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| **Science**  **Core Curriculum Coverage Year B**  **Class 3** | | | |
|  | **Autumn Term** | **Spring term** | **Summer Term** |
| **Unit of work** | **Rocks**  **Light** | **Animals including humans**  **Plants – focus on plants and their needs and how they work.** | **States of matter**  **Electricity** |
| **Prior Learning** | There is no previous connection to this topic in the curriculum as this is new learning. Check prior knowledge, | Chn have explored the basic body parts in year 1, the human skeleton and muscles in year 3 and will have some understanding of food chains from year 2.  In Y1 chn worked to identify/ name common plants, building on this in Y2 as they observe and describe how seeds and bulbs grow into mature plants | Chn have explored the basic body parts in year 1, the human skeleton and muscles in year 3 and will have some understanding of food chains from year 2.  There is no earlier connection within the curriculum for this topic. Check children’s prior learning. |
| **Core Learning**  **Knowledge** | * Name and classify common rocks compare and group together different kinds of rocks on the basis of their simple physical properties * Recognise that soils are made from rocks and organic matter a describe in simple terms how rocks are formed * Describe in simple terms how fossils are formed when things that have lived are trapped within rock * Recognise that they need light in order to see things and that dark is the absence of light * Notice that light is reflected from surfaces * Recognise that shadows are formed when a light source is blocked by a solid object * Find patterns in the way that the size of shadows change * Recognise that light from the Sun can be dangerous and that there are ways to protect our eyes | * Name and label the simple functions of the digestive system in humans * Describe the simple functions of the basic parts of the digestive system in humans * Identify the different types of teeth in humans and their simple functions * Construct and interpret a variety of food chains, identifying producers, predators and prey * Identify and describe the functions of different parts of flowering plants: roots, stem/trunk leaves and flowers * Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant * Investigate the way in which water is transported within plants * Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. | * Compare and group materials together, according to whether they are solids, liquids or gases * Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) * Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature * Identify common appliances that run on electricity. Pupils should be taught about precautions for working safely with electricity. * Construct a simple series electrical circuit identifying and naming the basic parts of a simple electrical circuit, including cells, wires, bulbs, switches and buzzers * Identify whether or not a lamp will light in a simple series circuit based on whether or not the lamp is part of a complete loop with a battery * Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit * Recognise some common conductors and insulators, and associate metals with being good conductors |
| **Core Learning**  **Skills** |  |  |  |
| **Vocabulary** | Permeable/ impermeable core rock mineral crystal igneous magma sediment/sedimentary humus  dull shiny reflect light source kaleidoscope beam recap: opaque, translucent, shadow, transparent, mirror | Molar canine premolar incisor enamel glands enzymes digestion large and small intestine stomach oesophagus recap: digestion, decay, nutrients, herbivore, omnivore, carniovre.  Root,stem,flower,leaves Growth Nutrients Survival Germination pollination Seed dispersal Seed formation | Solid liquid gas matter Evaporation condensing melting point/freezing point recap: melting, freezing, temperature, thermometer  Rechargeable circuit components terminal conductor insulator circuit components including: cell, battery, wire, bulb, ammeter, motor, buzzer, switch |
| **Personal Development** |  |  |  |
| **End of Unit Application Task** | Name the 3 types of rock?  Select one type of rock and give a description of how it is made.  Brick is not a natural rock, what type of rock is it?  Sandstone, marble and granite are 3 examples of natural rocks. What type does each rock match up to?  What are pulhamite and coade stone examples of?  Look at the images in the table below, what properties of some rocks do the pictures show? Mary Anning was an expert fossil hunter, what is the correct word for her job studying fossils?  What is the only type of rock where you can find fossils?  What are the 3 different types of fossils?  Soil is made of 4 different things. Can you name at least 2 of these?  Can you describe the process of how soil is formed?  Name three things that are a light source Is the moon a light source? Explain your answer.  Light travels in a \_\_\_\_\_\_\_\_\_ line from a \_\_\_\_\_\_\_\_\_\_ source to an object.  What happens to the pupil in your eye if a room gets darker?  What happens if you shine a torch on a shiny surface?  Why do you think road signs are made out of reflective material?  Write true or false for the following statements (give table)  Name two dangers of light from the sun. Why should you never look directly at the sun or a bright light?  Explain how a shadow is made  How do you make a shadow bigger? | Look at the diagram of the human body. Select at least 6 parts of the digestive system to label.  What is the job the oesophagus?  What is the job the of large intestine?  In the stomach, along with other parts of the body, you will find glands and enzymes.  What do glands do? What to enzymes do?  What do the arrows in the foodchain represent? What is the first item in a food chain called?  What do the words a. herbivore b. omnivore c. carnivore mean?  Look at the food chain, who is the tertiary consumer?  How many incisor do humans have and what is their function?  What is the function of the different teeth types?  What is the name of the white outside part of the tooth?  1. Look at the diagram, label the parts of the plant.  2. What job do the petals do?  3. What is the function of the stem?  4. Do you think a plant could survive if its roots were damaged? Can you explain why?  5. Where are the food and nutrients made in this plant?  6. What is process of making food in a green plant called?  7. Mrs Gren helps us remember what all living things do, name at least three of these things?  8. Name two ways that seeds can be dispersed.  9. What is germination?  10. Name two things that a plant needs to grow. | Sort these items into solids, liquids or gases.  Draw what particles in a solid look like and write a sentence to explain.  Draw what particles in a gas look like and write a sentence to explain.  Draw what particles in a liquid look like and write a sentence to explain.  Write true or false for these statements: (picture)  Joseph Priestley invented fizzy drinks by using a gas he called ‘heavy air’. What is the name for this gas now?  Match the material to its melting point.  Label the process happening in the box below (water cycle)  What is the scientific name for rain/snow/sleet/water that falls from clouds?  What does it mean to ‘conduct’ electricity?  What is the name for a material that does not conduct electricity?  What is the name for a material that does conduct electricity? Can you give an example?  Name a ways that we see electricity occurring naturally.  Tick whether or not the bulb will light up in each of these images.  Name two household items that are powered by mains electricity  Name two household items that are powered by battery electricity  Name two ways of making electricity from a renewable source  Names these pieces of equipment that you would use when constructing a circuit  Can you explain how a switch works? |