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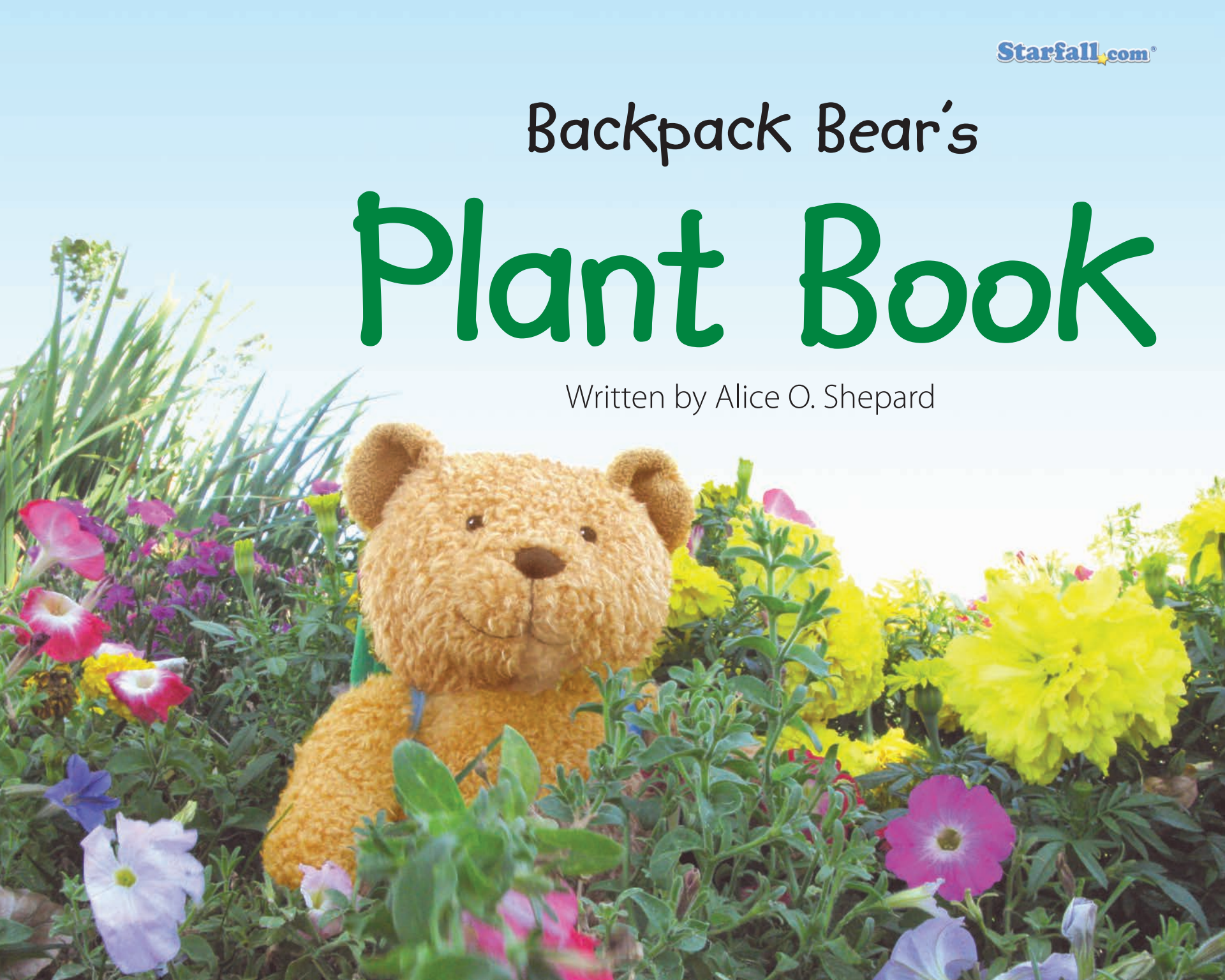
Backpack Bear's Plant Book

Written by Alice O. Shepard



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Learn all about plants with Backpack Bear!

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Backpack Bear's

Plant Book

Written by Alice O. Shepard

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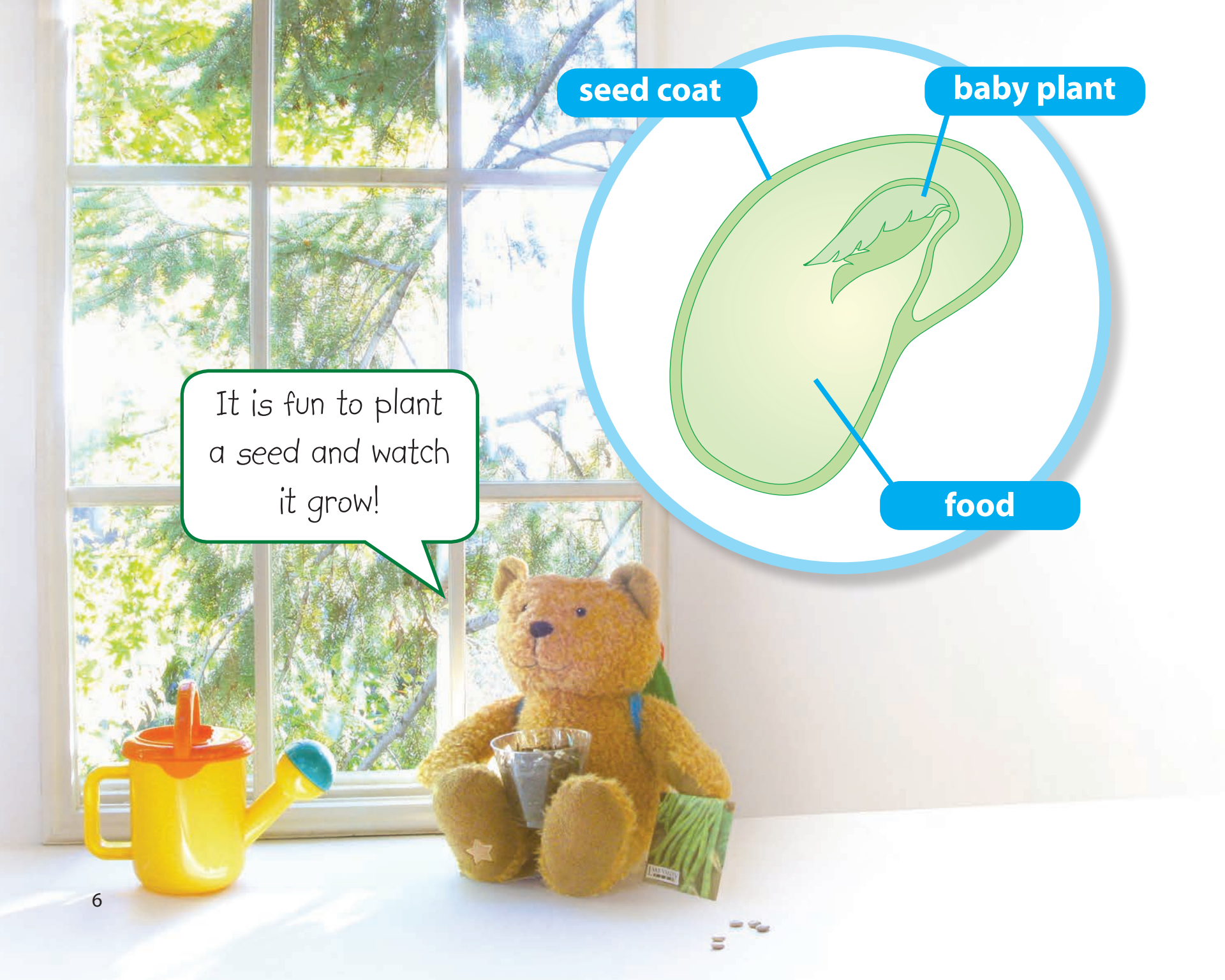
Starfall Education Foundation
P.O. Box 359, Boulder, CO 80306


I love this plant.
I grew it myself!

Do you have a favorite ***plant***?

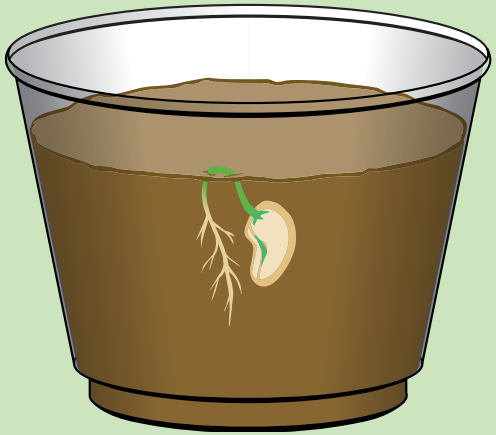

seed coat
baby plant
food
It is fun to plant a seed and watch it grow!

Most plants grow from a ***seed***.

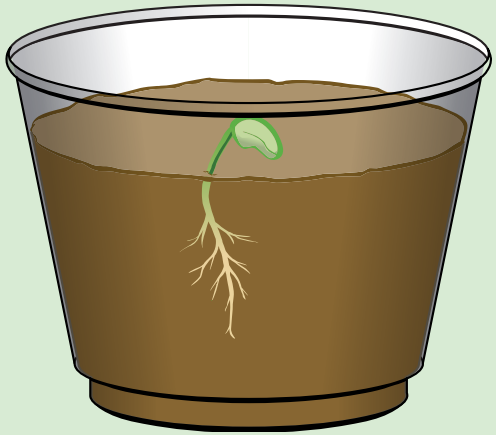
Every seed is covered with a seed coat.
The baby plant is inside. It is surrounded by food.

This is just how my plant started!

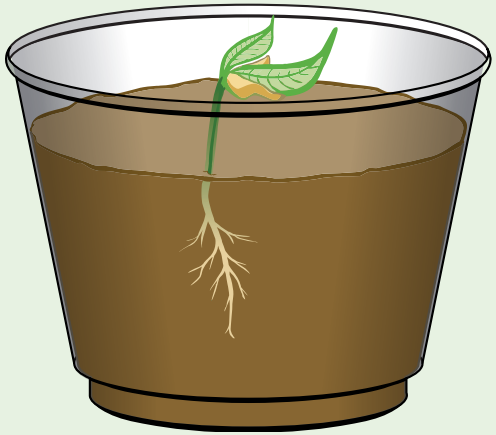
First, the seed gets wet.



Then, it grows
a root.

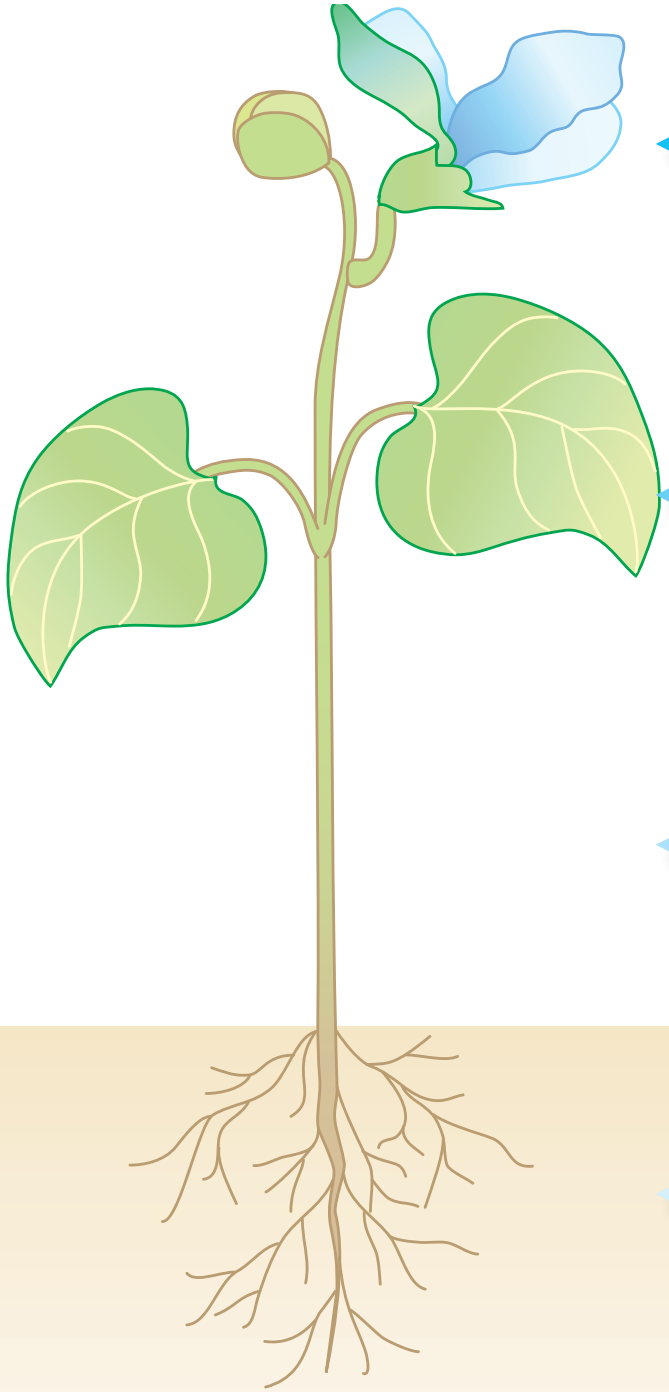


Next, it starts
to sprout.



Finally, it opens
up to the light!

Most plants have four parts:
flowers, leaves, stem, and roots.



Flowers: Make seeds.

Leaves: Collect carbon dioxide and sunlight to make food.

Stem: Carries water and minerals to the leaves. Supports the plant.

Roots: Take in water and minerals. Hold the plant in the ground.

Plants may not be able to walk around, but they can move.

Stretch your arms up towards the sunlight.
Plants reach for the sunlight just like that!

Why do they do this?

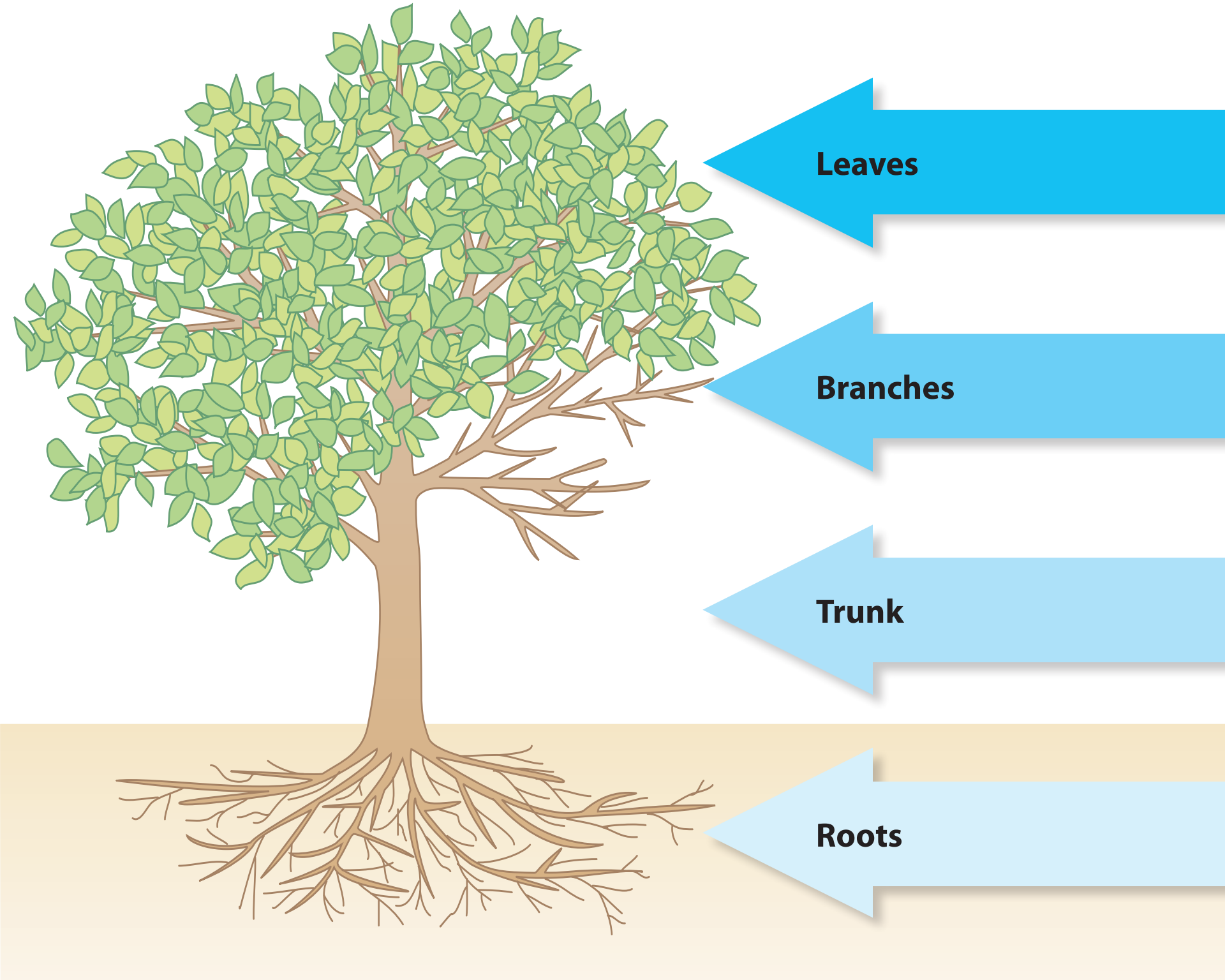

Oxygen
Carbon Dioxide

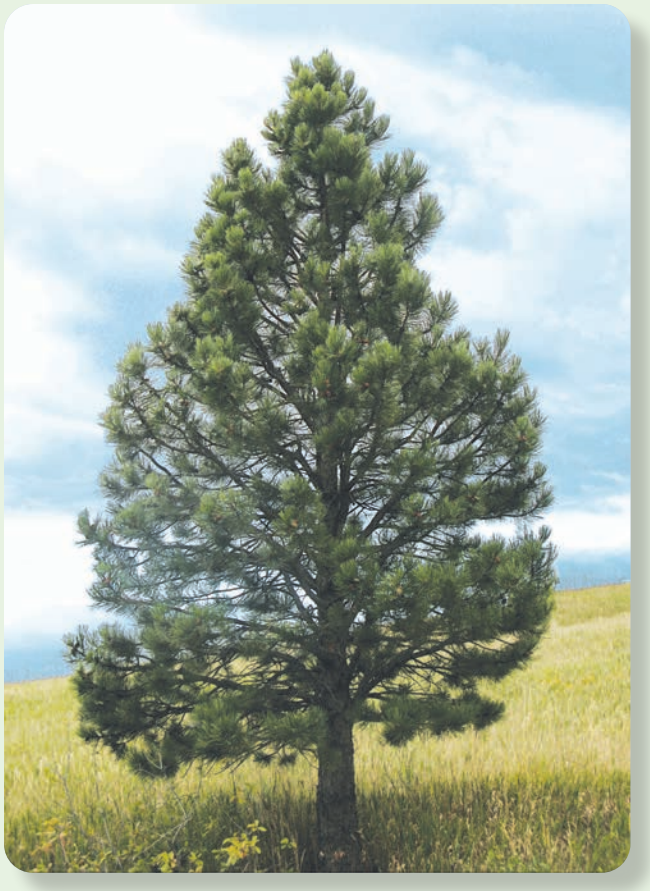
Plants need sunlight. They catch the energy in sunlight and use it to change water and carbon dioxide into food for themselves. As they do this they give off oxygen.

You can't see oxygen or carbon dioxide; they're invisible. But all animals (even you!) need oxygen to breathe.

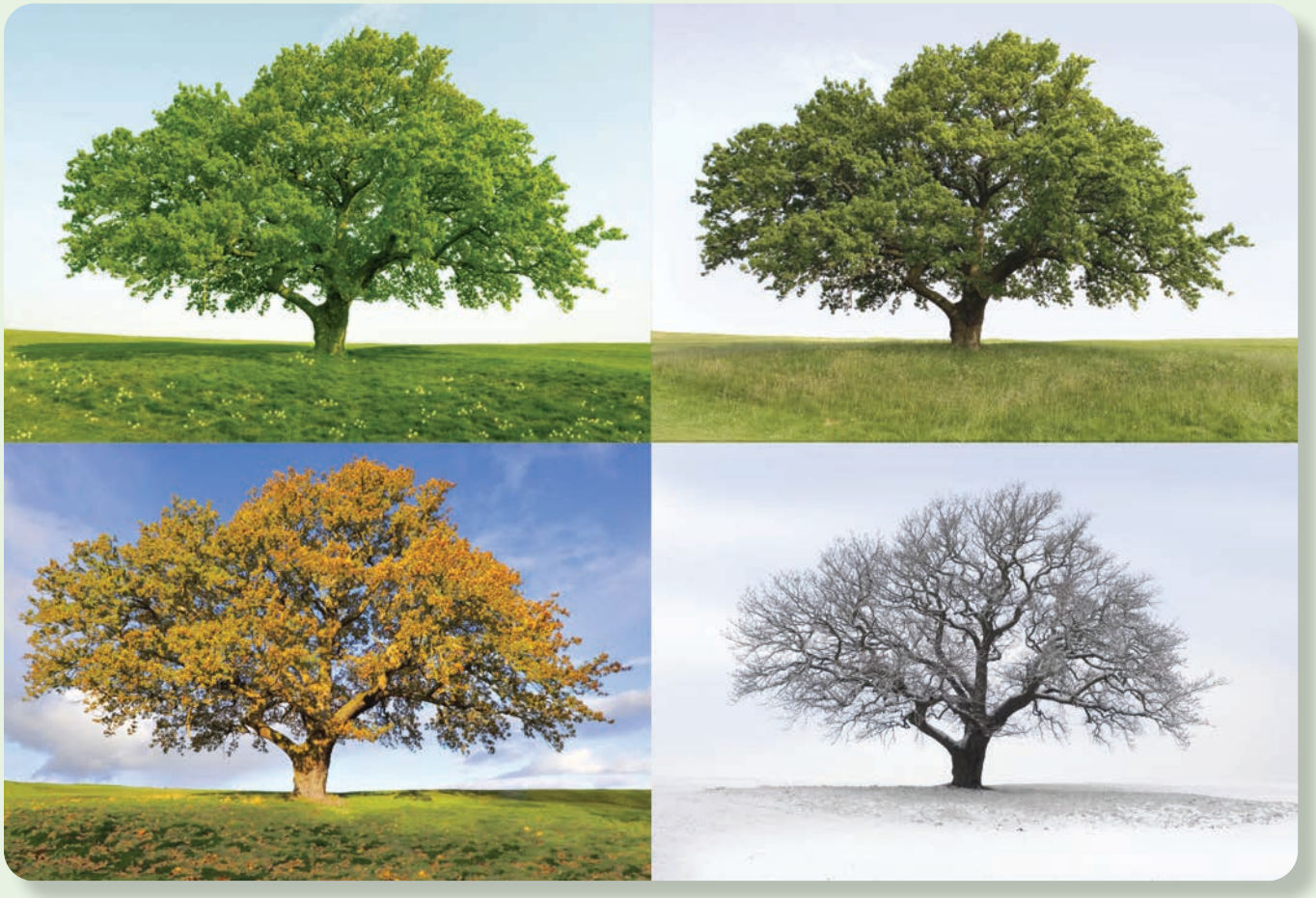
Trees are plants, too!

Trees have leaves, branches, a trunk, and roots.


Leaves
Branches
Trunk
Roots



Some trees keep their leaves all year.
They are called ***evergreen*** trees.



Other trees lose their leaves in the fall and grow new ones in the spring. They are called ***deciduous*** trees.

Once when I smelled a flower, I got some pollen on my nose!

Plants need help to make seeds.

A plant's flower has ***pollen*** inside of it. When an insect lands on the flower, some of the pollen gets on its body. The insect carries the pollen to other flowers.

This helps plants make seeds.

Plants cannot walk around and plant their own seeds.

They need help.

Some plants use the wind to spread their seeds.

Some plants grow fruit. Animals eat the fruit and drop the seeds.

And some plants grow seeds that stick to your socks. Then you spread the seeds!

Leaves

Stems

Roots

From the flower:

Seeds

Fruit

We eat all the different parts of plants.


Starfall
"Look!" said Foxy Loxy.
"Do you see the sky falling?"
"No, we don't see it falling,"
they said.
"Listen!" said Foxy Loxy.
"Do you hear the sky falling?"
"No, we don't hear it falling,"
they said.
BABY BLUES
PEARLS BEFORE SWINE
PICKLES

Not only do we eat plants, we often use them to make things.

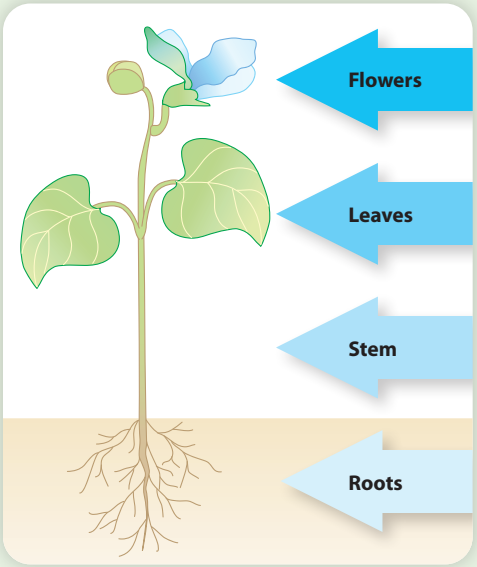
We also use plants to make our world more beautiful!


Thank you!
Thank you!

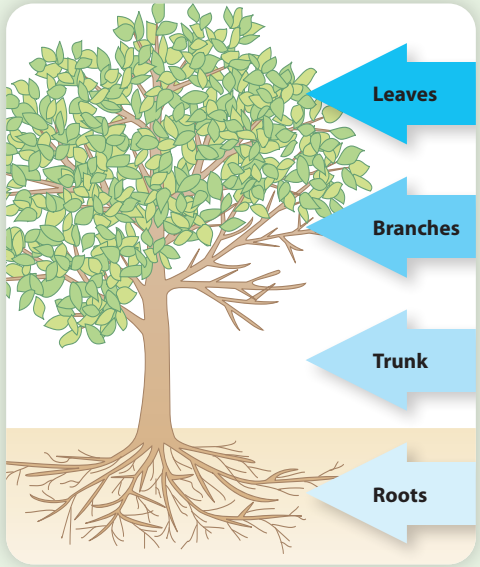
Plants give to us in so many ways every single day.

Have you thanked your favorite plant?

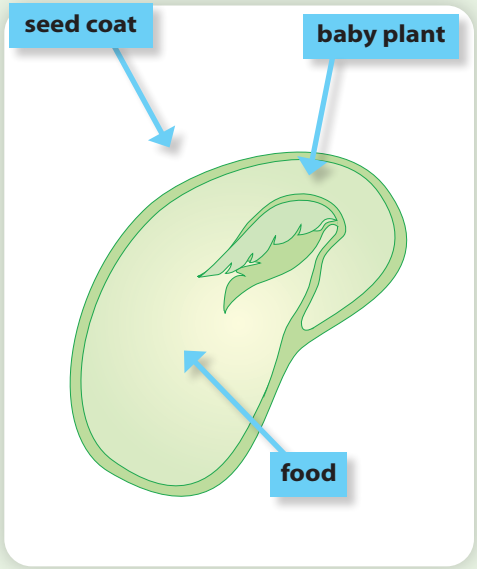
Words You Know



Plant



Tree



Seed

Pollen

Evergreen

Deciduous

More Information about Plants

Plants and Animals Help Each Other

Plants need water to make food from sunlight, but they also need something from the air. What is it? Plants need carbon dioxide. You can't see carbon dioxide. It's invisible. Do you know who makes carbon dioxide for plants?

When animals (humans, too!) breathe, they take oxygen from the air and let out carbon dioxide. Animals make the carbon dioxide that plants need. They help plants live!

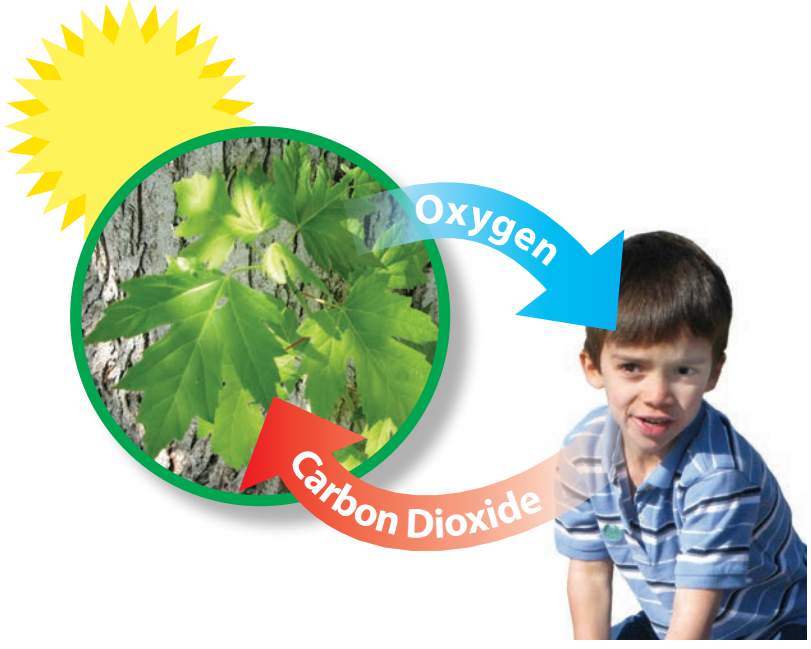
Plants do the opposite. They take in carbon dioxide and let out oxygen. Plants make the oxygen that animals need. They help animals live!

Plants and animals help each other. We call this the Oxygen Cycle.

Photosynthesis

Photosynthesis is how plants use light to produce their food, from which they get energy.

Plants contain chlorophyll, especially in their leaves. Chlorophyll is what makes leaves green. The chlorophyll captures energy from light, and uses it to produce food (carbohydrates) from carbon dioxide and water. This process also produces oxygen, which is released into the atmosphere. We call this process photosynthesis.



Index

About the Author

Alice O. Shepard was born in Southampton, England. The "O" stands for Ophelia. Alice moved to the United States by boat when she was 15 years old. She was nervous about moving to a new home so far away and leaving her friends behind. Luckily, one of her friends came along—her cat, Penelope! All during the cruise Alice was nervous about meeting new people. Penelope, on the other hand, was nervous about being surrounded by so much water!

Acknowledgements

Special thanks to Koen Beemer.

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