

Living things and their habitats- Year 5- Kapow unit- Life cycles and reproduction

Previous learning

Recognise that living things can be grouped in a variety of ways
 Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
 Recognise that environments can change and that this can sometimes pose dangers to living things.

Key Vocabulary for Year 5

Mammal	
Reproduction	
Insects	
Amphibian	
Bird	
Offspring	

Previous vocabulary

Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, snails, slugs, worms, spiders, insects, environments, habitats

Useful links

- <https://www.stem.org.uk/resources/community/collection/12775/year-5-living-things-and-their-habitats>
- <https://www.hamilton-trust.org.uk/science/year-5-science/living-things-and-their-habitats-art-living/>
- <https://www.theeducationpeople.org/media/1629/pssow-key-stage-2-year-5-living-things-and-their-habitats-sample.pdf>

Key scientists you could look at...

Jean-Baptiste Lamarck

Scientific skills

Working scientifically	Questioning and enquiry	Observing and measuring	Investigating	Recording	Grouping and classifying
Use practical scientific methods, processes and skills, covered in a variety of ways throughout the year	Begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables when necessary.	Begin to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate. Begin to identify patterns that might be found in the natural environment. Begin to make own decisions about what observations, measurements, and equipment to use. Begin to interpret data. Begin to make accurate and precise measurements.	Begin to test results to make predictions to set up further comparative and fair tests. Begin to recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. Begin to suggest improvements to the method and give reasons.	Begin to record data and results of increasing complexity using scientific diagrams and tables, classification keys, tables and bar and line graphs. Begin to report and present findings from enquiries. Begin to decide how to record data from a choice of familiar approaches. Begin to choose how best to present data	Begin to use and develop keys and other information to record, identify, classify and describe living things and materials.

Experiment and activity ideas

Create comparison life cycles	Create plant reproduction diagrams	Create animal reproduction diagrams	
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Knowledge- objectives


Describe the differences in life cycles of a mammal, amphibian, insect and a bird

Describe the life process of reproduction in some plants and animals


Resources in school

Use of the forest school site to observe living things in their habitats, bug finders, magnifying glasses.


Humans develop inside their mothers and are dependent on their parents for many years until they are old enough to look after themselves.




Amphibians such as frogs are laid in eggs then, once hatched, go through many changes until they become an adult.



Some animals, such as butterflies, go through **metamorphosis** to become an adult.

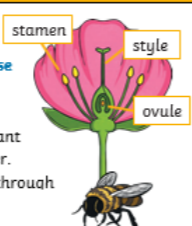


Birds are hatched from eggs and are looked after by their parents until they are able to live independently.




Plants

Most plants contain both the male sex cell (pollen) and female sex cell (ovules), but most plants can't **fertilise** themselves. Wind and insects help to transfer pollen to a different plant. The pollen from the stamen of one plant is transferred to the stigma of another. The pollen then travels down a tube through the style and fuses with an ovule.



Some plants, such as strawberry plants, potatoes, spider plants and daffodils use **asexual reproduction** to create a new plant. They are identical to the parent plant.




Reproduction in mammals

- Mammals use **sexual reproduction** to produce their offspring.
- The male sex cell, called the sperm, **fertilises** the female sex cells.
 - The **fertilised** cell divides into different cells and will form a baby with a beating heart.
 - The baby will grow inside the female until the end of the **gestation** period when the baby is born.

Some living things, such as plants, contain both the male and female sex cells. In others, such as humans, they contain either the male or female sex cell.