

# Year 4

## Living in Environments



### How are you working scientifically?

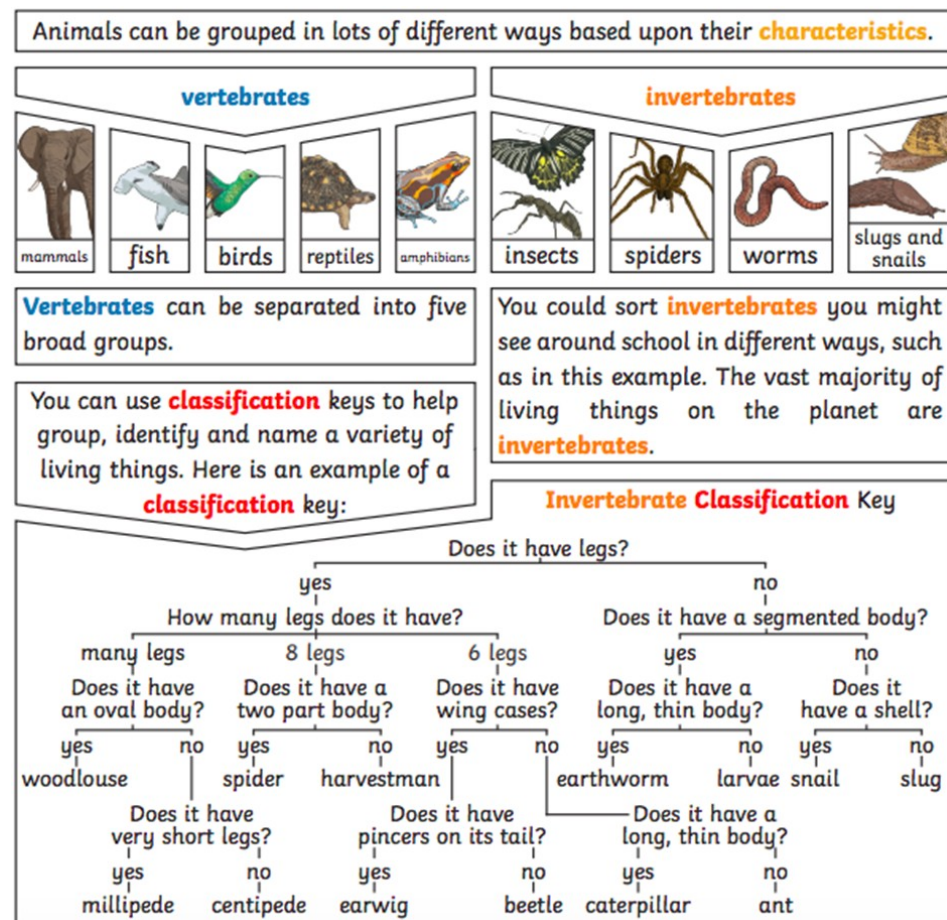
Set up simple practical enquiries, comparative and fair tests  
Make systematic and careful observations  
Gather, record, classify and present data in a variety of ways  
Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables  
Report on findings from enquiries  
Use results to draw simple conclusions  
Identify differences, similarities or changes related to simple scientific ideas and processes



### Pre existing knowledge

- Electricity is a form of energy that can be carried by wires and is used for heating and lighting, and to provide power for devices.
- Sources of light and sound may need electricity to work.

Vocabulary	
Organisms	This is another word that can be used to mean 'living things'.
Life processes	The things living things do to stay alive.
Habitat	The specific area or place in which particular animals or plants may live.
Environment	An environment contains many habitats and these include areas where there are both living and non-living things.
Endangered species	A plant or animal where there are not many of their species left and scientists are concerned that the species may become extinct.
Extinct	When a species has no more members alive on the planet, it is extinct.



**MRS. NERG Movement**

All living things move.

- Animals move around to get from place to place.
- Plants grow and turn towards the light.

**MRS. NERG Respiration**

All living things respire.

- Plants and animals use oxygen in the air to turn the food they eat into energy.

**MRS. NERG Sensitivity**

All living things are sensitive.

- Every living thing can detect changes in their surroundings.

**MRS. NERG Nutrition**

All living things need nutrition.

- Food is eaten to provide energy to live.
- Green plants make their own food using sunlight.

**MRS. NERG Excretion**

All living things excrete.

- Waste products are removed from the body.
- Both plants and animals have to get rid of excess gas and water.

**MRS. NERG Reproduction**

All living things reproduce.

- Animals have young.
- Plants produce seeds from which more plants grow.

**MRS. NERG Growth**

All living things grow.

- Animals grow from babies to adults.
- Seeds grow into plants.

To stay alive and healthy, all living things need certain conditions that let them carry out seven life processes:

Vocabulary	
Vertebrates	Animals with a backbone.
Invertebrates	Animals without a backbone.
Specimen	A particular plant or animal that scientists study to find out about its species.
Characteristics	The distinguishing features or qualities that are specific to a species.

Changes to an <b>environment</b> can be natural or caused by humans. Changes to an <b>environment</b> can have positive as well as negative effects. Here are some examples of things that can change an <b>environment</b> .	<b>Natural</b> <ul style="list-style-type: none"> <li>earthquakes</li> <li>storms</li> <li>floods</li> <li>droughts</li> <li>wildfires</li> <li>the seasons</li> </ul>	<b>Human-Made</b> <ul style="list-style-type: none"> <li>deforestation</li> <li>pollution</li> <li>urbanisation</li> <li>the introduction of new animal or plant species to an <b>environment</b></li> <li>creating new nature reserves</li> </ul>	Plants and animals rely on the <b>environment</b> to give them everything they need. Therefore, when <b>habitats</b> change, it can be very dangerous to the plants and animals that live there.
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