

APS CURRICULUM	SCIENCE	YEAR 3/4	YEARLY OVERVIEW – YEAR B		
Knowledge, Skills and understanding breakdown					
National Curriculum Links	Rocks and Materials Autumn Term	Light Autumn Term	Animals incl. Humans Spring Term	Forces and Magnets Summer Term	Plants Summer Term
Plants Pupils should be taught to: - 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 part that flowers play in the life cycle Animals, including humans Pupils should be taught to: - 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	- Can they compare and group together different rocks based on their simple physical properties? - Can they describe and explain how different rocks can be useful to us? - Can they describe and explain the differences between sedimentary and igneous rocks, considering the way they are formed? - Can they describe how fossils are formed within sedimentary rock? (Non-Statutory) Materials - Can they sort the same group of materials in different ways? - Can they sort materials by a	- Can they explain the difference between transparent, translucent and opaque? - Can they compare the brightness and colour of lights? - Can they explain how bulbs work in an electrical circuit? - Can they explain how shadows are formed?	- Can they explain the importance of a nutritious balanced diet? - Can they describe how nutrients, water and oxygen are transported within animals and humans? - Can they describe and explain the skeletal system of a human? - Can they describe and explain the muscular system of a human?	- Can they observe that magnetic forces can be transmitted without direct contact? - Can they talk about how some magnets attract or repel each other? - Can they classify which materials are attracted to magnets? - Can they describe the speed and direction of moving objects? - Can they set up a test to explore whether or not materials are attracted to magnets?	- Can they identify and describe the functions of different parts of plants? (roots, stem, leaves and flowers) - Can they identify what a plants needs for life and growth? - Can they describe the ways in which nutrients, water and oxygen are transported within plants? - Can they explain how the needs and functions of plant parts vary from plant to plant e.g. insect and wind pollinated plants? - Can they investigate the way in which water is transported within plants?

- Identify that humans and some other animals have skeletons and muscles for support, protection and movement Rocks Pupils should be taught to: - 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. Light Pupils should be taught to: - 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 light from the sun can be dangerous and that there are ways to protect their eyes - Recognise that shadows are formed when the light from a light source is blocked by a solid object	number of different criteria? - Can they suggest materials which could be used for specific jobs? - Can they set up a simple test to explore the differences between materials? - Can they set up a test to explore whether or not a material will float or sink? - Can they compare the properties of materials in different situations e.g. floating in salty water, magnetism in water? - Can they describe what it means to reverse a change? - Can they describe which changes can and cannot be reversed?				
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- Find patterns in the way that the size of shadows change. Forces and magnets Pupils should be taught to: - Compare how things move on different surfaces - Notice that some forces need contact between two objects, but magnetic forces can act at a distance - Observe how magnets attract or repel each other and attract some materials and not others - Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials - Describe magnets as having two poles - Predict whether two magnets will attract or repel each other, depending on which poles are facing.	More Challenging				
	Rocks and Materials	Light	Animals incl. Humans	Forces and Magnets	Plants
	- Can they classify igneous and sedimentary rocks? - Can they begin to relate the properties of rocks with their uses? - Can they explain different ways that they can sort the same group of materials? - Can they sort materials by a number of different criteria and explain their reasons? - Can they explain why certain materials are used for specific jobs?	- Can they explain why lights need to be bright or dimmer according to need? - Can they make a bulb go on and off? - Can they say what happens to the electricity when more batteries are added? - Can they explain why their shadow changes when the light source is moved closer or further from the object?	- Can they explain how the muscular and skeletal systems work together to create movement? - 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?	- Can they investigate the strengths of different magnets and find fair ways to compare them? - Can they explain why an object will move faster if it is rolling down a hill or a slope?	- Can they classify a range of common according to many criteria (environment found, size, climate required, etc.)? - Can they explore the role of flowers in the life cycle of flowering plants. Including pollination, seed formation and speed dispersal?