

How to code a plant

This activity was created by Robyn.

Plants grow because of a process called photosynthesis. The process of photosynthesis follows an algorithm, conditionals, loops, uses data and often encounters bugs... and we are not talking about the buzzing kind. These are all prominent words within coding language.

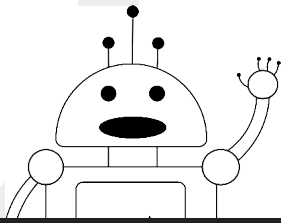
Algorithm: A sequence of instructions that is intended to solve a larger problem.

Conditionals: A sentence of instructions that allows the algorithm or program to make choices depending on conditions.

Loops: A sentence of instructions that repeats a certain part of the algorithm or program.

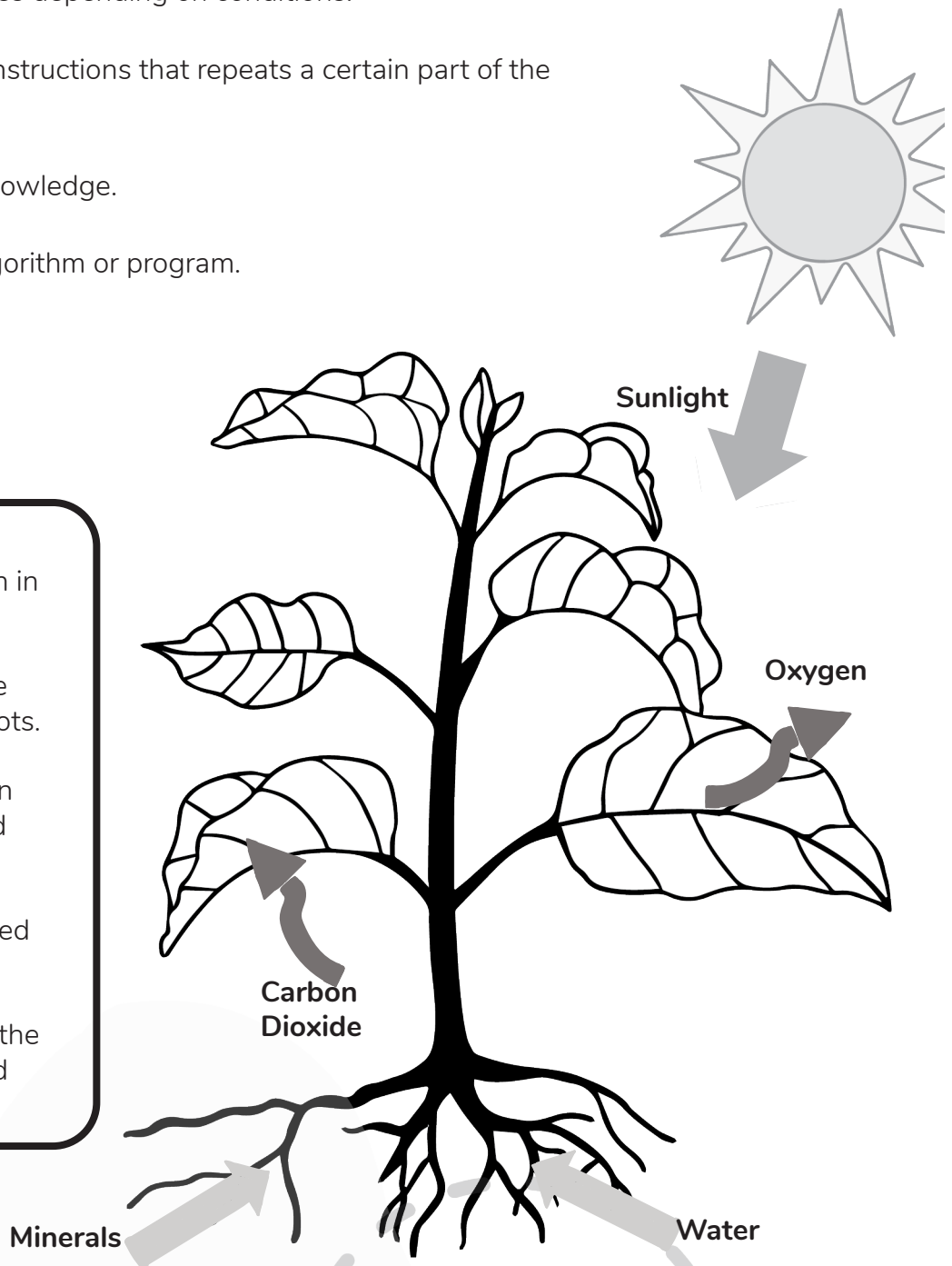
Data: Information or knowledge.

Bug: An error in the algorithm or program.



The process of photosynthesis as shown in the graphic:

1. Minerals and water are drawn up through the roots.
2. Carbon dioxide is taken in through the leaves and oxygen is released.
3. The sunlight is absorbed into the plant.
4. Through this process, the plant produces sugar and continues to grow.



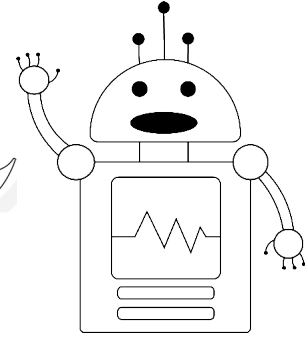
Turn the page to continue this activity!

SLO : 7-1-01

Date: _____

Name: _____

Can you sort the main concepts of photosynthesis into their corresponding coding concept? Use the words from the word bank below.



Algorithm	Conditional	Loop	Data	Bug

WORD BANK

- Overwatering
- Insects
- Photosynthesis Process
- Watering of the plant
- Flood
- Shade
- Dryness
- Deepness of the roots
- Amount of water needed
- Type of plant
- Nutrients in the soil
- Location
- Carbon dioxide
- Amount of oxygen released