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| **Science Unit Four:**What’s inside?    **Coombe and Gribben Autumn 2021**  |
| **What should I already know?**  Rocks, soils especially sand, rocks and beach properties and their make up. How the sea and rivers break down large rocks and minerals into smaller pieces (sand).   The names of flowers, trees and common plants in the UK. The basic parts of these plants (e.g. leaf, stem, branch, flower, stamen, anther).   Water cycle and food chains.   Identify and name the features of omnivores, carnivores, herbivores, mammals, birds, amphibians, fish and reptiles.   Evaporating salt water to separate solids from liquids- identifying the role of the sun in this process.  States of Matter- solids, liquids and gases | **Skeletons and Muscles**  C:\Users\ksicolo\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\FB6C78.tmpVertebrates are animals that have a backbone. These skeletons are called endoskeletons - this means that the skeletons are on the inside of the bodies. These  skeletons grow with the bodies. When the skeleton exists outside the body, it is called an exoskeleton. An exoskeleton is a covering that supports and protects animals. These have to be shed and a new skeleton is grown.  The three most important things a skeleton does are: 1. provide support and shape to an animal’s body
2. allow movement through the joints
3. protect organs (e.g. the skull protects the brain)

 Joints are where bones meet - they allow our bodies to move. Muscles contract and relax.  If you place an elbow on a desk and lift your arm up, muscles in your upper arm (biceps) contract while C:\Users\ksicolo\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\834F2146.tmpmuscles behind the upper arm (triceps) relax. The muscles work together and in opposition to allow your arm to move. Muscles are connected to bones by tendons.  |
| **Key Vocabulary**  |
| **Key Term**  | **Definition**  |
| photosynthesis  | the process by which green plans use sunlight to turn carbon dioxide and water into complex substances, giving off oxygen  |
| glucose  | A form of sugar found in fruit juice and honey  |
| starch  | a white carbohydrate found in bread, potatoes and some other foods  |
| incisors  | the sharp edged front teeth in the upper and lower jaws  |
| canines  | pointed tooth at the front of the mouth  |
| molars/ premolars  | the wide teeth at the back of the jow, used for chewing  |
| skeleton  | the framework of a person or animal’s body  |
| muscle  | a band or bundle of fibrous tissue that can contract and relax and so produce movement in parts of the body  |
| solid  | keeping its shape, not liquid or gas  |
| liquid | A substance like water or oil that flows freely but (unlike a gas) has a constant volume  |
| **Rocks and Soils**  There are three types of rocks that are formed naturally.  **Igneous:** When molten magma cools, igneous rocks are formed. This either cools and forms rocks under the earth’s surface, or flows out of erupting volcanoes as lava and may mix with other minerals. Examples include granite and basalt. This type of rock is strong, hardwearing and non-porous. **Sedimentary:** Sometimes, little pieces of rocks that have been weathered can be found at the bottom of lakes, seas and rivers This is called sediment. Over millions of years, layers of this sediment builds up forming sedimentary rocks. Examples include limestone and chalk. Sedimentary rocks are porous and can easily be worn down.  **Metamorphic:** When some igneous and sedimentary rocks are heated and squeezed (pressured), they form metamorphic rocks. Examples include slate and marble. Metamorphic rocks are strong.   Bricks and concrete are not rocks because they are man-made.  |
| gas | A substance that can move freely and is not a liquid or solid at ordinary temperatures  |
| fossil | the remains or traces of a prehistoric animal or plant that he been buried in the ground for a long time and become hardened in rock |
| tendon | A strong strip of tissue that joins muscle to bone |
| state of matter | a state of matter is one of the distinct forms in which matter can exist. The three basic, naturally occurring states are solid, liquid and gas.  |
| evaporation | the process of changing from liquid into steam or vapour |
| condensation | the process of changing from gas or vapour to liquid |
| **Fossils**  Fossils are the remains of prehistoric life.  They are usually formed when a living thing (plant or animal) dies and the body is covered up or buried by sediment over tens of thousands of years.  Some fossils are formed when the tough bones and teeth in animals, and the woody part of plants are preserved.  Other fossils are made from imprints in surrounding sedimentary rock such as footprints or imprints from shells.  Fossils tell us about the Earth and about life that existed hundreds of thousands and millions of years ago.  **Soil**  Soil is made from pieces of rock, minerals, decaying plants and water.  When rock is broken down into small grains, soil is formed.  |
| **Key Experiences**  Keep a wormery using different soil types  Dissect a chicken wing- how do the muscles, bones and tendons work together to create movement? How does this differ from a human arm?  |