

# Evolution and inheritance- Year 6- Kapow unit- Evolution and inheritance

## Previous learning

Key Vocabulary for Year 6	
Fossils	
Adaptation	
Evolution	
Characteristics	
Reproduction	
Genetics	

Previous vocabulary
Useful links

<https://www.stem.org.uk/resources/community/collecion/12648/year-6-evolution-and-inheritance>

<https://www.hamilton-trust.org.uk/science/year-6-science/game-survival/>

## Key scientists you could look at...

Charles Darwin

## Scientific skills

Working scientifically	Questioning and enquiry	Observing and measuring	Investigating	Recording	Grouping and classifying
To use practical scientific methods, processes and skills	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	Take measurements using a range of scientific equipment with increasing accuracy and precision. Take repeat readings where appropriate. Identify patterns that might be found in the natural environment. Make own decisions about what observations, measurements to use and whether or not to repeat them. Choose most appropriate equipment. Interpret data and find patterns. Select equipment independently. Use accurate and precise measures	Use test results to make predictions to set up further comparative and fair tests. Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. Suggest improvements to methods and give reasons. Decide when it is appropriate to do a fair test.	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs. Report and present findings from enquiries. Decide how to record data from a choice of familiar approaches. Choose how best to present data	Use and develop keys and other information records to identify, classify and describe living things and materials.

## Experiment and activity ideas

Beak investigation with chopsticks, tweezers and spoons	Investigate adaptation in animals	How could humans adapt to survive in changing environments	Identify variations between themselves and classmates	Design an animal or plant that could survive in extreme conditions
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## Knowledge- objectives


Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago

Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents


Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

## Resources in school


X rays, microscopes




**Offspring**  
Animals and plants produce offspring that are similar but not identical to them. Offspring often look like their parents because features are passed on.




**Variation**  
In the same way that there is variation between parents and their offspring, you can see variation within any species, even plants.




**Adaptive Traits**  
Characteristics that are influenced by the environment the living things live in. These adaptations can develop as a result of many things, such as food and climate.



**Inherited Traits**  
Eye colour is an example of an inherited trait, but so are things like hair colour, the shape of your earlobes and whether or not you can smell certain flowers.



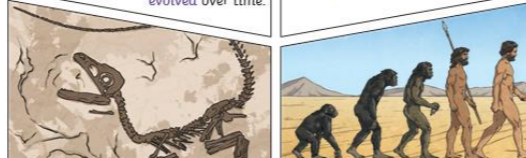
**Habitats**  
A good habitat should provide shelter, water, enough space and plenty of food.



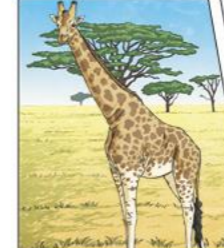
**Environments**  
There are many types of environment around the world. Polar regions, deserts, rainforests, oceans, rivers, and grasslands are all environments.

Fossils are the preserved remains, or partial remains, of ancient animals and plants. Fossils let scientists know how plants and animals used to look millions of years ago. This is proof that living things have evolved over time.

Evolution is the gradual process by which different kinds of living organism have developed from earlier forms over millions of years. Scientists have proof that living things are continuously evolving - even today!



Living Things	Habitat	Adaptive Traits
polar bear	arctic	Its white fur enables it to camouflage in the snow.
camel	desert	It has wide feet to make it easier to walk in the sand.
cactus	desert	It stores water in its stem.
toucan	rainforest	Its narrow tongue allows it to eat small fruit and insects.



**Natural Selection**  
Fossils of giraffes from millions of years ago show that they used to have shorter necks. They have gradually evolved through natural selection to have longer necks so that they can reach the top leaves on taller trees.