St John's Primary School: Science knowledge organisers

Year group: Year 6 Science focus: Evolution



Key knowledge:

| Evolution | | | |
|-----------|---|--|--|
| Do things | Living things used to look different in | | |
| evolve? | comparison to how they look now | | |
| | Fossils have been found that prove | | |
| | this and they show us that living | | |
| | things change over time | | |
| How do | Charles Darwin observed that | | |
| things | although individuals in a species | | |
| evolve? | shared similarities, they were not | | |
| | exact copies of each other | | |
| | He noticed that everything in the | | |
| | natural world was in competition | | |
| | and the winners were those that had | | |
| | characteristics which made them | | |
| | better adapted for survival e.g. | | |
| | stronger, faster, cleverer | | |
| | These living things were more likely | | |
| | to reproduce and pass on their | | |
| | useful characteristics to their | | |
| | offspring | | |
| | Individuals that were poorly adapted | | |
| | were less likely to survive and their | | |
| | characteristics were not as likely to | | |
| | be inherited | | |

Variation

Living things produce offspring but they are not identical to their parents

Natural variation like this can lead to offspring being more likely or less likely to survive in their environment

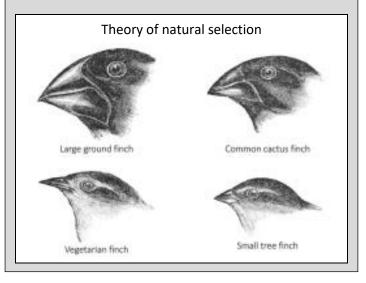
If the variant makes them more likely to survive, they are more likely to be alive to pass this variant onto their offspring and the variant will become more common in this species

| Examples of adaptation | | |
|------------------------|--|--|
| Adaptations for cold | Arctic foxes adapt to winter by | |
| environments | growing a thicker, white coat that better insulates them and serves as | |
| | camouflage. | |
| Adaptations | Kangaroo rats dig themselves | |
| for hot | underground homes. This keeps | |
| environments | them out of the sun. | |

Key vocabulary:

| A characteristic of a living thing that | |
|---|--|
| makes it suited to its environment | |
| The process by which living things | |
| gradually change over time | |
| The naturally preserved remains of | |
| traces of animals or plants that lived in | |
| the past | |
| Seasonal movement of animals from | |
| one location to another | |
| Children or young | |
| To produce again/ give birth | |
| A group of organisms that have | |
| common characteristics and can breed | |
| Small differences | |
| | |

Diagrams:



Possible experiences:

Investigate the work of palaeontologists such as Mary Anning

Investigate how Charles Darwin and Alfred Wallace developed their ideas of evolution

Identify examples of how animals have adapted to their environments

Key concepts:

| Investigating | Recognising | |
|---------------|-------------|--|
| Researching | Identifying | |