

Topic	The seven life processes	Level	Key Stage 3 and GCSE (or any course for students aged 11-16)
Outcomes	<ol style="list-style-type: none"> 1. To describe the 7 characteristics of life 2. To understand the term misconception 3. To explain how plants perform the different life processes 		

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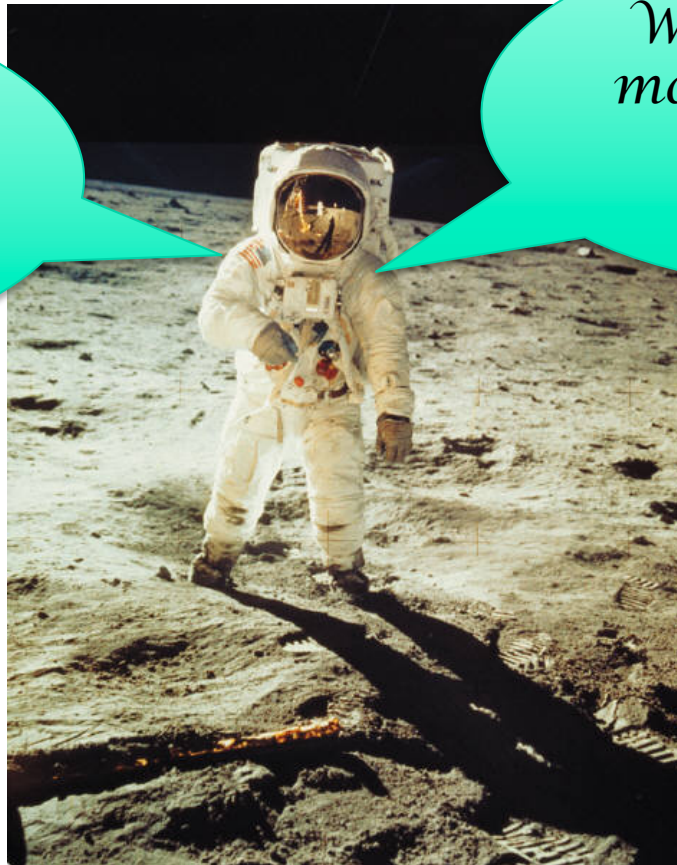
Are plants living? Which of these processes **can't** plants do?

- Movement
- Reproduction
- Sensitivity
- Growth
- Respiration
- Excretion
- Nutrition



What are misconceptions?

*There is no
gravity on the
moon.*



*We can see the
moon because it
emits light.*

Instructions

In your groups:

1. Come up with your own definition of the life process on your card
2. Brainstorm why you think the misconception is wrong
3. Turn over your card for more information
4. Come up with one piece of evidence you could use to persuade someone that their misconception is wrong
5. Write a short letter explaining why the misconception is wrong and what the **correct conception** should be. Use your books to find more information. You will read this letter out to the class at the end of the lesson.

Group A

Nutrition

Misconception:

Many people believe that plants get their food from the soil.

fold along here

Correction:

Plants make their own food (glucose) by photosynthesis. They take CO₂ from the air and in the presence of water from the soil, convert this into glucose. This happens inside the leaf.

Group B

Respiration

Misconception:

Many people believe that plants only respire at night time.

fold along here

Correction:

Plants respire all the time as they need to release the energy from glucose made in photosynthesis. The energy is used to make new cells and transport substances into and out of cells. If respiration stops, plant cells will die.

Reproduction

Misconception:

Many people believe that plants only reproduce by asexual reproduction.

fold along here

Correction:

Most plants can reproduce by sexual reproduction. Plants make pollen and eggs by meiosis and then these join together to produce a zygote during fertilisation. This fertilised egg will develop into a seed which, after germination, will grow into an adult plant.

Movement

Misconception

Many people believe that plants cannot move.

fold along here

Correction

Plants can move by producing seeds that can travel by wind, water or animals. This is slower than when animals move but it does allow plants to travel from one place to another. Plants can also move by growing towards different stimuli e.g. light or water. Some plants like the Venus fly trap move to catch their prey.

Excretion

Misconception:

Many people believe that plants don't excrete waste products.

fold along here

Correction:

Waste oxygen and carbon dioxide gases are excreted from a plant through pores in the leaf called stomata.

Living or non-living after it has
been picked?

