

## Photosynthesis Reading Alternative Text

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We are alive because plants and other organisms take in light. All organisms, including humans, need energy for growth, repair, and reproduction. However, most living organisms can't use light energy directly for their energy needs. We need some way to change that light into chemical energy. Plants change light energy into chemical energy through photosynthesis.

### What is photosynthesis?

**Photosynthesis** is the way plants change sunlight energy into energy that is stored. It gives chemical energy for almost all types of living things. Glucose is an energy-rich sugar molecule. It is the most essential carbohydrate molecule. The process of photosynthesis is driven by light energy to make glucose molecules from water and carbon dioxide. Oxygen is let go as waste. The glucose molecules give living things two important resources: energy and material for growth.

- **Energy.** Energy. The glucose molecules give cells fuel. This chemical energy can be made through processes like [cellular respiration](#) or [fermentation](#) and used for the cell's immediate energy needs. Starches are a group of molecules that link many sugar molecules together. They give the plant energy for later.
- **Growth.** Air is mostly made of nitrogen, oxygen, and carbon dioxide. Plants take in carbon dioxide from the air.

Photosynthesis Reading Alternative Text (continued)

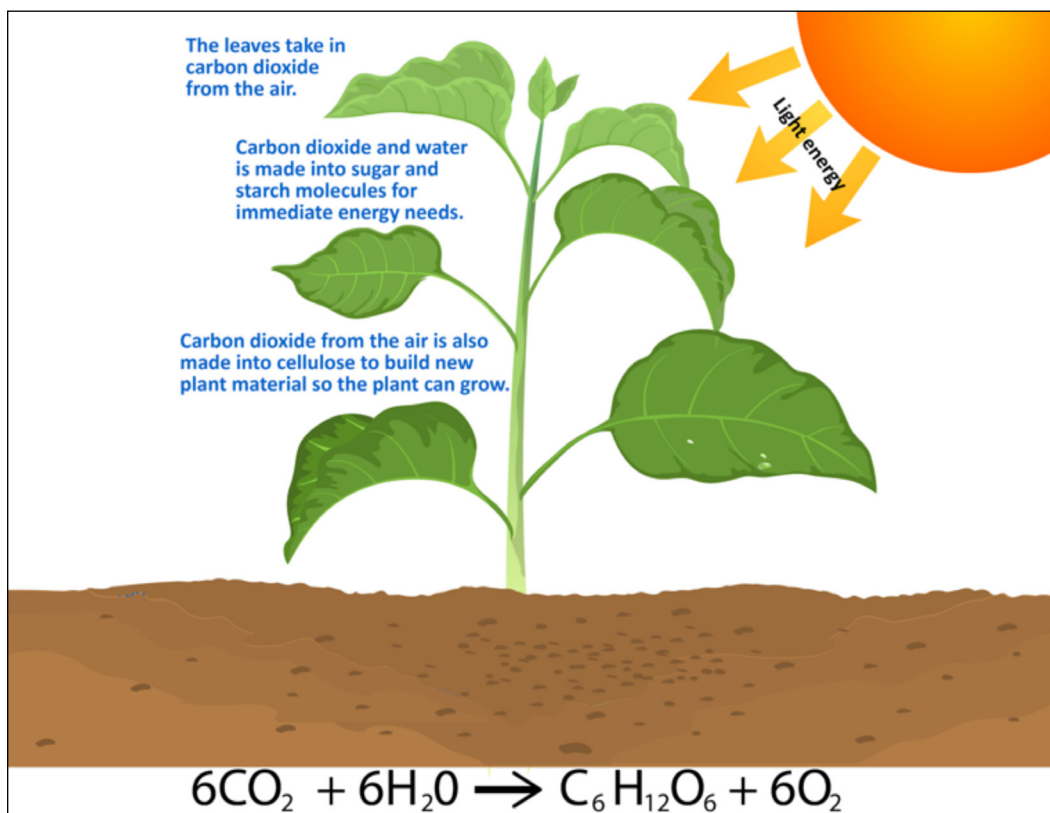


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Carbon from the carbon dioxide in the air can be put into other molecules besides sugar. Carbon makes up most of the building blocks that plants use to build new leaves, stems, and roots. The carbon that is put into sugars during photosynthesis can be used to build other types of molecules cells need. Cellulose is a molecule. It is made from long strings of glucose molecules, as in a starch. In cellulose, the glucose molecules are put together in a different way than starch. Humans can digest starch. They cannot digest cellulose.