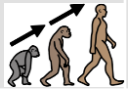
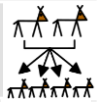
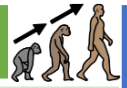
Evolution and Inheritance | Class 4

Vocabulary

evolution 	Gradual change in an organism's characteristics over many generations
Inheritance	Passing on characteristics to offspring
organisms 	An animal or plant.
characteristics	A feature or quality belonging to a person or animal
offspring 	The young of an animal or the seedling of a plant
generation 	The time between when an organism comes into being and when it reproduces
breed 	Produce offspring
Variation 	A change or slight difference
genes 	Part of a cell of a living thing which controls its physical characteristics
Natural Selection 	The process where organisms that are better adapted to their environment survive and produce more offspring
adaptation 	Changing to become better suited to their environment
cell 	The basic building block of living things. Every animal or plant is made of millions of these.

The Process of Evolution



1. More organisms are born than can survive.
2. These individuals all have slight variations between them.
3. Some of these variations are helpful and improve an organism's chance of survival.
4. Those that survive pass their characteristics onto their offspring.
5. Over time these helpful variations are passed on to the next generation.
6. This process takes thousands of years and can't be seen from one generation to the next.

Charles Darwin

Dates	1809 - 1882
Famous Book	On the Origin of Species
Famous Achievement	Developed the theory of evolution which attempts to explain why there are different species of animals
Quote	"A man who dares to waste one hour of time has not discovered the value of life."
Famous Voyage	HMS Beagle (1831- 1836) Visited the Galapagos Islands

An Example of Natural Selection: Peppered Moths

1. Light-coloured moths were common.
2. During the Industrial Revolution (1760 – 1840) coal burning covered the moth's habitats in black soot.
3. This gave the dark coloured moths a greater chance of survival because they had better camouflage than the light moths.
4. Many light-coloured moths died as they were easily spotted by their prey.
5. Dark coloured moths became more common
6. As pollution has reduced over time the light coloured moths have now become more common again.

Darwin's Journey on the HMS Beagle