

How Plants Change

Seasonal Changes

In nature, many plants live in environments where conditions change throughout the year. Seasonal changes can be especially difficult. Whatever the conditions, plants need to absorb sunlight, make food, grow, survive, and reproduce. How do the ways plants change seasonally help them to survive changing conditions?



winter



summer



spring



autumn

In the picture of autumn, the leaves are changing color and beginning to fall to the ground. What factors might affect when a tree begins to lose its leaves?

For plants, the major indicator of seasonal change is the change in the amount of light. For example, northern regions have fewer hours of daylight in the winter than they do in the summer. Plants respond to changes in the lengths of day and night. Special structures in plants' leaves detect these changes. When certain seasonal conditions are met, plants can begin budding, forming flowers, or dropping their leaves.

How Do You Grow?

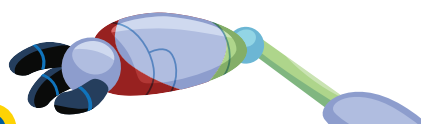
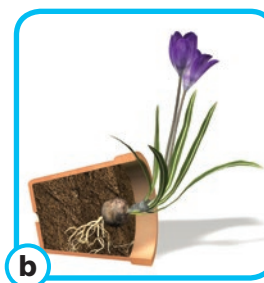
Read about plant behaviors, and then complete the activity.

Plants **respond to light**.

Plants need sunlight to make food, so a house plant that sits in front of a window will grow toward the light. If the plant is not turned regularly, it will become very lopsided. Circle the image (a or b) that shows what will happen if this plant is not turned at the window.



The roots of plants grow down toward the center of Earth in **response to gravity**. The stem of a plant grows in the opposite direction, away from the center of Earth. This usually results in the stem growing upward. Circle the image (a or b) that shows how the stem and roots will respond if this plant is knocked over.



Making Sense

Describe the evidence you have found to support your claim about why trees make fruit. Why is fruit produced only during certain times of the year?
