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| **Science Year 3 Medium Term Planning – ADVENT 2: Animals including human and Revisit Rocks** | | | | | | | | | | | | | |
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| **National Curriculum**  **Animals, including humans:**   * 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   **Rocks:**   * compare and group together different kinds of rocks on the basis of their appearance and simple physical properties * describe in simple terms how fossils are formed when things that have lived are trapped within rock * recognise that soils are made from rocks and organic matter | | | | | | | | | | | | | |
| **Prior vocabulary knowledge**  Animals including humans:vertebrates, invertebrates flexible muscles, heart absorb  Rocks: materials properties physical | | | | | | | | | | | | | |
|  | | Lesson 1 | | Lesson 2 | | Lesson 3 | | Lesson 4 | | Lesson 5 | | Lesson 6 | |
| **Learning intention** | | What effect does the food we eat have? | | What is my skeleton and what does it do? | | Where are my muscles and what do they do? | | How are rocks formed and what types are there? | | Remember: how can rocks change? | | Remember: how are fossils formed and how do we know? | |
| **Working Scientifically** | | Researching from secondary sources. | | Setting up simple practical enquiries, comparative and fair tests.  Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. | | Asking questions and using different types of scientific enquiries to answer them. | | Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.  Researching from secondary sources. | |  | |  | |
| **Recall and retrieval** | | CQ: 1-6 | | CQ: 7-15 | | CQ: 16-22 | | CQ: 1-8 | | CQ: 9-16 | | CQ: 17-19 | |
| **Sequence of knowledge throughout the lesson** | | **Key Knowledge**  To know we are humans.  To know that humans eat plants and sometimes meat.  To know the food pyramid contains food we eat.  To know we should eat more of the bottom layers of the pyramid.  To know the importance of water to humans.  To know that blood, muscles and organs need water to work.  To know that vitamins, minerals and fibre are found in vegetables and fruit and keep us healthy.  To know that carbohydrates give us energy and are in bread, cereals, vegetables and sugar.  To know that protein helps us grow and foods that contain protein.  To know types of fat, that fats give energy, help nerves, the brain and the absorption of vitamins. Know that humans should eat less fat than other food groups. | | **Key knowledge**  To know the definition of vertebrate and invertebrate.  To know the functions of a skeleton are:  To support the body.  protect the heart and lungs.  To know that bones are alive and contain bone marrow.  To know that bone marrow makes 2m red blood cells every second. | | **Key knowledge**  To know what muscles are.  To know what voluntary and involuntary movement is in relation to muscles.  To know the 3 types of muscle.  To know how smooth muscles are involuntary muscles and they push food through the body to the intestines and bladder.  To know what biceps and triceps are and how they work. | | **Key knowledge**  To know how rocks are formed and examples of different types of rock.  To know how rocks have been changed. | | **Key knowledge**  Retrieval:  How igneous and sedimentary rocks change into metamorphic rock.  To know how mudstone and limestone are formed. | | **Key knowledge**  To know what fossils are and how they are formed.  To know different types of fossils.  To observe, draw and describe different fossils. | |
| **Scaffolding** | | To label the different food groups and match each food group to how it supports the functions of the body. | | Match pictures to functions of the skeleton.  Simple sentence using knowledge notes to describe the functions of bone marrow. | | To match word and meaning for voluntary and involuntary.  To give an example of involuntary and voluntary muscles.  Complete stem sentences to explain why the heart is an involuntary muscle. | | Match selection of rocks to their names. | | Simple explanation of different rock formations using a word mat. | | Simple sentences to describe each stage of fossil formation.Draw and label a fossil. | |
| **Challenge** | | Give examples of each food group and explain why each food group is important to the healthy functioning of the body. | | Explain functions of the skeleton and bone/bone marrow. | | To give more examples of involuntary and voluntary muscles and explain how humans control voluntary muscles. | | Match different rocks to their names and give examples of each. | | More detailed explanation with examples of the different types of rock formation and examples of each. | | Write a detailed description of the stages of fossil formation.  Draw, label and give detailed description of a fossil. | |
| **Tier 2 vocabulary** | | minerals | | skeleton  skull | | voluntary  involuntary  triceps  biceps  nerves | | cemented  compacted  soil  transform  decay | | cemented  compacted  soil  transform  decay | | prehistoric  transform | |
| **Tier 3 vocabulary** | | vitamins  proteins  carbohydrates | | vertebrate | |  | | igneous  magna  sedimentary  metamorphic | | minerals  igneous  magna  sedimentary  metamorphic | | fossil | |