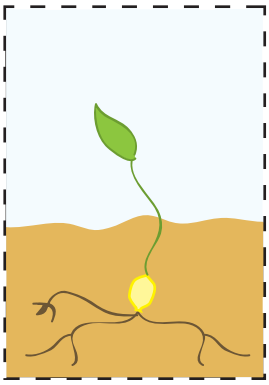
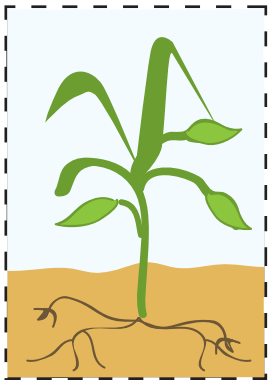
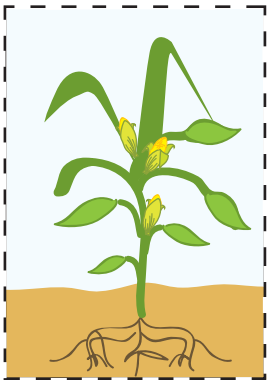
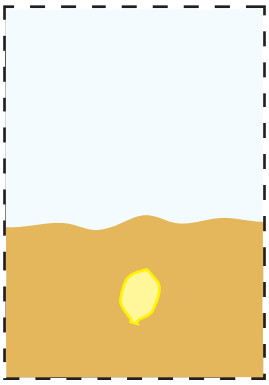
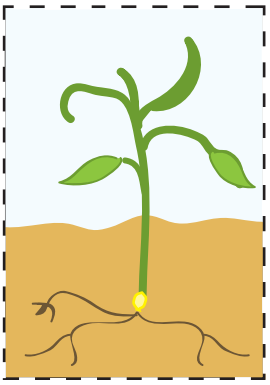

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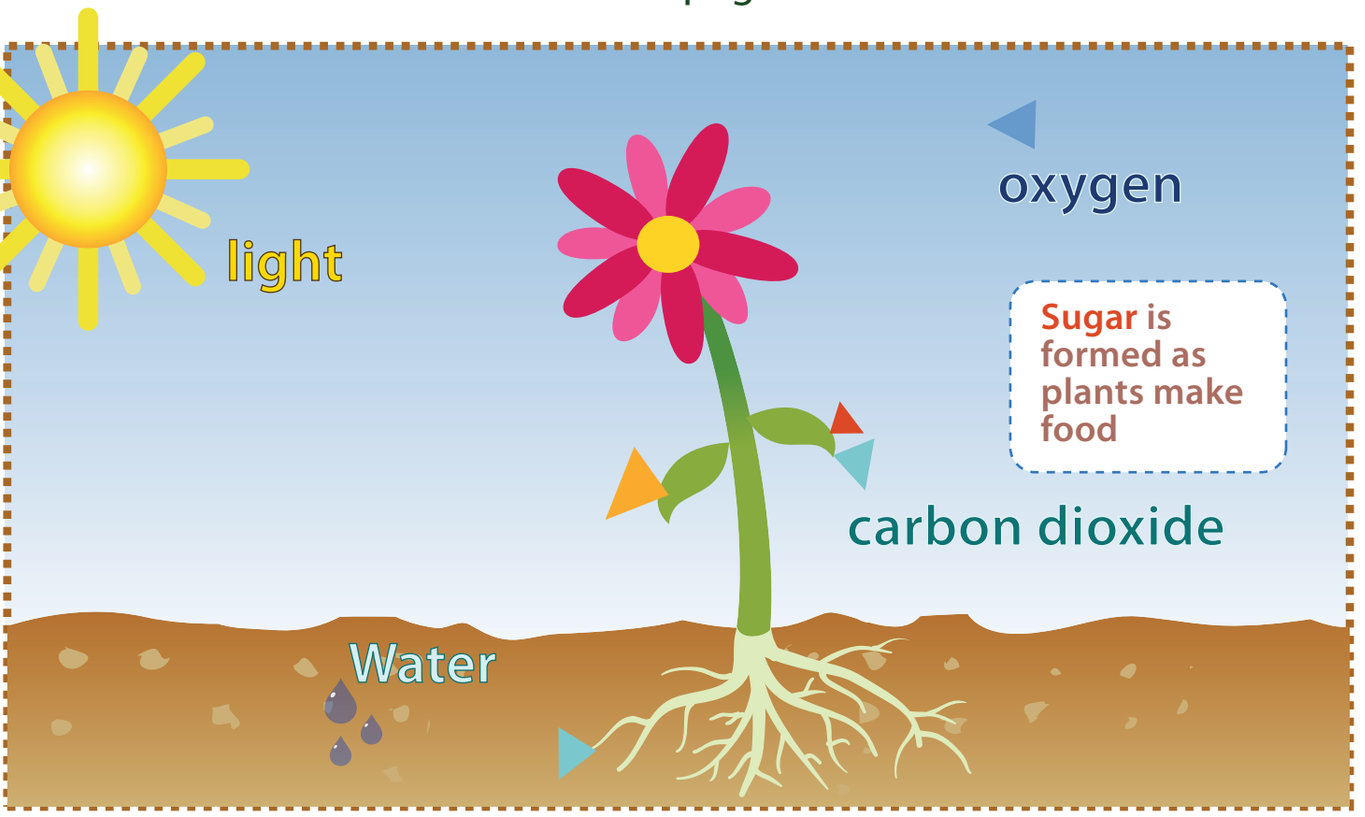
What is Photosynthesis

Study the picture below. Then use the diagram labels to complete the sentences at the bottom of the page.



Photosynthesis is a process that plants use to breathe and to make food. They use the _____ from the sun, along with _____ in the soil and a gas called _____ _____ to make _____ , which feeds the plant. During this process, _____ is released into the air.

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Experiment

Celery Stick Science

All plants and animals need water to survive. But how does a plant drink its water? Find out what really happens when you sprinkle that water, with this fun experiment that shows how plants absorb water!

What You Need:

- Tall clear glass or jar
- Water
- Red food coloring
- Scissors
- Celery stalk with leaves
- Observation worksheet

What You Do:

1. Fill a tall, clear glass half-full with water.
2. Add a few drops of red food coloring and mix well.
3. Trim the bottom of a large stalk of celery, leaving the leaves on the stalk.
4. Place the celery stalk in the glass or jar. Leave overnight in order for the stalk to "drink" the water.
5. Print out the observation sheet for this activity. Have your child draw a picture of the celery stalk "before" it drinks the red water and then write a sentence to describe what he see
6. The next morning, observe what has happened. Let your child tell you where he thinks the water has gone and what has happened to the celery. Ask him if he thinks the whole plant gets water for food, and help to guide him to see that yes, the whole plant did get the water for food since all parts of the plant have now turned red (from absorbing the red water that was in the cup the day before).
7. Have your child complete the "after" portion of the observation sheet. He can draw a picture of what happened and write a sentence to sum up his findings.

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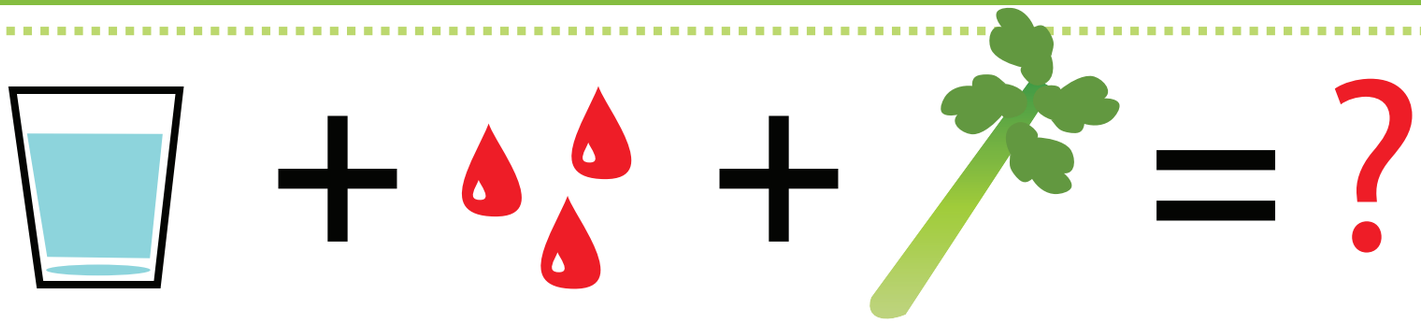
Please go to: http://www.education.com/activity/article/celery_stick_science_first/ and download the activity first.

Observation Sheet

Celery Stick Science



Before

Draw a picture and describe what you see.

After

Draw a picture and describe what you see.

What's Happening?

The water has been absorbed into the celery stalk, tinting the stem and leaves red.

Conclusion

Write your thoughts and make a drawing about this experiment.

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Experiment

Germinating Seeds

Seeds are baby plants. They have a thick, hard coat on them, just like a baby chick inside an egg. When conditions are right—good light, warm temperature, and moisture—the seedling comes out! In this activity, you'll germinate some seeds and watch as they grow into full size plants.

What You Need:

- Seeds of any kind
- Paper towel
- Stapler
- Plastic bag that zips
- Ruler
- Half cup of water
- Observation sheet

What You Do:

1. Fold a paper towel and place it so that it fits just inside the plastic bag.
2. Use the ruler and measure 3 inches from the top of the bag. Staple a bunch of staples in a row across the bag. You should have a miniature pocket. Your seeds will sit here.
3. Pour the half cup of water into the bag so your seeds have something to drink.
4. Have your child put the seeds into the bag so that they rest between the plastic and the paper towel in the upper mini pocket you've created. Zip up the bag so that no air can get in or out. You've just made a mini green house!
5. Help your child tape your mini green house to a window for plenty of light.
6. Use the observation sheet to track your seedlings' progress. Each day, check the green house together with your child and ask her what she thinks may be happening. Does she see anything beginning to sprout up?
7. After and few days-weeks you will see roots and seedlings beginning to form.
8. Carefully open your bag up and use a staple remover to remove the staples. The seedlings are fragile, so handle them with care! Once you've removed them, you can plant the sprouted seeds into a pot of soil. Make sure you cover just above the top of the seed, so that it is covered with about an inch of soil. You don't want to bury them! Nurture your new plant and see what it turns into.

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Please go to: http://www.education.com/activity/article/Germinating_Seeds/ and download the activity first.

Observation Sheet

Germinating Seeds

Use the spaces below to record the growth of the seeds you planted. Remember to write in the type of seed, the date you planted it, and the day you looked at it. Then draw a picture of any changes you see.

Type of Seed	Date Planted	Observation Date	Draw a Picture

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Great job!

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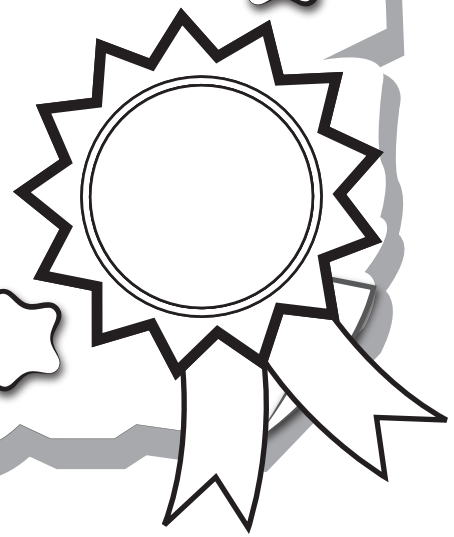
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