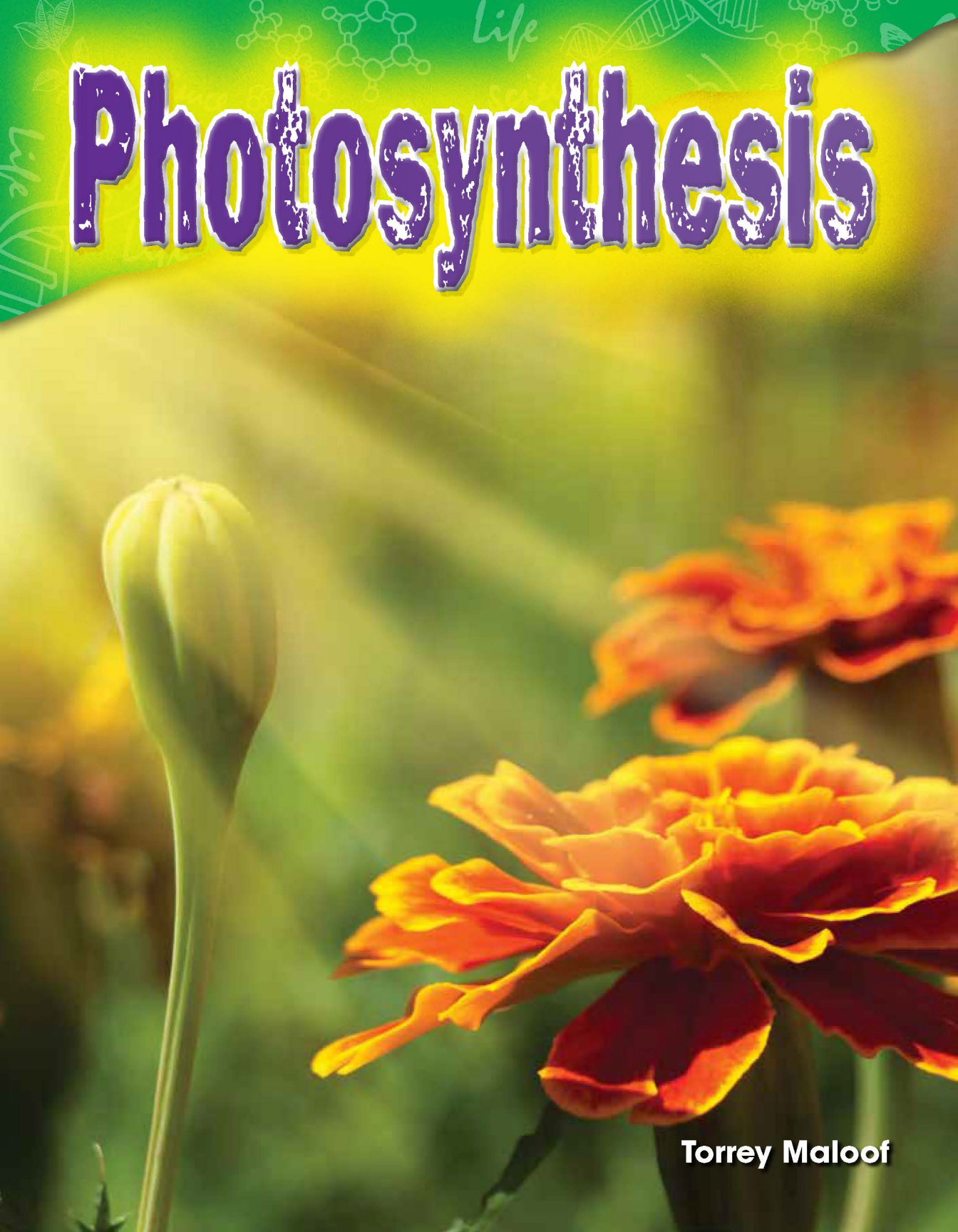
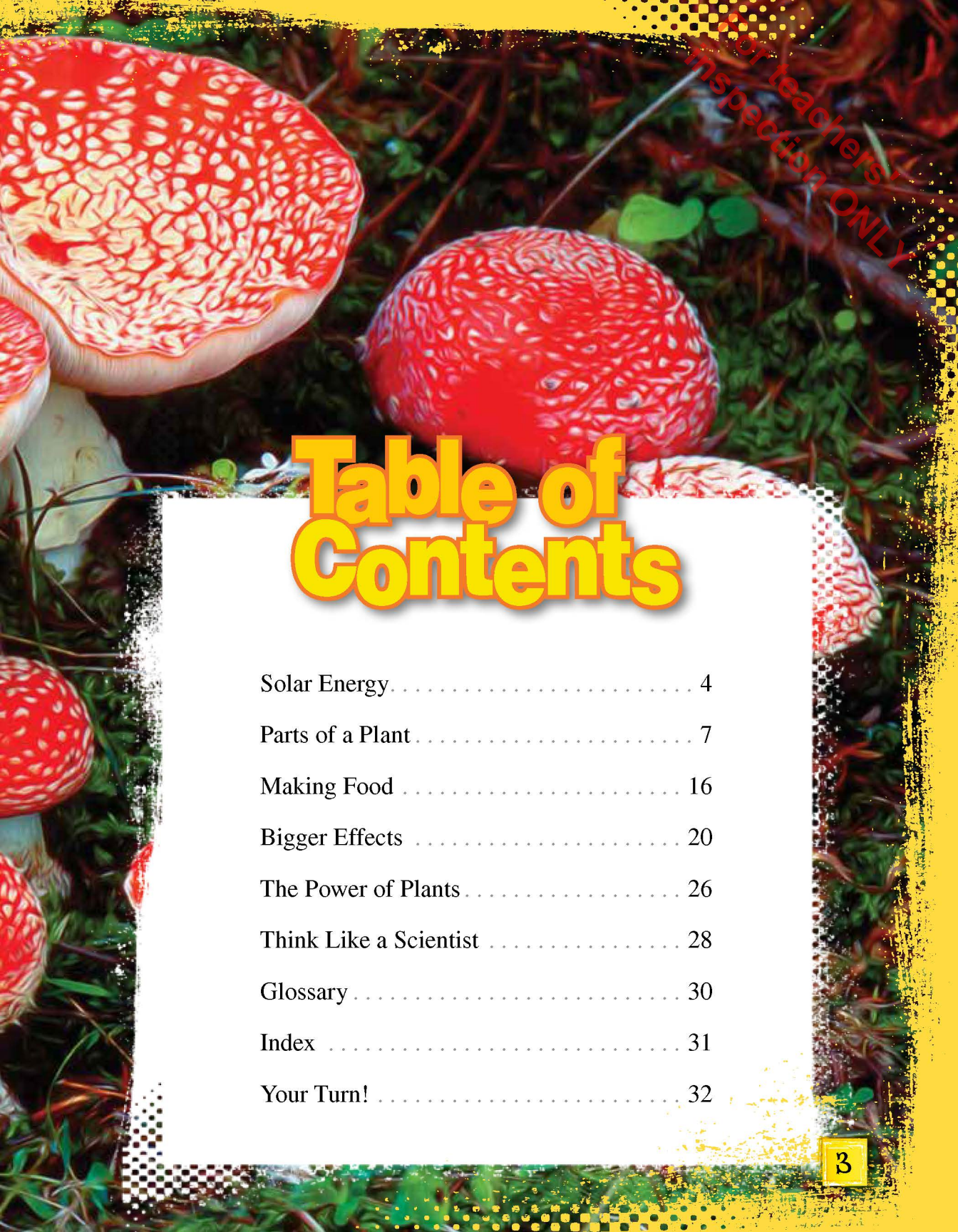
Photosynthesis



Torrey Maloof



For teachers' inspection ONLY

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Solar Energy

All living things on Earth need **energy** to live. You need energy. Animals need energy. And plants need energy, too. Plants get energy from a star that we know as the sun.

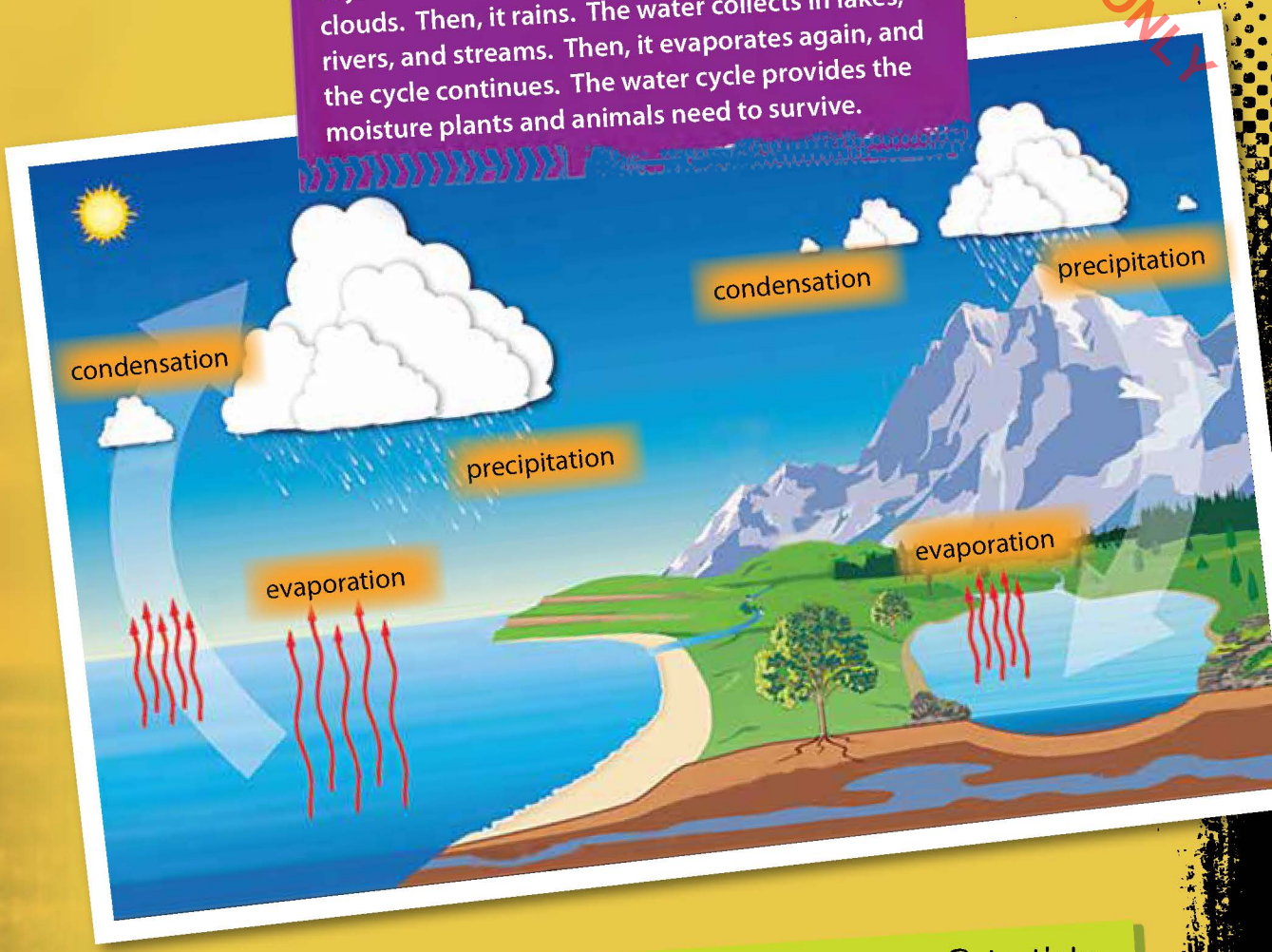
The sun is a massive and mighty star. It sends light and heat in every direction. A small portion of its solar energy shines on Earth. Its sunlight packs a powerful punch. It heats our planet and creates wind. It supports the water cycle. It also supplies plants with the energy they need to grow.



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The Water Cycle

The sun heats water. Water **evaporates** into the sky. It turns to **vapor**, **condenses**, and forms clouds. Then, it rains. The water collects in lakes, rivers, and streams. Then, it evaporates again, and the cycle continues. The water cycle provides the moisture plants and animals need to survive.



Humans are learning to use solar energy, too. Scientists are finding ways to use the sun's light to power cars, homes, and even our phones!

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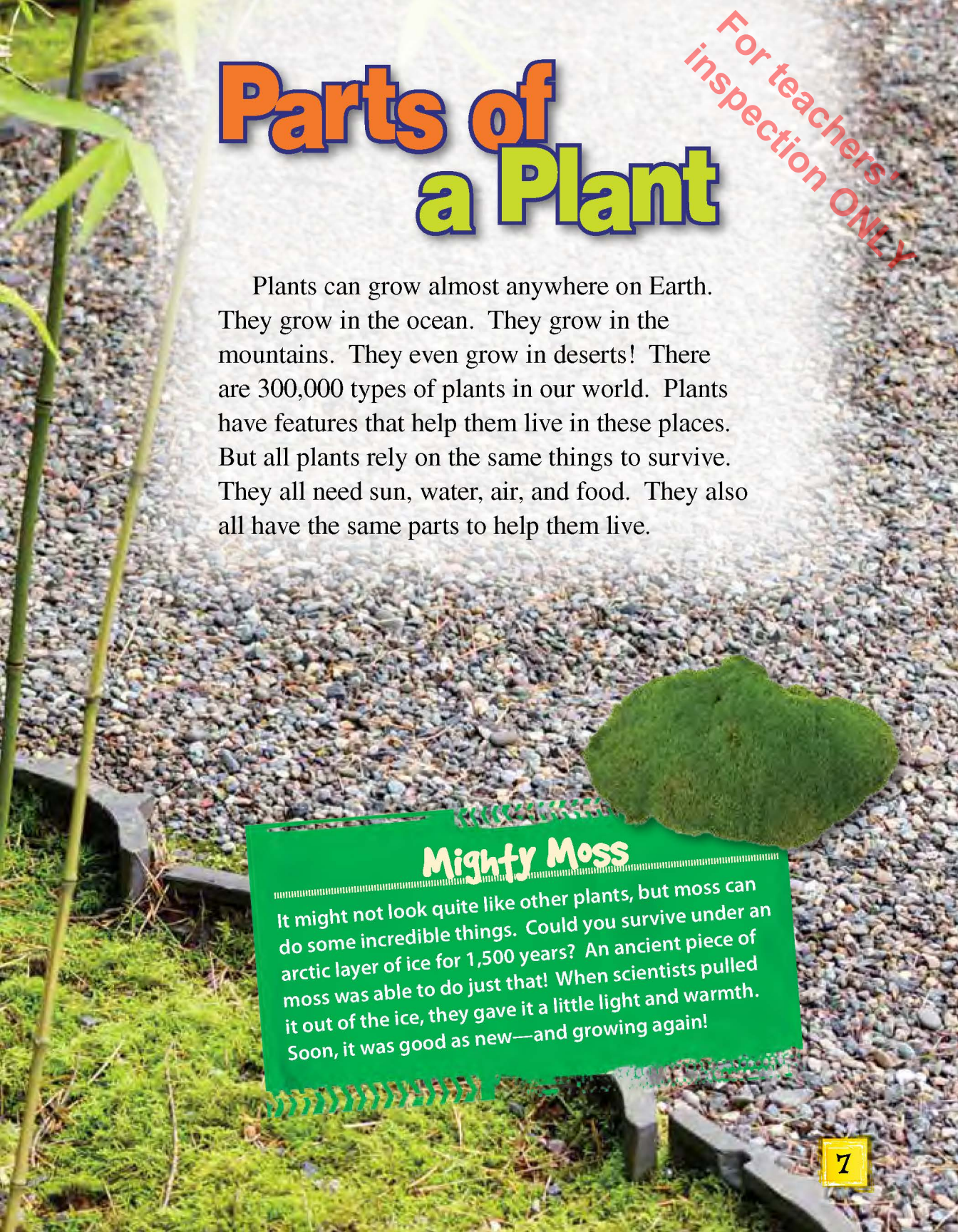


Bamboo is a fast-growing plant. Some types of bamboo can grow more than one meter (three feet) in one day!

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Parts of a Plant

Plants can grow almost anywhere on Earth. They grow in the ocean. They grow in the mountains. They even grow in deserts! There are 300,000 types of plants in our world. Plants have features that help them live in these places. But all plants rely on the same things to survive. They all need sun, water, air, and food. They also all have the same parts to help them live.



Mighty Moss

It might not look quite like other plants, but moss can do some incredible things. Could you survive under an arctic layer of ice for 1,500 years? An ancient piece of moss was able to do just that! When scientists pulled it out of the ice, they gave it a little light and warmth. Soon, it was good as new—and growing again!

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Growing Bridges

Roots aren't just for plants anymore. The War-Khasis tribe of India creates bridges from the roots of rubber trees! It takes 10 to 15 years for a bridge to grow. These bridges are strong enough to support the weight of 50 people!

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Roots

Have you ever thought about why plants don't blow away when it's windy? Or why they don't wash away when it's raining? It's because plants have strong and sturdy roots. Roots anchor plants into the ground. They grow underneath the soil. Humans absorb the **nutrients** they need to live and grow from food. But plants use their roots to absorb nutrients from the soil.

Root Recipes

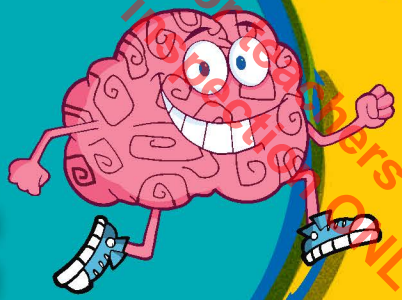
Roots can be the tastiest part of a plant. We eat the roots of carrots, turnips, rutabagas, potatoes, and onions.



red onions

Roots don't just hold plants into the ground. They also hold soil in place and help keep Earth healthy.

Think Like a Scientist



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What do plants need for photosynthesis? Experiment and find out!

What to Get

- camera
- cardboard
- grass seed
- potting soil
- shallow aluminum pan
- water

