

National curriculum aims in Science

To ensure that all children:

Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics

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

Science Intent

At Hugglescote, our intent is to ensure that every child is equipped with the scientific skills required to understand the uses and implications of science, today and for the future.

They will receive a broad and balanced Science curriculum which will enable them to be curious and explore their world their word building a wealth of scientific knowledge and skills giving them a better understanding of the world they live in.

They will develop an enthusiasm and enjoyment for science learning and discovery.

Reading

- Researching famous and significant scientists
- Reading through a set of instructions

Well being

- Connecting with peers and building up good relationships through joint investigations
- Using a range of equipment and enquiry skills to actively carry our investigations
- Taking notice of what is happening during experiments
- Learn new skills and develop and refine previously learnt skills in their 'toolkit'
- Following the Hugglescote Way showing kindness and respect when working in small groups.
- Developing resilience and perseverance when investigating

Communication

- Using STEM sentences to explain learning in full sentences – orally and written.
- Demonstrate understanding and ideas with a wide technical vocabulary (new and previously learned vocabulary)
- Working in pairs and small groups collaboratively and safely to conduct investigations and experiments.

Community

- STEM visitors
- Learning about a diverse range of Scientists – past and present/male and female
- The role of a scientist and their contribution to society

Disciplinary knowledge	Key vocabulary
<p>Children will develop their skills through:</p> <ul style="list-style-type: none"> • Comparative and fair testing • Observing over time • Identifying, grouping and classifying • Pattern seeking • Researching using secondary resources 	<p>Key vocabulary for each area of study is available at the end of the document.</p>

EYFS END POINT

ELG: The Natural World

Children at the expected level of development will:

- ♣ explore the natural world around them, making observations and drawing pictures of animals and plants
- ♣ know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class
- ♣ understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

KS1 END POINT

During years 1 and 2, pupils will be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- ♣ asking simple questions and recognising that they can be answered in different ways
- ♣ observing closely, using simple equipment
- ♣ performing simple tests
- ♣ identifying and classifying
- ♣ using their observations and ideas to suggest answers to questions
- ♣ gathering and recording data to help in answering questions.

KS2 END POINT

LKS2

During years 3 and 4, pupils will be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- ♣ asking relevant questions and using different types of scientific enquiries to answer them
- ♣ setting up simple practical enquiries, comparative and fair tests
- ♣ making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- ♣ gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- ♣ recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- ♣ reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- ♣ using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- ♣ identifying differences, similarities or changes related to simple scientific ideas and processes
- ♣ using straightforward scientific evidence to answer questions or to support their findings.

UKS2

During years 5 and 6, pupils will be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- ♣ planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- ♣ taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- ♣ recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- ♣ using test results to make predictions to set up further comparative and fair tests
- ♣ reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- ♣ identifying scientific evidence that has been used to support or refute ideas or arguments.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Me and My World	Terrific Tales	Amazing Animals	Enchanted Lands and Castles	Out of this World	Seasides and Journeys
<p>Science is taught through Understanding of the World. It is introduced through activities that encourage every child to explore, problem solve, observe, predict, think, make decisions and talk about the world around them. Through a range of different contexts children will learn wide range of vocabulary which will be built on in Year 1 and beyond.</p> <p>They will</p> <ul style="list-style-type: none"> • explore the natural world around them, making observations and drawing pictures of animals and plants • know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class • understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 						
Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Animals including humans – About Me	Animals including humans – About Animals	Everyday Materials	Plants	Seasonal Changes	Every day materials 2
Year 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Everyday Materials	All about diet	Animals Including Humans- Growth	Living things and their Habitats	Habitats around the World	Plants
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2

Year 3	Light	Rocks	Animals including Humans	Forces and Magnets	Exploring the world of Plants	Plant life cycles
Year 4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Sound	States of matter	Electricity	Food and Digestion	Living Things and the Environment	Food and digestion (Inc food chains)
Year 5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Forces	Earth and Space	Properties of materials	Changes of materials	Explore life cycles	Living Things
Year 6	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Electricity	Light	Evolution and Inheritance	Sex Ed	Living Things and Habitats	Blood Transportation

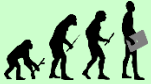
Biology

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Plants</p>	<p>Know that plants grow from a seed – bean in a bag, cress. Life cycle of a plant</p> <p>Know that plants need water, soil and sun to grow.</p> <p>Name different parts of a plant – children introduced to stem, roots, flower, leaves</p>	<p>Identify and name a variety of common and wild and garden plants, including deciduous and evergreen trees - buttercup, daisy, dandelion stinging nettle, pine tree, holly,</p> <p>Identify and describe the basic structure of a variety of common flowering plants, including trees –</p>	<p>Observe and describe how seeds and bulbs into mature plants</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</p> <p>Jane Colden 1724 - 1766 (America's first female botanist)</p>	<p>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</p> <p>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</p> <p>Investigate the way in which water is transported within plants</p>			

		recap - stem, roots, flower, leaves, branch (be able to explain what they are)		Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal Sir Joseph Banks 1743 - 1820 (English naturalist and botanist)			
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Animals including humans</p>	<p>Know how to take care of a pet – needs e.g exercise</p> <p>Naming animals and their habitat – farm, sea, wild</p> <p>Know how to keep their body healthy. Inc good oral hygiene</p> <p>Name parts of the body – arm, knees, elbows, waist, ankle</p>	<p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</p> <p>Group animals according to what they eat</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores</p> <p>Describe and compare the structure of a</p>	<p>Understand that animals, including humans, have offspring which grow into adults</p> <p>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types</p>	<p>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</p> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement</p>	<p>Describe the simple functions of the basic parts of the digestive system in humans</p> <p>Identify the different types of teeth in humans and their simple functions</p> <p>Construct and interpret a variety of food chains,</p>	<p>Describe the changes as humans develop to old age</p> <p>James Watson 1928 (genetics)</p>	<p>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>Describe the ways in which nutrients and water are transported within</p>

	<p>Know we have a skeleton – skull, ribs, and how it protects organs</p> <p>Explore the 5 senses</p>	<p>variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</p> <p>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense - arms, eyes, nose, mouth, arms, legs, head, skull, stomach, heart, fingers, toes, feet, hands</p> <p>George Mottershead 1894 – 1978 (Founded Chester Zoo)</p>	<p>of food, and hygiene</p> <p>Edward Jenner 1749 - 1823 (smallpox vaccine)</p> <p>Louis Pasteur 1822- 1895 (bacteria and pasteurisation)</p>		<p>identifying producers, predators and prey</p>		<p>a within animals, including humans</p> <p>Alexander Flemming 1881 - 1955 (penicillin)</p> <p>Dr Daniel Hale Williams 1856 - 1931 (first open heart surgery)</p>
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Living things and their habitats	Look at where animals live		Explore and compare the differences between things that are living, dead, and things that have never been alive		Recognise that living things can be grouped in a variety of ways	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	Describe how living things are classified into broad groups according to common observable

			<p>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</p> <p>Identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>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.</p> <p>Rachel Carson 1907 – 1964 (conservationist)</p>		<p>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment</p> <p>Recognise that environments can change and that this can sometimes pose dangers and have an impact on living things.</p> <p>Eugenie Clark 1922 – 2015 (marine biologist)</p>	<p>Describe the life process of reproduction in some plants and animals</p> <p>David Attenborough 1926 (naturalist)</p> <p>Jane Goodall 1934 (anthropologist)</p>	<p>characteristics and based on similarities and differences, including micro-organisms, plants and animals</p> <p>Give reasons for classifying plants and animals based on specific characteristics</p> <p>Carl Linnaeus 1707 – 1778 (classified living things)</p> <p>Charles Darwin 1809 – 1882 (theory of evolution)</p>
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
							Recognise that living things have

<p>Evolution and inheritance</p> 							<p>changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</p> <p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</p> <p>Mary Leakey 1913 - 1996 (discovered fossils that provided</p>
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Science Content Progression




							evidence on evolution)
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Chemistry

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Materials</p> 	<p>Explore and describe some different materials – strongest, waterproof. Natural materials – straw, sticks linked to topic</p> <p>Explore properties of materials that float and sink</p>	<p>Distinguish between an object and the material from which it is made</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p>Describe the simple physical properties of a variety of everyday materials</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties</p>	<p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</p> <p>Charles Macintosh 1766 – 1843 (First waterproof fabric)</p> <p>John McAdam 1756 – 1836 (modernised roads)</p>			<p>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</p> <p>Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</p> <p>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</p> <p>Give reasons, based on evidence from</p>	

		<p>Wilbur and Orville Wright 1867 – 1912/1871 - 1948 (first aeroplane)</p>				<p>comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes</p> <p>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.</p> <p>Spencer Silver 1941-2021 (invented POST Its) Ruth Benerito 1916 – 2013 (wash and wear cotton)</p>	


	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Rocks</p> 				<p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>Recognise that soils are made from rocks and organic matter</p> <p>Mary Anning 1799 – 1847 (Fossil collector/ Palaeontologist)</p>			


	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>States of Matter</p>	<p>Know that some materials can change</p> <p>water into ice chocolate can be melted ice melting experiment</p>				<p>Compare and group materials together, according to whether they are solids, liquids or gases</p> <p>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)</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</p> <p>Alfred Barnhard Nobel 1833- 1896 (explosives)</p>		


Physics


	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Seasonal changes</p>	<p>Know and describe different weather</p> <p>Know there are 4 seasons</p> <p>Observe changes through seasons—how the trees change, type of weather</p>	<p>Observe changes across the 4 seasons - be able to explain the changes</p> <p>Observe and describe weather associated with the seasons and how day length varies</p>					
<p>Earth and Space</p>						<p>Describe the movement of the Earth and other planets relative to the sun in the solar system</p> <p>Describe the movement of the moon relative to the Earth</p> <p>Describe the sun, Earth and moon as approximately spherical bodies</p>	

						<p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky</p> <p>Nicolaus Copernicus 1473- 1543 (sun at centre of universe - heliocentric)</p> <p>Ptolemy 100AD – 170AD (Greek astronomer – geocentric theory)</p> <p>Mae Gemison Stephen Hawking</p>	
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	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Light</p> 	<p>Know that a shadow is dark area on a bright surface and is cause by something blocking light</p> <p>Explore light travelling through different objects</p> <p>Explore light and dark with torches</p>			<p>Recognise that they need light in order to see things and that dark is the absence of light</p> <p>Notice that light is reflected from surfaces</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>Recognise that shadows are formed when the light from a light source is blocked by an opaque object</p> <p>Find patterns in the way that the size of shadows change</p> <p>Thomas Edison 1847 – 1931 (light bulb)</p>			<p>Recognise that light appears to travel in straight lines</p> <p>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</p> <p>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</p> <p>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them</p> <p>Lewis Howard Latimer (carbon filament lightbulb)</p>

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Forces and magnets</p> 	<p>Explore magnets</p>			<p>Compare how things move on different surfaces</p> <p>Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance</p> <p>Observe how magnets attract or repel each other and attract some materials and not others</p> <p>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</p> <p>Describe magnets as having 2 poles</p> <p>Predict whether 2 magnets will attract or repel each other, depending on which poles are facing</p> <p>James Clerk Maxwell 1831 - 1879 (electromagnetism)</p>		<p>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</p> <p>Isaac Newton 1642 - 1726 (theory of gravity)</p> <p>Archimedes 287BC – 212BC (buoyancy/ displacement)</p> <p>Gallileo 1564 - 1642 (Galileo drop – gravity)</p>	

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Sound</p> 	<p>Senses – what can you hear?</p>				<p>Identify how sounds are made, associating some of them with something vibrating</p> <p>Recognise that vibrations from sounds travel through a medium to the ear</p> <p>Find patterns between the pitch of a sound and features of the object that produced it</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it</p> <p>Recognise that sounds get fainter as the distance from the sound source increases</p> <p>Albert Einstein 1879 - 1955</p>		

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Electricity</p> 					<p>Identify common appliances that run on electricity</p> <p>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <p>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</p>		<p>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p>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</p> <p>Use recognised symbols when representing a simple circuit in a diagram</p> <p>Nikola Tesla 1856 – 1943</p>


					<p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</p> <p>Recognise some common conductors and insulators, and associate metals with being good conductor</p> <p>Benjamin Franklin 1706 – 1790 (lightning rod)</p>		
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KEY VOCABULARY

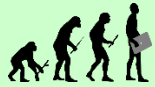
Year groups to go over vocabulary learnt in previous years

Programme of study	EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<p>Plants</p>	Flower Leaf Branch Stem Root Seed	Plant Soil Water Light Seed Seedling Trunk Branches petal Deciduous Evergreen	Temperature Insulate Artificial Natural Absorb Nutrient Produce Bulb Carbon dioxide Oxygen Conditions Glucose Photosynthesis Pollen Ovule Stigma Anther	Germination Shoot Sapling Transpiration Xylem Phloem Vascular Non vascular Stomata Reproduction Spores Fungi Insectivorous Biodiversity Deforestation Pollution Anchor Store Pollination Fertilisation Germination Dispersal Reproduction Filament			

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Animals</p>	<p>Arms Legs Head Teeth Hair</p>	<p>Food Water Shelter Air Energy Bird Amphibian Fish Reptile Mammal Class Offspring Carnivore Herbivore Omnivore Sense Sight, taste, smell, touch, hear Head Torso Organs Exercise</p>	<p>Nutrition Vitamins Protein Carbohydrate Food groups Hygiene Nutrients Vaccine Disease Birth Growth Reproduction Life cycle Child Teenager Adult Elderly Metamorphosis Characteristics</p>	<p>Balanced diet Involuntary/voluntary muscles Biceps Triceps Hamstring muscle Skeleton Bone Rib cage Achilles tendon Cartilage Marrow Ligament Tendon Vertebrae Contract and relax</p>	<p>Saliva Salivary gland Digest Taste buds Incisors Canines Molars Small/large Intestines Appendix Produce Consumer Decomposer</p>	<p>Foetus Embryo Puberty Egg Sperm Ovary Testes Fertilisation Gestation Adolescence Hormones Cataract Cardiovascular Neurodegenerative</p>	<p>Red blood cell Platelet Haemoglobin Plasms Antibody Trachea Bronchi Alveoli Capillary Diaphragm Spleen Liver Microorganism Transfusion Phlebotomist Pancreas Insulin Diabetes Prokaryotes Nucleus Probiotics Transportation Cell Circulatory system Blood vessels Artery Vein Involuntary Oxygenated Pulse Addiction Poison</p>

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Living things and their Habitats</p> 			Habitat Microhabitat Woodland Rainforest Desert Climate Moisture Extinct Endangered Ocean Plankton Coral reef Marine Ecosystem Deforestation Pollution Poaching Food chain Producer Consumer		Ecology Wetland Interdependent Climate change Emissions Chemical Contaminate Conserve Sediment Vertebrate Invertebrate Classify Species Characteristics Amphibian Exoskeleton Cold/warm blooded Gills Migration Hibernation	Naturalist Primate Fertilisation Genes Mammary gland Metamorphosis Larva Asexual Plantlet Bacteria	Micro organism Multi cellular Unicellular Mycellum Fungi Yeast Hyphae

Evolution and Inheritance



Adaptation
Insulating
Fossilisation
Evidence
Genetically modified
Toxin
Resilience
Generation
Species
Evolution
DNA
Ancestor
Extinct
Natural selection
Specimen
Palaeontologist

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Materials</p>		Materials Glass Plastic Cardboard Wood Properties Transparent Opaque Translucent Flexible Rigid Absorb Absorbent Magnet Magnetic Non-magnetic North pole South pole	Repel Penetrate Waterproof Squash Bend Twist Stretch Brick Rubber Stone Paper			Irreversible Permanent Burning Activate Physical/chemical change Rust Iron oxide Solution Dissolve Solute Saturated Solvent Separate Filter Sieve Evaporate Reaction Conductive Solubility Durable Flexibility Non renewable Renewable Sustainable Conduction Thermal conductivity Insulation Insulator	

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Rocks</p> 				Metamorphic Rock Igneous Sedimentary Magma Mineral Fossil Peat Clay/sandy/chalky Soil Texture Lichen Chemical/physical/ Biological weathering Marble Sandstone Limestone Granite			

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>States of Matter</p>					States of matter Particle Volume Temperature Thermometer Dissolve Dilute Soluble Solute Evaporation Condensation Water vapour Water cycle Precipitation Transpiration Melting Freezing Deposition Reversible		
<p>Seasonal changes</p>		Spring Summer Winter Autumn Weather Seasons Temperature	-				

<p>Earth and Space</p> 						<p>Heliocentric Geocentric Orbit Axis Eclipse Hemisphere Poles Gravitational force Solar system Celestial Astronomy Universe Expand Phase Illuminate Waxing Waning</p>	
<p>Light</p> 				<p>Shadow Transparent Opaque Concave Convex Reflection Telescope Periscope Reflective Fluorescent Ultra violet rays Calcium</p>			<p>Luminous Non luminous Refraction Refracting Spectrum Distorted Magnify Filter</p>

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Forces and Magnets</p> 				Lodestone Iron Ore Attract Repel Magnetic Magnetic field North/south pole Compass Solar Radiation Propulsion Friction Pendulum tilt		Gravity Water resistance Streamlined Friction Drag Mass Volume Buoyant Gear Mechanism Lever Fulcrum	
<p>Sound</p> 					Sound wave Echo Pinna Diffraction Fade Vibration Transmit Clarity Particles		
<p>Electricity</p>					Circuit Switch Component Electrons Current Continuous		Static electricity Electric shock Discharge Series circuit Voltage Output

						Represent Conductor Insulator Resistance Electrical appliance Bulb Battery precaution	Synchronised Receiver Sensor LED Variable resistor Resistor
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Progression of skills

	Year 1 Animals	Year 1 plants	Year 1 Materials	Year 1 Seasonal change	Year 2 Animals including humans	Year 2 Plants	Year 2 Materials	Year 2 Living things and their habitats
Ask simple questions and recognise that they can be answered in different ways								
Observe closely, using								

	Year 5 Living Things	Year 5 Animals	Year 5 Materials	Year 5 Earth and Space	Year 5 Forces	Year 6 Living Things	Year 6 Animals	Year 6 Evolution	Year 6 Light	Year 6 Electricity
Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary										
Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate										
Record data and results of increasing complexity using scientific diagrams and labels, classification										

Science Content Progression

