MUNTHAM HOUSE SCHOOL

Science Curriculum Coverage Document

Aims	Cycle 1 20-21	Cycle 2 21-22	Cycle 3- 22-23	Cycle 4 23-24	Cycle 5 24-25	Cycle 6 25-26
The national curriculum for science aims to ensure that all pupils: • develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics	**We're all human/ This is me!** Y1 Animals (including humans) Y2 Animals, Including Humans Y3 Animals, Including Humans Y4 Animals, Including Humans Y5 Animals, Including Humans Y6 Evolution & Inheritance	**Travel Agents** Y1 Everyday Materials Y2 Uses of Everyday Materials Y3 Rocks Y4 Electricity Y5 Earth & Space Y6 Electricity	**Physical World** Y1 Working Scientifically Y2 Working Scientifically Y3 Working Scientifically Y4 Working Scientifically Y5 Working Scientifically Y6 Working Scientifically	**Out of Africa** Y1 Seasonal Changes Y2 Living Things & Their Habitats Y3 Rocks Y4 Living Things & Their Habitats Y5 Living Things & Their Habitats Y6 Living Things & Their Habitats	**Moving Mechanisms (WeDo2)** Y1 Everyday Materials Y2 Uses of Everyday Materials Y3 Magnets & Forces Y4 States of matter Y5 Forces Y6 Electricity	**100 years celebrations** Y1 Animals (including humans) Y2 Animals, Including Humans Y3 Animals, Including Humans Y4 Animals, Including Humans Y5 Animals, Including Humans Y6 Evolution & Inheritance
• develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them	**Worldwide celebrations** Y1 Plants Y2 Plants Y3 Plants Y4 States of matter Y5 Properties & change of materials Y6 Consolidation	**Dinosaurs!** Y1 Plants Y2 Plants Y3 Plants Y4 States of matter Y5 Properties & Changes of Materials Y6 Consolidation	**World events inc. Olympics Earth and space** Y1 Science focus Y2 Science focus Y3 Light Y4 Electricity Y5 Earth and Space Y6 Light	**Light and Dark** Y1 Working Scientifically Y2 Working Scientifically Y3 Light Y4 Electricity Y5 Earth & Space Y6 Light	**Flexible me!** Y1 Science focus Y2 Living Things & Their Habitats Y3 Working Scientifically Y4 Living things & Their habitats Y5 Living things & Their habitats Y6 Living things & Their habitats	**Christmas – Ice worlds** Y1 Science focus Y2 Living Things & Their Habitats Y3 Forces & Magnets Y4 Living Things & Their Habitats Y5 Living Things & Their Habitats Y6 Living Things & Their Habitats
• are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future	**Time Travellers** Y1 Everyday Materials Y2 Uses of Everyday Materials Y3 Light Y4 Electricity Y5 Forces Y6 Light	**Historical figures** Y1 Science focus Y2 Working Scientifically Y3 Working Scientifically Y4 Sound Y5 Living things & Their habitats Y6 Light	**Body Systems** Y1 Animals (including humans) Y2 Animals, Including Humans Y3 Animals, Including Humans Y4 Animals, Including Humans Y5 Animals, Including Humans Y6 Evolution & Inheritance	**Bugs Life** Y1 Animals (including humans) Y2 Animals, Including Humans Y3 Animals, Including Humans Y4 Animals, Including Humans Y5 Animals, Including Humans Y6 Evolution & Inheritance	**Great Inventors Electricity** Y1 Working Scientifically Y2 Working Scientifically Y3 Light Y4 Electricity Y5 Earth & Space Y6 Light	**Lights, Camera, Action!** Y1 Everyday Materials Y2 Uses of Everyday Materials Y3 Light Y4 Electricity Y5 Earth & Space Y6 Light
	Space – To infinity and beyond Y1 Working Scientifically Y2 Working Scientifically Y3 Rocks Y4 Sound Y5 Earth and Space Y6 Electricity	**Young Entrepreneurs** Y1 Working Scientifically Y2 science focus Y3 Light Y4 Working Scientifically Y5 Working Scientifically Y6 Working Scientifically	**Romans** Y1 Plants Y2 Plants Y3 Plants Y4 States of matter Y5 Properties & change of materials Y6 Consolidation	**Local Adventures – Pirates and Smugglers** Y1 Science focus Y2 science focus Y3 Working Scientifically Y4 Working Scientifically Y5 Working Scientifically Y6 Working Scientifically	**Everything Changes** Y1 Plants Y2 Plants Y3 Plants Y4 Working Scientifically Y5 Working Scientifically Y6 Working Scientifically	**Tudor Times** Y1 Working Scientifically Y2 Working Scientifically Y3 Working Scientifically Y4 Working Scientifically Y5 Working Scientifically Y6 Working Scientifically
	Victorians Y1 Seasonal Changes Y2 Living Things & Their Habitats Y3 Forces and magnets Y4 Living things & Their habitats Y5 Living things & Their habitats Y6 Living things & Their habitats	**Red, White and Blue** Y1 Seasonal Changes Y2 Living Things & Their Habitats Y3 Forces & Magnets Y4 Living Things & Their Habitats Y5 Forces Y6 Living Things & Their Habitats	**Feel the Force** Y1 Everyday Materials Y2 Uses of Everyday Materials Y3 Forces & Magnets Y4 Sound Y5 Forces Y6 Electricity	**Crash, Bang, Wollop! Inc Vikings** Y1 Everyday Materials Y2 Uses of Everyday Materials Y3 Forces & Magnets Y4 Sound Y5 Forces Y6 Electricity	**Awesome Egyptians** Y1 Animals (including humans) Y2 Animals, Including Humans Y3 Animals, Including Humans Y4 Animals, Including Humans Y5 Animals, Including Humans Y6 Evolution & Inheritance	**Disney – Heroes and Villains** Y1 Seasonal Changes Y2 Science focus Y3 Rocks Y4 States of matter Y5 Properties & change of materials Y6 Consolidation

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	Commotion in the Ocean **Y1 Science focus** **Y2 Science focus** **Y3 Working Scientifically** **Y4 Working Scientifically** **Y5 Working Scientifically** **Y6 Working Scientifically**	**Life cycles** **Y1 Animals (including humans)** **Y2 Animals, Including Humans** **Y3 Animals, Including Humans** **Y4 Animals, Including Humans** **Y5 Animals, Including Humans** **Y6 Evolution & Inheritance**	**Fire and Ice** **Y1 Seasonal Changes** **Y2 Living Things & Their Habitats** **Y3 Rocks** **Y4 Living Things & Their Habitats** **Y5 Living Things & Their Habitats** **Y6 Living Things & Their Habitats**	**Hunter Gatherer** **Y1 Plants** **Y2 Plants** **Y3 Plants** **Y4 States of matter** **Y5 Properties & change of materials** **Y6 Consolidation**	**Welcome to the Big Top!** **Y1 Seasonal Changes** **Y2 science focus** **Y3 Rocks** **Y4 Sounds** **Y5 Properties & change of materials** **Y6 Consolidation**	**Carnivals!** **Y1 Plants** **Y2 Plants** **Y3 Plants** **Y4 Sounds** **Y5 Forces** **Y6 Electricity**

	Plants	Animals including humans (evolution and inheritance)	Everyday materials (states of matter and rocks)	Seasonal change	Living things and their habitats
Year 1	identify and name a variety of common wild and garden plants, including deciduous and evergreen trees identify and describe the basic structure of a variety of common flowering plants, including trees.	identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals identify and name a variety of common animals that are carnivores, herbivores and omnivores describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	distinguish between an object and the material from which it is made identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock describe the simple physical properties of a variety of everyday materials compare and group together a variety of everyday materials on the basis of their simple physical properties.	observe changes across the four seasons • and describe weather associated with the seasons and how day length varies.	
Year 2	• observe and describe how seeds and bulbs grow into mature plants • find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	• notice that animals, including humans, have offspring which grow into adults • find out about and describe the basic needs of animals, including humans, for survival (water, food and air) • describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	• identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses • find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.		• explore and compare the differences between things that are living, dead, and things that have never been alive • identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other • identify and name a variety of plants and animals in their habitats, including micro-habitats • describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.
Year 3	• 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 of flowering plants, including pollination, seed formation and seed dispersal.	• 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 • identify that humans and some other animals have skeletons and muscles for support, protection and movement.	• 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.		
Year 4		• 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.	• 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.		• 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.
Year 5		• describe the changes as humans develop to old age.	• compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets • know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution		• describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird • describe the life process of reproduction in some plants and animals.

			• use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating • give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • demonstrate that dissolving, mixing and changes of state are reversible changes • explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.		
Year 6		• identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood • recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function • describe the ways in which nutrients and water are transported within animals, including humans.			• describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals • give reasons for classifying plants and animals based on specific characteristics.

	Light	Forces and magnets	Electricity	Sound	Earth and space
Year 1					
Year 2					
Year 3	• 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 • find patterns in the way that the size of shadows change.	• compare how things move on different surfaces • notice that some forces need contact between two objects, but magnetic forces can act at a distance • 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.			
Year 4			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.	• 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.	
Year 5		• explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object • identify the effects of air resistance, water resistance and friction, that act between moving surfaces • recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.			• describe the movement of the Earth, and other planets, relative to the Sun in the solar system • describe the movement of the Moon relative to the Earth • describe the Sun, Earth and Moon as approximately spherical bodies • use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.
Year 6	• recognise that light appears to travel in straight lines • use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye		• associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit • compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches		

	• explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes • use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.		• use recognised symbols when representing a simple circuit in a diagram.		