

PHOTOSYNTHESIS

What is Photosynthesis?

The word photosynthesis can be separated to make two smaller words:

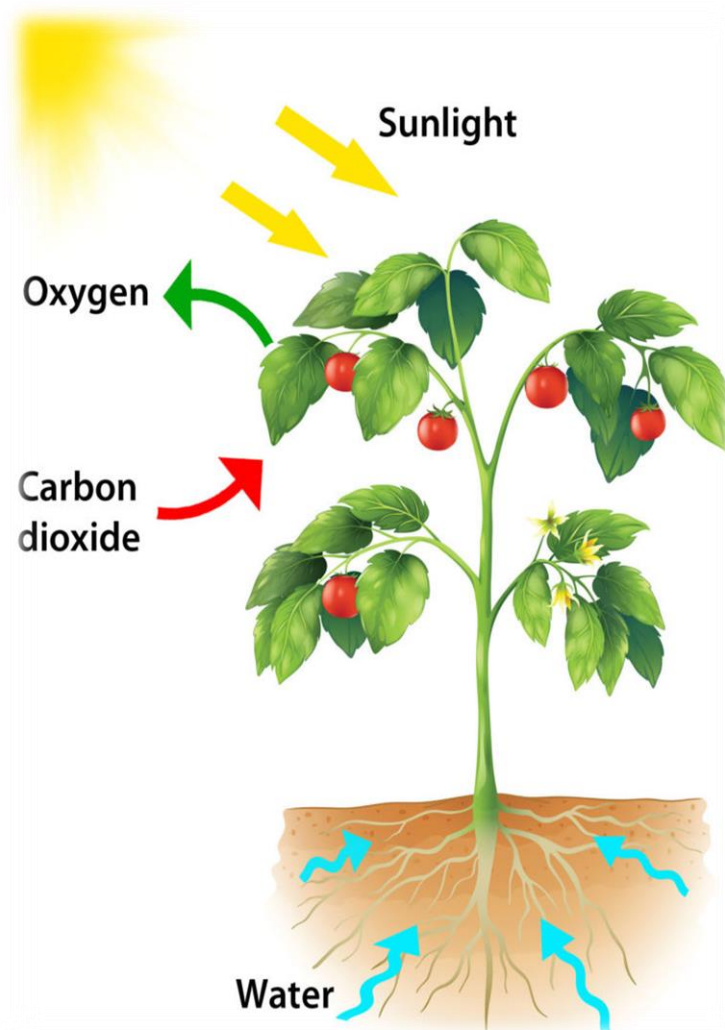
- “photo” which means light
- “synthesis” which means putting together

Most plants can make their own food whenever they need it. This is done using light and the process is called photosynthesis.

Photosynthesis is the process by which plants make their own food

To make food plants need:

- **carbon dioxide** → Carbon dioxide from the air passes through small pores (holes) in the leaves. These pores are called stomata.
- **Water** → Water is absorbed by the roots and passes through vessels in the stem on its way to the leaves.
- **Sunlight** → Sunlight is absorbed by a green chemical in the leaves



Photosynthesis takes place in the leaves of plants. The leaves are made up of very small cells. Inside these cells are tiny structures called chloroplasts. Each chloroplast contains a green chemical called chlorophyll which gives leaves their green color.

- Chlorophyll absorbs the sun's energy.
- It is this energy that is used to split water molecules into hydrogen and oxygen.
- Oxygen is released from the leaves into the atmosphere.
- Hydrogen and carbon dioxide are used to form glucose (sugar) or food for plants.