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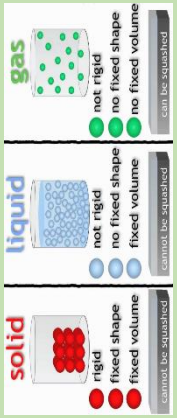
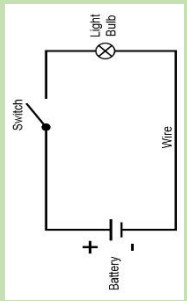
Term	Theme	Sub questions	Subject Specific Vocabulary	Linked Visits in / Visits out/Experiences/Stories	Assessment
Autumn Term A 	**States of Matter** Solids, Liquids and Gases	**What happens to liquids when it is heated/cooled?** **Where do the drops of water come from?** **What might affect the size of the drops of water?** **The drops of water will not go on forming forever – why?** **Can you think of other examples of evaporating?** **What do you think would make a liquid evaporate more quickly?** **What is the process called when a gas turns to a liquid? What is the process called when a liquid turns into a gas?** Know solids, liquids and gases are described by observable properties. Know materials can be divided into solids, liquids and gases. Know particles in solids are fixed. Know particles in liquids are fluid and move around together. Know particles in gases float about freely. Know when liquid evaporates it turns into water vapour. Know the water cycle involves areas of water being heated by the sun and turns to water vapour. This then rises and cools down, changing it to water droplets in clouds (condensation). When the droplets get too heavy they fall back to earth as rain, sleet or snow (precipitation).	solid liquid conclude change of State gas liquid predict particles melt freeze properties water ice temperature process condensation evaporation water vapour energy precipitation collection	Practical Experiments	Assessment will be based on a formative approach of children being able to answer the key questions using the knowledge acquired over the half term through a quiz-based approach.
Autumn Term B 	**Electricity** Simple Circuits	**What would life be like without electricity?** **What sorts of things use/need electricity?** **What electricity do we use?** **In which ways can we get electricity? (mains/plugs/ batteries/wireless)** **How do we make electricity?** **How do batteries work?** **How quickly can batteries run out? Does this make a difference depending on number of components?** **How does the number of batteries added to the circuit affect a device?** **What materials can carry electricity? (conductors/insulators)**	circuits electricity circuit improve bulb cell crocodile clips electric current battery cell switch insulator conductor component	Making a torch using a simple circuit / Linked to DT Torches Project (Kapow)	

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		Know a source of electricity (mains or battery) is needed for electrical devices to work. Know electricity sources push electricity round a circuit. Know more batteries will push the electricity round the circuit faster. Know devices work harder when more electricity goes through them. Know a complete circuit is needed for electricity to flow and devices to work. Know some materials allow electricity to flow easily and these are called conductors. I know materials that don't allow electricity to easily through are called insulators.	battery holder mains appliances		
Spring Term A **Spring Term B** 	**Living things and their habitats**	**What is food chain?** **What are the different relationships within food chains?** **What food chains and webs are in our local habitat?** **How does energy move through the food chain?** **How does removal of one species from an environment affect others?** **How does human activity affect our environment?** **How can we group living things?** **What is a classification key?** **How do they help us group, identify and name living things?** **What are vertebrates and invertebrates?** Know a food chain consists of producers and consumers. Know predators hunt prey. Know that there is a specific order of consumers: Primary, Secondary, Tertiary, Quadatory. Know decomposers are bacteria that breaks down dead plants and animals into liquid for food. Know detritivores are animals that eat decomposing plants and animals. Know vertebrates have a spine / backbone and invertebrates do not. Know how a classification tree can help sort different species. Know how to interpret and create a classification tree. Know that if one species is removed from a food chain it can have a negative impact on how the food chain works and the habitat it is found.	classification pollution human impact vertebrates invertebrates environment carnivores omnivores herbivores amphibians reptiles	Habitats in and around the Dearne valley School Pond / Summer house Building a den/habitat	

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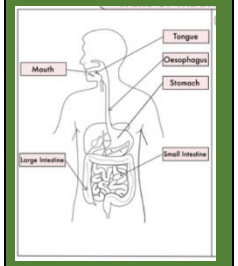
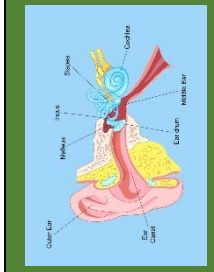
Summer Term A 	**Animals including humans**	**Do all organisms eat the same food?** **What is our digestive system?** **Why do we need a variety of foods?** **What happens to our food?** **Why do some people need different diets? (Weightlifter vs Marathon runner)** **How does our food turn into urine and excrement?** Know different organisms have different diets. Know the digestive system is made up of the mouth, the tongue, the oesophagus, stomach, large intestine and small intestine. Know the mouth is where food is chewed by the teeth. Know the tongue rolls the food into a ball to be swallowed. Know food is swallowed in the oesophagus and passes to the stomach. I know food is digested in the stomach. Know the small intestine is where food continues to be digested and also absorbed into the bloodstream. Know that the large intestine is where water moves back into the blood and faeces are formed. Know what nutrition is needed for animals and humans to be healthy.	nutrition digestive system tongue mouth oesophagus muscles intestine gall bladder pancreas		
Summer Term B 	**Sound**	**How does sound travel from a source to our ears?** **What happens during this process?** **How can you change the volume of a sound?** **How does the strength of vibrations relate to the volume of the sound?** **How does the type of material affect how well it blocks the sound?** **What is the correlation between pitch and the object producing the sound?** Know sound travels from its source in all directions and we hear it when it travels to our ears. Know sound can be blocked. Know sound spreads out as it travels. Know the change in size, shape, and material of an object will change the sound it produces.	vibration sound wave frequency pitch auditory amplitude high low loud quiet	Sound Survey around the school and grounds	

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		Know sound is produced when an object vibrates. Know sound moves through all materials by making them vibrate. Know changing the way an object vibrates changes its sound. Know bigger vibrations produce louder sounds and smaller vibrations produce quieter sounds. Know faster vibrations (higher frequencies) produced higher pitched sounds.			