

ST AUGUSTINE'S SCIENCE KNOWLEDGE CURRICULUM PROGRESSION MAP – EYFS and KEY STAGE 1

	Reception	Year 1	Year 2
TOPICS over the YEAR		<ul style="list-style-type: none"> Animals including Humans Seasonal Changes Plants Everyday Materials 	<ul style="list-style-type: none"> Animals including humans Living things and their habitats Plants Uses of everyday materials
BIOLOGY ANIMALS INCLUDING HUMANS	<ul style="list-style-type: none"> AH/R1 talk about some of the things he/she has observed such as plants, animals, natural and found objects 	<ul style="list-style-type: none"> AH1 identify and name a variety of common animals including, fish, amphibians, reptiles, birds and mammals AH2 identify and name a variety of common animals that are carnivores, herbivores and omnivores AH3 describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) AH4 identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. 	<ul style="list-style-type: none"> AH5 notice that animals, including humans, have offspring which grow into adults AH6 find out about and describe the basic needs of animals, including humans, for survival (water, food and air) AH7 describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.
LIVING THINGS AND THEIR HABITATS	<ul style="list-style-type: none"> LH/R1 To comment and ask questions about aspects of his/her familiar world such as the place where he/she lives or the natural world 	<ul style="list-style-type: none"> LH1 observe changes across the four seasons LH2 observe and describe weather associated with the seasons and how day length varies. 	<ul style="list-style-type: none"> LH3 explore and compare the differences between things that are living, dead, and things that have never been alive LH4 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 LH5 identify and name a variety of plants and animals in their habitats, including micro-habitats LH6 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.
PLANTS	<ul style="list-style-type: none"> P/R1 Makes observations of animals and plants and explains why some things occur, and talk about changes 	<ul style="list-style-type: none"> P1 identify and name a variety of common wild and garden plants, including deciduous and evergreen trees P2 identify and describe the basic structure of a variety of common flowering plants, including trees. 	<ul style="list-style-type: none"> P3 observe and describe how seeds and bulbs grow into mature plants P4 find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.
CHEMISTRY MATERIALS AND THEIR PROPERTIES (MP)	<ul style="list-style-type: none"> MP/R1 Knows about similarities and differences in relation to places, objects, materials and living things 	<ul style="list-style-type: none"> MP1 distinguish between an object and the material from which it is made MP2 identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock MP3 describe the simple physical properties of a variety of everyday materials MP4 compare and group together a variety of everyday materials on the basis of their simple physical properties. 	<ul style="list-style-type: none"> MP5 identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses MP6 find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

ST AUGUSTINE'S SCIENCE KNOWLEDGE CURRICULUM PROGRESSION MAP – KEY STAGE 2

	Year 3	Year 4	Year 5	Year 6
TOPICS over the YEAR	<ul style="list-style-type: none"> Animals including Humans Plants Light Forces and Magnets Rocks and Fossils 	<ul style="list-style-type: none"> Animals including Humans Living Things and their Habitats States of Matter Sound Electricity 	<ul style="list-style-type: none"> Animals including Humans Living Things and Their Habitats Properties and Changes of Materials Forces Earth and Space 	<ul style="list-style-type: none"> Animals including Humans Living things and their Habitats Evolution and Inheritance Electricity Light
BIOLOGY ANIMALS INCLUDING HUMANS	<ul style="list-style-type: none"> AH8 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 AH9 identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<ul style="list-style-type: none"> AH10 describe the simple functions of the basic parts of the digestive system in humans AH11 identify the different types of teeth in humans and their simple functions AH12 construct and interpret a variety of food chains, identifying producers, predators and prey. 	<ul style="list-style-type: none"> AH13 describe the changes as humans develop to old age. 	<ul style="list-style-type: none"> AH14 identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood AH15 recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function AH16 describe the ways in which nutrients and water are transported within animals, including humans.
PLANTS/LIVING THINGS IN THEIR HABITATS	<ul style="list-style-type: none"> P5 identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers P6 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 P7 investigate the way in which water is transported within plants P8 explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 	<ul style="list-style-type: none"> LH7 recognise that living things can be grouped in a variety of ways LH8 explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment LH9 recognise that environments can change and that this can sometimes pose dangers to living things. 	<ul style="list-style-type: none"> LH10 describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird LH11 describe the life process of reproduction in some plants and animals. 	<ul style="list-style-type: none"> LH12 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 LH13 give reasons for classifying plants and animals based on specific characteristics.
EVOLUTION AND INHERITANCE				<ul style="list-style-type: none"> EI1 recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago EI2 recognise that living things

				<p>produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <ul style="list-style-type: none"> • E13 identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
CHEMISTRY MATERIALS YEARS 4/5		<ul style="list-style-type: none"> • MP 7 compare and group materials together, according to whether they are solids, liquids or gases • MP8 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) • MP9 identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	<ul style="list-style-type: none"> • MP10 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 • MP11 know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution • MP12 use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating • MP13 give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • MP14 demonstrate that dissolving, mixing and changes of state are reversible changes • MP15 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. 	
PHYSICS LIGHT – YEARS 3/6 SOUND – YEAR 4	<ul style="list-style-type: none"> • L1 recognise that they need light in order to see things and that dark is the absence of light • L2 notice that light is reflected from surfaces • L3 recognise that light from the sun can be dangerous and 	<ul style="list-style-type: none"> • S1 identify how sounds are made, associating some of them with something vibrating • S2 recognise that vibrations from sounds travel through a medium to the ear • S3 find patterns between the pitch of a sound and features 		<ul style="list-style-type: none"> • L6 recognise that light appears to travel in straight lines • L7 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

	<ul style="list-style-type: none"> that there are ways to protect their eyes L4 recognise that shadows are formed when the light from a light source is blocked by an opaque object L5 find patterns in the way that the size of shadows change. 	<ul style="list-style-type: none"> of the object that produced it S4 find patterns between the volume of a sound and the strength of the vibrations that produced it S5 recognise that sounds get fainter as the distance from the sound source increases. 		<ul style="list-style-type: none"> L8 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 L9 use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
FORCES – YEARS 3/5 ELECTRICITY – YEARS 4/6	<ul style="list-style-type: none"> F1 compare how things move on different surfaces F2 notice that some forces need contact between two objects, but magnetic forces can act at a distance F3 observe how magnets attract or repel each other and attract some materials and not others F4 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 F5 describe magnets as having two poles F6 predict whether two magnets will attract or repel each other, depending on which poles are facing. 	<ul style="list-style-type: none"> E1 identify common appliances that run on electricity E2 construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers E2 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 E4 recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit E5 recognise some common conductors and insulators, and associate metals with being good conductors. 	<ul style="list-style-type: none"> F7 explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object F8 identify the effects of air resistance, water resistance and friction, that act between moving surfaces F9 recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. 	<ul style="list-style-type: none"> E6 associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit E7 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 E8 use recognised symbols when representing a simple circuit in a diagram.
EARTH SCIENCES – YEARS 3/5	<ul style="list-style-type: none"> ES1 compare and group together different kinds of rocks on the basis of their appearance and simple physical properties ES2 describe in simple terms how fossils are formed when things that have lived are trapped within rock ES3 recognise that soils are made from rocks and organic matter. 		<ul style="list-style-type: none"> ES4 describe the movement of the Earth, and other planets, relative to the Sun in the solar system ES5 describe the movement of the Moon relative to the Earth ES6 describe the Sun, Earth and Moon as approximately spherical bodies ES7 use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. 	