



## Backpack Tour: Prehistoric Adventure

ELA Connection Grade 4

# A Plant Puzzle



Living things like plants, animals, and people need energy to survive and grow. People eat food for energy, but most plants use energy that they get from sunlight.

When you look at plants such as a tree, flower, or grass, what do you see?

You might notice their stems, trunks, branches, leaves, roots, or flowers, but how do they grow? What are they made from? How did the plant make those parts?



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Life is a puzzle in many ways. People don't all agree on how life started or why it exists. Yet a simple way of thinking about how plants grow is to think of the plant itself as a piece of a larger puzzle.

Each plant is a part of its unique environment. Different environments could be oceans, forests, deserts, or cities. Each environment also has its own climate, which is partially based on how much sun and rain an area receives every year.

Since only certain plants grow in hot, cool, wet, or dry climates, each environment is made up of different types of plant life. A desert may grow palm trees and cacti, while a forest may grow tall pines or oak trees.

In order for a plant to grow, it needs three very important puzzle pieces: water, carbon dioxide, and light. Plants use their roots to take in water from the ground. They use their leaves to take in sunlight and carbon dioxide from the air.

Plants use these three puzzle pieces to make their own food in a process called photosynthesis. Using the energy from the sun, plants convert water and carbon dioxide into sugar. This sugar feeds the plant's growth from a seedling into an adult. In the process, the plant releases oxygen into the air.

Another important piece to the growth of many plants is soil. Using their roots, plants take in nutrients from the soil that help them grow. Giving a plant a spot in clean soil is important to make sure it doesn't absorb anything harmful from the dirt.

Plants make their food from carbon dioxide, water and light. They use this food to grow stems, trunks, roots, branches, leaves, and flowers. Now when you look at a tree, flower, or even a blade of grass, you can see all the pieces of the plant and how the entire puzzle fits together.



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1. Where do plants get their energy from?

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2. What is this passage mostly about?

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3. How does a plant make its own food?

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4. Explain whether plants can make their own food without sunlight.



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