

Biology

Strand: Evolution & Inheritance

Working Scientifically Drives All of the Knowledge & Understanding

NC Objectives	Key Scientific Knowledge	Key Vocabulary	Working Scientifically
Year 6			
<p>To recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</p>	<p><i>Revise and make links to Yr 3 – how are fossils formed. Make explicit the importance of fossils as evidence of previous living organisms.</i></p> <p>To be able to describe how fossils provide scientific evidence of living things from millions of years ago and how living things have changed over time</p> <p>To understand that some fossils in layers/bands of rock provide evidence of the existence of creatures which are now extinct</p>	<p>Fossil, evidence, inhabit, Species, extinct, extinction, organism</p>	<p>Explore fossils and look for evidence of similarities/ differences in living things.</p> <p>Research work on Mary Anning (English palaeontologist/ fossil research who provided evidence for the occurrence of species' extinction)= <i>identifying scientific evidence that has been used to support or refute ideas or arguments.</i></p> <p>STEM: Evidence of Evolution pack (hominid skulls)</p> <p>Research current discoveries of fossils in the news and their importance to the scientific community/ the world.</p>
<p>To recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p>	<p>To be able to describe the process of inheritance: the passing on of features from parents to offspring e.g. eye colour, nose shape</p>	<p>Offspring, species, identical, vary, variation, features, inherit, inheritance</p>	<p>Explore breeds of dogs/ crossing e.g. Labrador/ poodles.</p> <p>Which features have been inherited from the parents?</p>

	To be able to describe what species means e.g. group of similar individuals capable of reproducing, creating healthy offspring.		Explore and discuss which features might be beneficial/ disadvantageous to inherit from parents. Raise questions and observe/ research which human/ animal features are inherited (link to genes)?
To identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution	<p>To be able to describe in simple terms what evolution is: the process by which living things gradually change over time (due to mutation)</p> <p>To understand that adaptation e.g. thicker fur/ streamlined body, can lead to evolution (natural selection), whereby organisms better adapted to the environment have better rates of survival</p> <p>To identify that variation in offspring over time can lead to adaptation to environments e.g. giraffe/longer neck; polar bear- thickening of fur; camouflage.</p> <p>To be able to give some examples from nature (see above) of animal adaptation to their environments e.g. camouflage.</p>	<p>Adaptation, adapt, environment, evolution, (mutation), organisms</p> <p>Natural selection, survival, Extinct, extinction</p> <p>Variation, vary, offspring,</p>	<p>Research the work of Charles Darwin (ARKive Collection) focussing on evolution and how his work provided evidence which refuted ideas and common beliefs at the time.</p> <p>Research/ observe and present findings orally to show how organisms have adapted to their environments over time.</p> <p>Explore and test beak shape as adaptations for eating specific foods (see STEM).</p> <p>Design a species activity (give children specific issues which the environment provides e.g. hot climate, eats insects, many natural predators)</p>