

Knowledge planner : *building a rich web of powerful knowledge*

Year 6 Why is the natural world the way it is? How did we come to be as we are?

Prior learning- establishing what was key/relevant prior learning (sticking new knowledge to old knowledge) , assessing any gaps so we can plug these in current work.

Previous years science:

Year 3:

- identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- identify that humans and some other animals have skeletons and muscles for support, protection and movement
describe in simple terms how fossils are formed when things that have lived are trapped within rock

Year 4:

- describe the simple functions of the basic parts of the digestive system in humans
- recognise that living things can be grouped in a variety of ways
- explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- recognise that environments can change and that this can sometimes pose dangers to living things.

Year 5:

- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- describe the life process of reproduction in some plants and animals.

National Curriculum links

- describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals (Y6)
- give reasons for classifying plants and animals based on specific characteristics. (Y6)
- identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood (Y6)
- recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function (Y6)
- describe the ways in which nutrients and water are transported within animals, including humans. (Y6)
- recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago (Y6)
- recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents (Y6)
- identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. (Y6)

<p>Big ideas/concepts</p> <p>Many societies and cultures have sought to explain how humans came to exist.</p> <p>Scientific evidence has been used to support or refute ideas; evidence is used to back up theories, new evidence appears over time and theories change.</p> <p>Animals and plants are adapted to suit their environment in different ways and adaptations may lead to evolution (the gradual changing of the features of species over time).</p> <p>How the different systems of the human body interact.</p>	<p>Key question/s:</p> <p>Why is there so much variety of life on Earth?</p> <p>How did humans come to evolve?</p> <p>Why are organisms so well adapted to their environments?</p> <p>Why were people slow to accept the theory of evolution?</p> <p>What do fossils show us?</p> <p>What is the circulatory system?</p>	<p>Vocabulary (including etymology?)</p> <p>Evolution Adaptation Theory Hypothesis Paradigm shift Offspring Genes Mutation Classification Genetics Circulatory system Veins Arteries</p>
<p>Plans - content, how will we teach this?</p> <p>Heart dissections. Fossil exhibition at We The Curious.</p>	<p>Other curriculum areas with rich links to concepts or content?</p> <p>RE- creation stories. Eugenics - WW2. Text - Extinction Trials</p>	<p>Important figures/quotes- the best that has been thought/said/done</p> <p>Charles Darwin Carl Linnaeus David Attenborough</p>