

APS CURRICULUM	SCIENCE	YEAR 3/4	YEARLY OVERVIEW – YEAR A		
Knowledge, Skills and understanding breakdown					
National Curriculum Links	States of Matter Autumn Term	Electricity Autumn Term	Living Things Spring Term	Sound Summer Term	Animals incl. Humans Summer Term
Living things and their habitats Pupils should be taught to: • 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.	• Can they compare and group materials based on their states of matter, ie, liquid, solid or gas? • Can they explain what happens to materials when they are heated or cooled? • Can they measure the temperature at which different materials change state? • Can they use measurements to explain changes to the state of water? • Can they explain the part that evaporation and condensation has in the water cycle?	• Can they explain how electricity is useful to us? • Can they construct a simple circuit? • Can they explain what a conductor is and test materials for conductivity? • Can they explain closed and open circuits? • Can they construct a circuit with a switch? • Can they recognise some common conductors and insulators?	• Can they use a classification key to group a variety of living things? (plants, vertebrates, invertebrates) • Can they compare the classification of common plants and animals to living things found in other places? (under the sea, prehistoric) • Can they name and group a variety of living things based on feeding patterns? (producer, consumer, predator, prey, herbivore, carnivore, omnivore) • Do they recognise that environments can change and this can sometimes pose a danger to living things?	• Can they describe a range of sounds and explain how they are made? • Can they compare sources of sound and explain how the sounds differ? • Can they explain how to change a sound (louder/softer)? • Can they describe and explain how a sound travels from a source to our ears? • Can they explain what happens to sound as it travels away from its source? • Can they explain how you could change the pitch of a sound? • Can they investigate how different materials can affect the pitch and volume of sounds?	• Can they identify and name the basic parts of the human digestive system? • Can they describe the function of the organs of the human digestive system? • Can they identify the simple function of different types of human teeth? • Can they compare the teeth of herbivores and carnivores? • Can they explain what a simple food chain shows?
Animals, including humans Pupils should be taught to: • 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.					
States of matter Pupils should be taught to:					

	More Challenging				
	States of Matter	Electricity	Living Things	Sound	Animals incl. Humans
- 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. Sound Pupils should be taught to: - Identify how sounds are made, associating some of them with something vibrating - Recognise that vibrations from sounds travel through a medium to the ear - Find patterns between the pitch of a sound and features of the object that produced it - Find patterns between the volume of a sound and the strength of the vibrations that produced it - Recognise that sounds get fainter as the distance from the sound source increases.	- Can they group and classify a variety of materials according to the impact of temperature on them? - Can they explain what happens over time to materials such as puddles on the playground or washing hanging on a line? - Can they relate temperature to change of state of materials?	- Can they explain how a bulb might get dimmer? - Can they recognise if all metals are conductors of electricity? - Can they work out which metals can be used to connect across a gap in a circuit?	- Can they give reasons for how they have classified animals and plants, using their characteristics and how they are suited to their environment? - Can they explore the work of pioneers in classification? (e.g. Carl Linnaeus)	- Can they explain why sound gets fainter or louder according to the distance? - Can they explain how pitch and volume can be changed in a variety of ways? - Can they work out which materials give the best insulation for sound?	- Can they classify living things and non-living things by a number of characteristics that they have thought of? - Can they explain how people, weather and the environment can affect living things? - Can they explain how certain living things depend on one another to survive?

Electricity Pupils should be taught to: • Identify common appliances that run on electricity • Construct a simple series electrical circuit, identifying and naming its basic parts, 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.					
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