

Year 5 & 6 Knowledge Organiser – Evolution & Inheritance

Survival

What should I already know?

Which things are living and which are not.

Identifying animals (e.g. amphibians, reptiles, birds, fish, mammals, invertebrates) and plants using classification keys

Animals that are carnivores, herbivores and omnivores.

Animals have **offspring** which grow into adults.

The basic needs of animals for **survival** (water, food, air)

Some animals have skeletons for support, protection and movement.

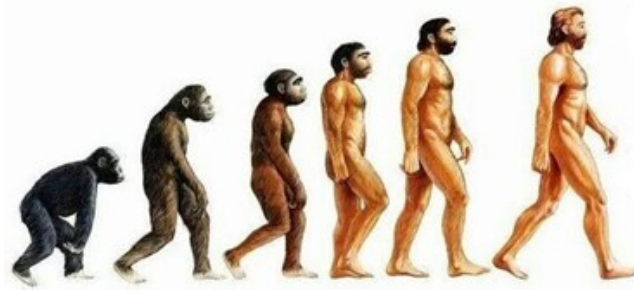
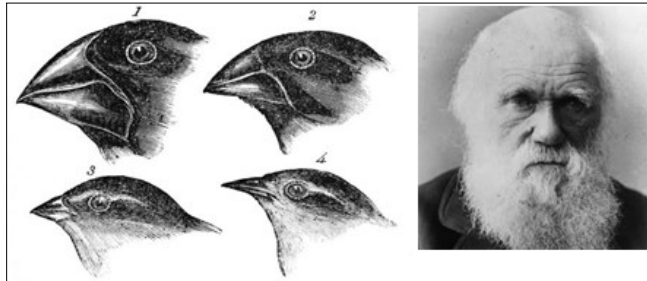
Food chains, food webs and the role of predators and prey.

Key vocabulary

adaptation	a change in structure or function that improves the chance of survival for an animal or plant within a given environment
characteristics	the qualities or features that belong to them and make them recognisable
evolution	a process of change that takes place over many generations , during which species of animals, plants, or insects slowly change some of their physical characteristics
species	a class of plants or animals whose members have the same main characteristics and are able to breed with each other
mutation	characteristics that are not inherited from the parents or ancestors and appear as new characteristics .
inherit	If you inherit a characteristic you are born with it, because your parents or ancestors also had it.
natural selection	a process by which species of animals and plants that are best adapted to their environment survive and reproduce , while those that are less well adapted die out

Diagrams

Charles Darwin, an evolutionary scientist, studied different animal and plant **species**, which allowed him to see how **adaptations** could come about. His work on the finches was some of his most famous.



What will I know by the end of the unit?

Environment – Evolution and Inheritance

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.

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.



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Key vocabulary

extinct	no longer has any living members, either in the world or in a particular place
ancestor	an early type of animal or plant from which a later, usually dissimilar, type has evolved
extinct	no longer has any living members, either in the world or in a particular place
offspring	a person's children or an animal's young
reproduction	when an animal or plant produces one or more individuals similar to itself
variation	a change or slight difference
biodiversity	a wide variety of plant and animal species living in their natural environment
maladaptation	the failure to adapt properly to a new situation or environment
traits	A distinguishing characteristic or quality

Diagrams

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.

Variation

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



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.

Topic-Survival Evolution & Inheritance

Question 1. A gradual change that takes place over many generations is called:	Start of unit	End of unit	Question 5. When we have the same characteristic as our parents or ancestors, we _____ that characteristic.	Start of unit	End of unit
A. inheritance			A. have inherited		
B. mutations			B. have mutated to get		
C. evolution			C. have adapted to		
D. reproduction			D. have maladapted to		
Question 2. Evolution occurs when there is competition to survive. This is called...	Start of unit	End of unit	Question 6. The dodo was unable to adapt to its environment to survive. This means that the dodo is now...	Start of unit	End of unit
A. reproduction			A. extinct		
B. natural selection			B. endangered		
C. variation			C. alive		
D. biodiverse			D. flying		
Question 3. Evidence of evolution comes from...(tick two)	Start of unit	End of unit	Question 7 Charles Darwin...	Start of unit	End of unit
A. fossils			A. found the first fossil		
B. living things			B. was made famous by his theory of evolution		
C. museums			C. found remains of the dodo		
D. food chains			D. Don't know		