

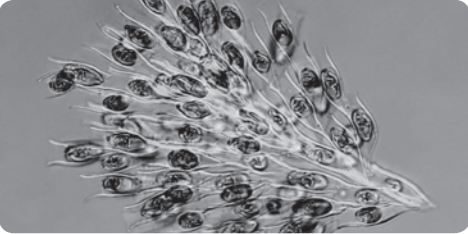
What's a living thing?

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Everything in the world is either living or non-living. All living things have certain characteristics that are the same.

Living things have cells
All living things are made up of cells. A cell is very small – it can only be seen under a microscope. A cell has water in it, as well as other materials.

Some living things, such as bacteria, are made up of just one cell. Other living things are made up of many, many cells. All the cells work together to keep the living thing alive.



Cells seen from under a microscope

characteristics the features or qualities of a thing
microscope a machine used to see very tiny things
bacteria tiny, single-celled living things that can only be seen under a microscope

Living things grow
All living things grow. Most living things begin small and grow until they become an adult. Some living things begin their lives looking like their parents, but are much smaller, such as many bugs.

Other living things look quite different to their parents. They grow and change over time to become an adult. For example, a tadpole changes into a frog when it becomes an adult.

Living things respond
All living things respond to things around them. They react to stimuli such as touch, light, heat and smell. For example, the leaves of some plants droop in the heat, a cat purrs when you pat it and a person squints in bright light.

stimuli things from the outside, such as loud noises or bright lights, that make living things react

Living things reproduce
All living things reproduce. This means they make more of themselves. People and some animals have babies by giving birth to live young. Other animals lay eggs.

Most plants grow from seeds. Some plants grow from a cutting. This means a piece of the plant is cut off and planted in soil. The cutting grows into a new plant.

Living things need energy
All living things need energy. They get energy by taking in nutrients. People and animals get nutrients from the foods they eat. Most plants get nutrients from the soil they grow in.

Living things die
All living things die. Some only live for a short time. The adult mayfly is only alive for half an hour to one day. Some living things, such as big redwood trees, can live for thousands of years.

nutrients things a living thing needs to grow and heal

Fact file

This is an informative text written as a scientific report. It outlines how living things can be differentiated from non-living things by observing a range of characteristics, such as growth, reproduction, the need for energy, response to stimuli and death. The text reports on these characteristics and provides examples. It also explores plants, animals and single-celled living things.

About the report

Purpose

Reports are factual texts that provide us with information about a topic.

Structure

- Title and subheadings
- Opening statement – outlines the topic

- Paragraphs – include topic sentences
- Photographs – with captions

Language features

- Complex sentences – containing more than one idea
- Specialised vocabulary – words related to the topic
- Third person
- Present tense
- Facts – rather than opinions

Tuning in

- What do you think a living thing is?
- What makes something a living thing?

Record students' responses to this question on a Concept map. **P**

Have pairs of students look around them and make a list of five living things and five non-living things.

Breakaway tasks

Remembering

- 1 List three characteristics of a living thing and three characteristics of a non-living thing.
- 2 Tell a partner what you know about living things.
- 3 Choose five new words from the text and write a glossary.

Understanding

- 4 Choose an animal and a plant. List three differences and three things that are the same about them.
- 5 Explain why an apple tree is a living thing.

Applying

- 6 Use a magnifying glass to look at things from nature, such as a leaf or a feather. Draw what you see.

Analysing

- 7 Write a checklist to help you decide if something is living or non-living.
- 8 Prepare a presentation about the characteristics shared by all living things.

Evaluating

- 9 Decide whether the following things are living or non-living: smoke, mushroom, volcano, kangaroo, worm, rain, gum tree, moth. Explain each decision.

Creating

- 10 Plan an excursion for your class to help you learn about living things. Where would you go? Why?

Discuss the lists and highlight any classifications that were contentious.

- What are the differences between the living and non-living things on your list?

Look within the text

Read the opening paragraph on page 4. Have students predict what some of the characteristics of living things might be. Discuss students' existing knowledge of what a cell is.

Read the remainder of page 4.

- What is a cell?
- What do cells contain?
- What do cells do?
- How many cells do living things have?

Students read pages 5 and 6 with a partner, taking turns to read a section each.

Observe as individual students read aloud. Do they read on to confirm when they are decoding an unknown word?