



What is Life?

ACTIVITY A: ALIVE OR NOT?



1. What are some living things?
2. How do we know if something is alive or not?
3. Look at the following pictures and decide which things are living and which are not.



ACTIVITY B: HOME BIOBLITZ

Explore inside your house:

1. What is currently living in your house?
2. What is in your house that came from a living thing?
3. What living things can you see outside of your house?
4. Can you find clues there are living things that you can't see?
5. Do different parts of your house have different organisms living in them? Why?
6. Does this change throughout the day?

ACTIVITY C: OUTSIDE BIOBLITZ

Go for a walk:

1. What living things can you find?
2. Are there different organisms outside compared to inside your house?
3. Can you find clues there are living things that you can't see?
4. Do different areas have different organisms living in them? Why?
5. What would we expect to see at this time of year?
6. How would walking at a different time of day change the living organisms you can see?

ACTIVITY D: ORGANISING ORGANISMS

Write down all of the different organisms you found on individual pieces of paper.

1. How many ways can you group these organisms?
2. Draw a map of your house, and write down where you would find different organisms.
3. Research three of the organisms you found to learn:
 - a. *What is their scientific name?*
 - b. *Do they have a name in Te Reo?*
 - c. *What do they eat?*
 - d. *Are they from New Zealand (native) or have they been brought here (introduced)?*
 - e. *Why did you find them where you did?*

MRSGREN

No one has actually agreed on a standard definition for life, but there is one particular set of requirements that most people use – MRSGREN.

MRSGREN is an acronym used to help remember the necessary features of all living organisms: Movement, Respiration, Sensitivity, Growth, Reproduction, Excretion, Nutrition. The huge diversity of environments on our planet means that the way organisms achieve these features can be equally diverse.

ACTIVITY E: MEETING MRSGREN

1. Find out what each of the seven words for MRSGREN mean, and then see how four of the organisms you found during your bioblitz do them.
2. By using MRSGREN, decide whether the following things are alive:
 - a. *Mushrooms*
 - b. *Water*
 - c. *Viruses*
 - d. *Fire*

ACTIVITY F: ADAPTATIONS

An adaptation is something an organism does or has that helps it to survive and reproduce in its environment. Investigate these examples of adaptations to find out how they might help (or hurt) an organism's ability to survive and reproduce:

- Giraffe necks
- Jellyfish tentacles
- Tree trunks
- Flower petals
- Peacock tail feathers
- Tiger stripes

ACTIVITY G: SEEDING GOOD IDEAS

While plants use seeds to reproduce, dropping them straight down to sit underneath the parent plant is a very bad idea

1. Why?

To make sure their seeds have the best chance of survival, plants have come up with clever ways to spread them to new areas of their environment.

2. Can you think of or find some examples of this?

Using craft materials, design a seed that has adapted to be dispersed by:

- Wind
- Explosion
- Bird
- Attaching to passing animals
- Stream
- Ocean currents

ACTIVITY H: HUMANS AND THE LIVING WORLD

Over thousands of years, humans have changed other living organisms to look a certain way or do a certain thing. This has resulted in animals and plants that look very different to their original form.

1. Take an animal or plant that humans make use of, and investigate what they looked like before humans changed them.