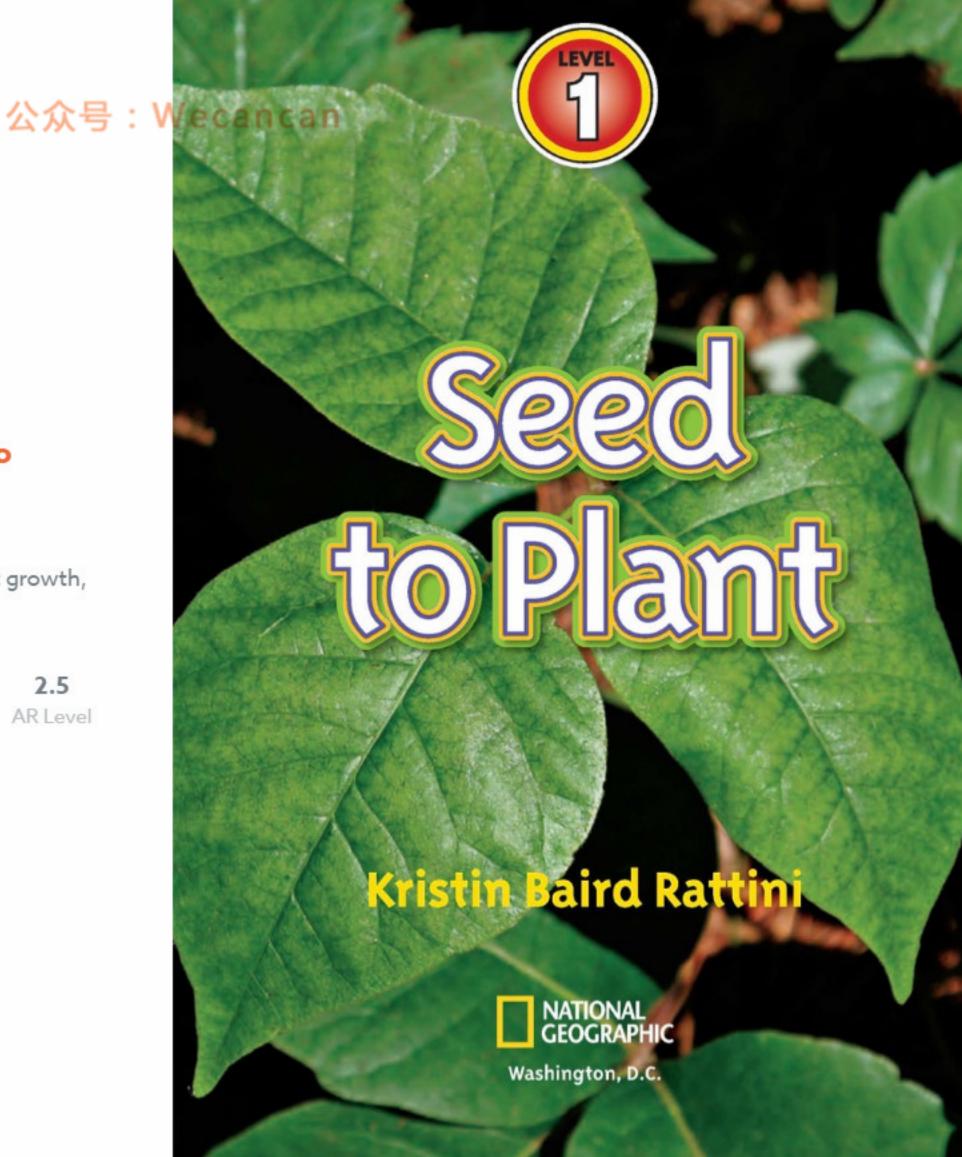
National Geographic Readers: Seed to Plant

By: Kristin Baird Rattini

Take a magical journey from seed pollination to plant growth, learning about what plants need to thrive.

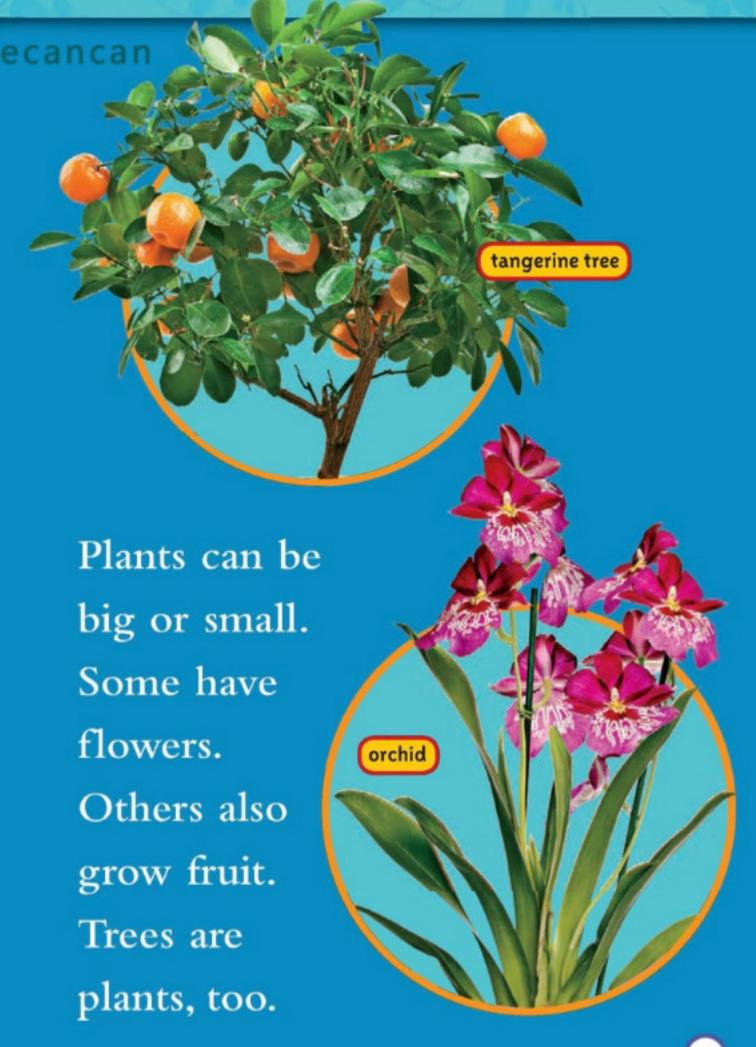
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what Is a Plant? : Wecancan

A plant is a living thing. It stays in one place. But it grows and changes, just like you.









Plants are a big part of our world.

Farmers grow fruits and vegetables.

These plants give us food.

Some plants can be used to make clothing.

Your T-shirt is made

from cotton plants.

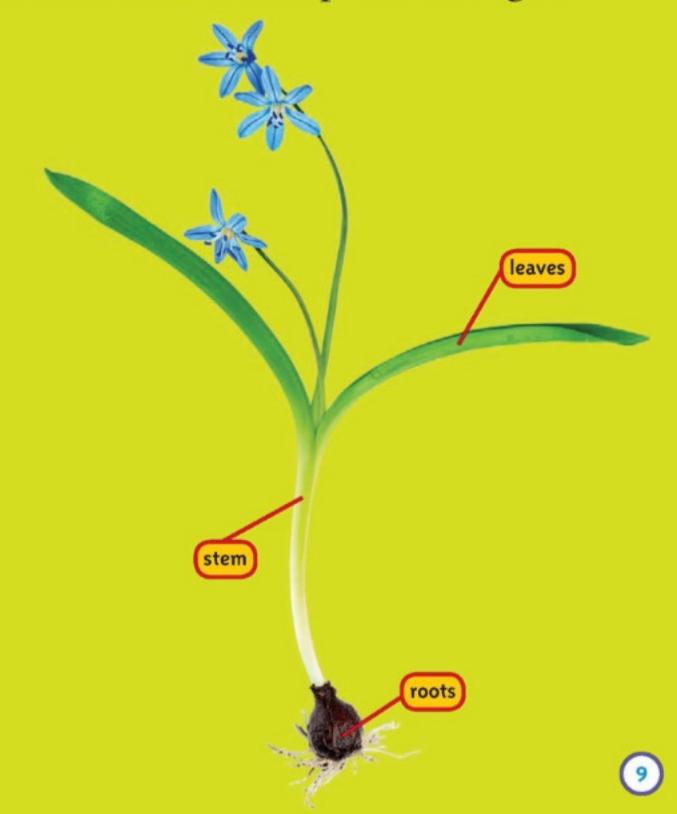
Other plants are cozy homes for animals.

Parts of a Plant : wecancan

You can use your body to remember the parts of a plant.



Roots hold the plant in the ground. The stem helps the plant stand up tall. Leaves soak up the sunlight.



How Does a Plant Begin?

1 Let's dig in! Most plants start as a seed.

2 The seed splits
open. A shoot pushes
out. This is called
germination
(jur-muh-NAY-shun).

3 A new plant is beginning!



GERMINATION: The sprouting of

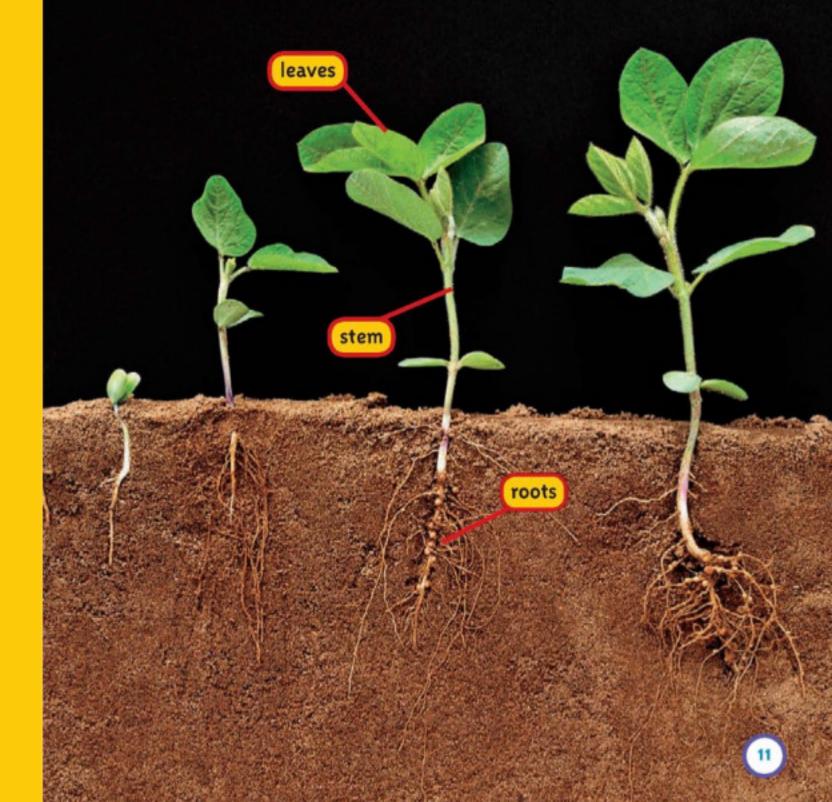
a new plant from a seed

SEEDLING: A young plant

A seedling starts to grow.

Roots reach down into the soil.

A stem pushes up into the air.

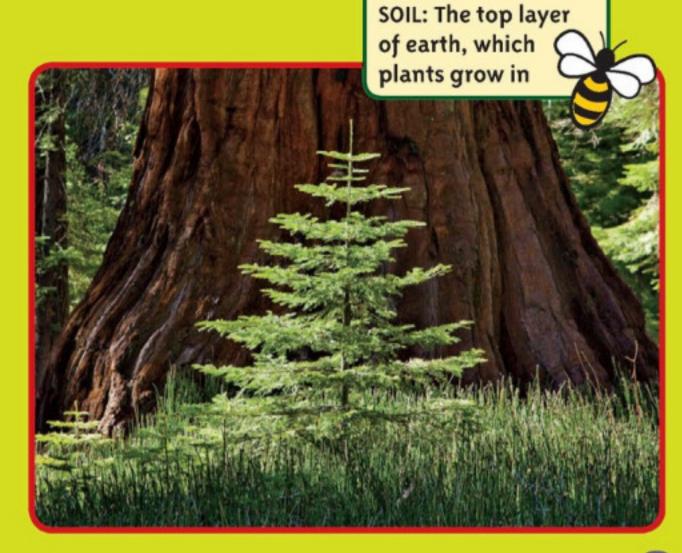




Just like you, a plant grows bigger and bigger. The roots spread out and down into the soil.

The stem gets thicker and stronger.

More leaves and branches grow.



How does a flower ride a bike?

With its petals!



Plants need these things in order to grow:

- ✓ Soil
- ✓ Sunlight
- ✓ Water
- ✓ Air
- √ Food
- √ Space

Water and some food come from the soil. The roots soak them up.

Sunlight and air enter through the leaves.

Plants use them to make more food. Plants also need space to grow.



Fun Plant Ax = : weeker



This palm tree seed can weigh as much as a fourth grader.
It's the heaviest seed in the world.

Scrub-a-dub in the tub!
Plants are used in
many soaps and
shampoos.



The paper for this book was made from trees.

One sunflower can make as many as 1,000 seeds!



seeds

Bamboo grows the fastest of any plant. It can grow as tall as a three-year-old kid in one day!



The tallest living tree is taller than the Statue of Liberty, in New York, U.S.A.

Flowers Bloom & : Wecancan

Many plants grow flowers.



They start as a bump called a bud.

The bud slowly opens. Petals gently unfold.



Surprise! It's a flower.

Sticky Pollen 公众号: Wecancan





Flowers make a sticky powder called pollen.

Pollen sticks to birds and bees when they fly from flower to flower.



Then the pollen rubs off on other flowers. This is called pollination (POL-uh-NAY-shun).

It helps flowers make seeds!



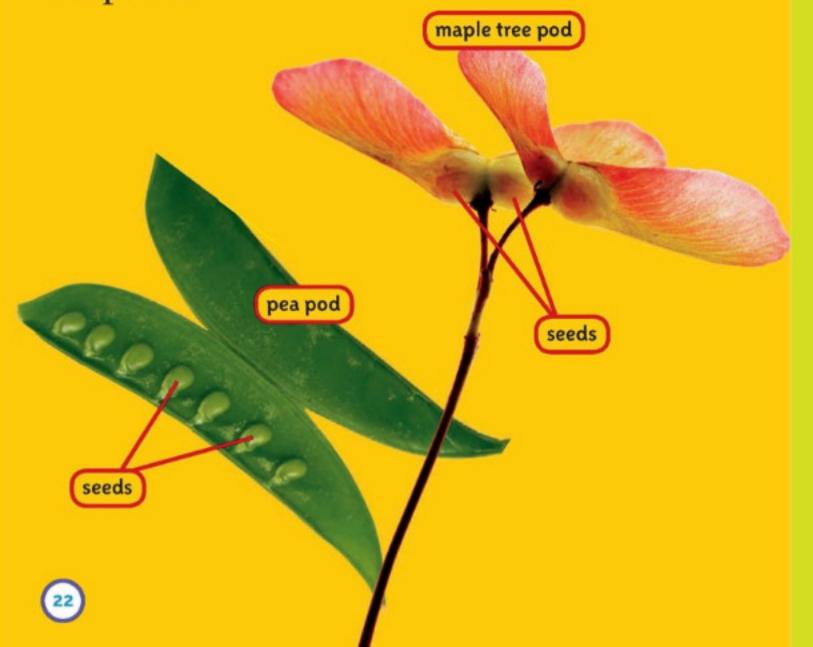
seeds

Seeds

公众号:Wecancan

Plants keep seeds in different places.

Many plants grow a case around the seeds. The case is called a pod. Peas and maple tree seeds grow in pods.

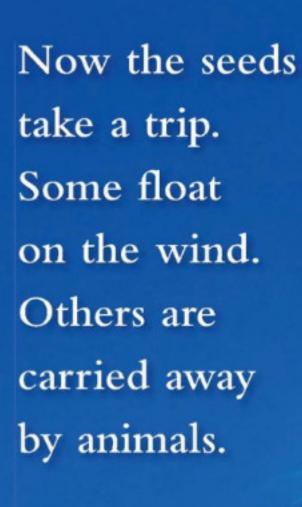


Orange seeds are different. Their seeds are on the inside.



But strawberry seeds are on the outside.



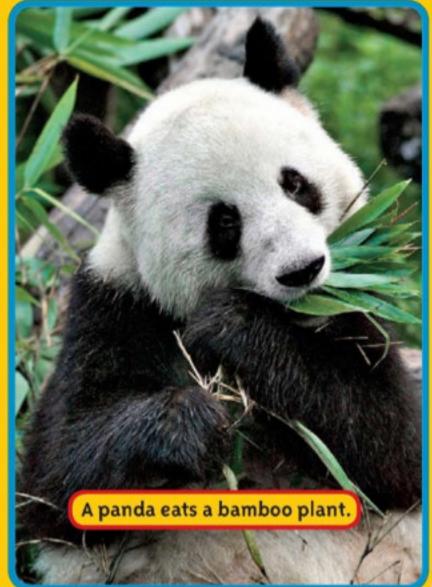


The seeds
fall to the
ground.
Soon they
sprout, or germinate.
A new plant begins.



Pass the Plants, Please!

People and animals eat plants to stay healthy. How many plants did you eat today?





Make Your Garden Grow

What is a plant's favorite drink?



You can grow your own bean plant. Ask a grown-up for help.



You'll need:

- ✓ One lima bean seed
- / A cup of water
- ✓ A 4-inch flowerpot,

glass jar, or paper cup

√ Soil



Soak your seed in a cup of water overnight.



Fill the flowerpot with soil. Push your seed down into the soil about one inch.





Wecancar



Add a little water to moisten the soil.



Place the pot in a warm, sunny spot. Add a little water whenever the soil gets dry. Your seedling should sprout within one week!



What in the World?

These pictures show close-up views of things in this book. Use the hints below to figure out what's in the pictures. Answers are on page 31.



HINT: This opens into a flower.



HINT: This part of a plant takes in sunlight and air.

WORD BANK

Wecancan

strawberry bud

sunflower



HINT: This flower can make up to 1,000 seeds.



HINT: This falls and waters the plants.



HINT: This buzzes as it flies from flower to flower.



HINT: This has seeds on the outside.

Answers: 1. bud, 2. leaf, 3. sunflower, 4. rain, 5. bee, 6. strawberry



GERMINATION: The sprouting of a new plant from a seed

POLLINATION: The moving of pollen from one flower to another. This makes seeds grow.



SEEDLING: A young plant

SOIL: The top layer of earth, which plants grow in