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TEACHER GUIDE

PLANTS NEED WATER AND LIGHT GRADES K-2

COMMON MISCONCEPTIONS

- **Plants need soil to grow.**

Many students think all plants need soil to grow. Since plants are most frequently seen growing in soil, this is an understandable misconception. After discussing how plants grow and watching the video, students may wonder how the seeds are able to grow in cotton balls instead of soil. Explain to students that though soil is very helpful to many plants in helping them grow, plants do not always need soil to grow. Soil helps plants grow by providing a safe place for a seed to begin growing its roots. Soil also lets the roots anchor the plant and it can get additional nutrients from the soil such as minerals.

Remind students that plants always need water and sunlight, no matter where they grow.

PLANT GROWTH

Some students may already be aware that plants need water and sunlight for growth and may even have experience taking care of plants of their own. Even though the focus of this lesson is to teach how plants need both water and sunlight to grow, it is also important to discuss that different plants need different amounts of water and sunlight to grow. Too much water or sunlight can prevent a plant from growing. Some plants have adapted to not need much water, while others need to be watered much more frequently. This may also lead to a discussion on climate and how plants in different parts of the world have different needs.

PLANT PARTS

Different parts of a plant help it grow. A seed begins to grow by undergoing the process of germination, when it first begins to grow roots and a stem. As a plant grows taller, its stem grows longer and it will also grow leaves. Most plants grow flowers. All of these parts of a plant work together to help it survive and reproduce.

TIPS FOR TEACHERS

Students will benefit from observing seeds grow. Consider planting a seed during this lesson and over the coming weeks, using a science notebook to track plant growth and development of different plant parts. Teaching students to observe like scientists will help them notice patterns in plant growth and understand plant development over time. You can also compare and contrast what plants need to grow vs. the needs of animals. Both need water to survive. Animals eat food and plants do not. Plants need light, but animals can survive without light.

