



Statutory Framework Objectives	EYFS:	Key Stage 1:	Key Stage 2:				
	<p>The Natural World ELG</p> <p>Children at the expected level of development 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. 	<p>Working Scientifically skills are taught in 2 year blocks to ensure children have opportunity to apply these skills to a range of different biology, chemistry and physics contexts (where appropriate).</p> <p>Primary National Curriculum - Science</p>	<p>Working Scientifically skills are taught in 2 year blocks to ensure children have opportunity to apply these skills to a range of different biology, chemistry and physics contexts (where appropriate).</p> <p>Primary National Curriculum - Science</p>				

Year	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
-------------	----------------	------------------	---------------	---------------	---------------	---------------	---------------	---------------

Working Scientifically

<u>Classifying</u>			<p><u>To ask scientific questions:</u></p> <p>Be able to ask a yes/no question to aid sorting</p> <p><u>To plan an enquiry:</u></p> <p>Identify the headings for the two groups (it is.. / it is not..)</p> <p><u>To observe closely</u></p> <p>Be able to compare objects based on obvious, observable features e.g. size, shape, colour, texture etc.</p> <p><u>To present results</u></p> <p>Sort objects and living things into two group using a basic Venn diagram or simple table</p> <p><u>To interpret results</u></p> <p>Talk about the number of objects in each group i.e. which has more or less</p>	<p><u>To ask scientific questions:</u></p> <p>Be able to ask a range of Yes/No questions to aid sorting</p> <p><u>To plan an enquiry:</u></p> <p>Be able to put appropriate headings onto intersecting Venn and Carroll diagrams</p> <p><u>To observe closely</u></p> <p>Be able to compare objects based on more sophisticated, observable features. Present observations in labelled diagrams.</p> <p><u>To present results</u></p> <p>Sort objects and living things into groups using intersecting Venn and Carroll diagrams</p> <p><u>To interpret results</u></p> <p>Spot patterns in the data particularly two criteria with no examples e.g. there are no living things with wings and no legs</p>	<p><u>To ask scientific questions:</u></p> <p>Be able to ask a range of Yes/No questions to aid sorting and decide which ways of sorting will give useful information</p> <p><u>To plan an enquiry:</u></p> <p>Identify specific clear questions that will help to sort without ambiguity</p> <p><u>To observe closely</u></p> <p>Be able to compare not only based on physical properties but also on knowledge gained through previous enquiry</p> <p><u>To present results</u></p> <p>Create branching databases (tree diagrams) and keys to enable others to name living things and objects</p> <p><u>To interpret results</u></p> <p>Be able to talk about the features that objects and living things share and do not share based</p>
---------------------------	--	--	--	---	---



				<p><u>To draw conclusions</u></p> <p>Draw simple conclusions, when appropriate, for patterns e.g. a flying insect with no legs might always crash land</p> <p><u>To evaluate an enquiry</u></p> <p>Suggest improvement e.g. a wider range of objects – only looked at British trees. Suggest new questions arising from the investigation.</p>	<p>on the information in the key etc.</p> <p><u>To draw conclusions</u></p> <p>Be able to use data to show that living things and materials that are grouped together have more things in common than with things in other groups</p> <p><u>To evaluate an enquiry</u></p> <p>Be able to explain using evidence that the branching database or classification key will only work for the living things or materials it was created for</p>
<u>Researching</u>			<p><u>To ask scientific questions:</u></p> <p>Ask one or two simple questions linked to a topic</p> <p><u>To present results</u></p> <p>Present what they have learnt verbally or using pictures</p> <p><u>To interpret results</u></p> <p>Be able to answer their questions using simple sentences</p>	<p><u>To ask scientific questions:</u></p> <p><i>Ask a range of questions linked to a topic</i></p> <p><u>To plan an enquiry:</u></p> <p>Choose a source from a range provided</p> <p><u>To present results</u></p> <p>Present what they learnt verbally or using labelled diagrams</p> <p><u>To interpret results</u></p> <p>Be able to answer their questions using simple scientific language</p> <p><u>To evaluate an enquiry</u></p> <p>Suggest limitations e.g. only had one book. Suggest new questions arising from the investigation.</p>	<p><u>To ask scientific questions:</u></p> <p>Ask a range of questions recognising that some can be answered through research and others may not</p> <p><u>To plan an enquiry:</u></p> <p>Choose suitable sources to use</p> <p><u>To present results</u></p> <p>Present what they learnt in a range of ways e.g. different graphic organisers</p> <p><u>To interpret results</u></p> <p>Be able to answer their questions using scientific evidence gained from a range of sources</p> <p><u>To evaluate an enquiry</u></p> <p>Be able to talk about their degree of trust in the sources they used</p>
<u>Comparative/ Fair testing</u>			<p><u>To ask scientific questions:</u></p> <p>Identify the question to investigate from a scenario or choose a question from a range provided</p> <p><u>To plan an enquiry</u></p> <p><i>Choose equipment to use and decide what to do and what to observe or measure in order to answer the question</i></p> <p><u>To observe closely</u></p>	<p><u>To ask scientific questions:</u></p> <p><i>Ask a range of questions linked to a topic</i></p> <p><u>To plan an enquiry:</u></p> <p>Decide what to change and what to measure or observe</p> <p><u>To observe closely</u></p> <p>Make observations linked to answering the question</p>	<p><u>To ask scientific questions:</u></p> <p><i>Ask a range of questions and identify the type of enquiry that will help to answer the questions. Ask further questions based on results.</i></p> <p><u>To plan an enquiry:</u></p> <p><i>Recognise and control variables where necessary</i></p> <p><u>To observe closely</u></p> <p><i>Make observations linked to answering the</i></p>



			<p><i>Make observations linked to answering the question</i></p> <p><u>To take measurements</u></p> <p><i>When appropriate, measure using standard units where all the numbers are marked on the scale</i></p> <p><u>To gather/record results</u></p> <p>Record data in simple prepared tables, pictorially or by taking photographs</p> <p><u>To present results</u></p> <p>Present what they learnt verbally, using pictures or block diagrams</p> <p><u>To interpret results</u></p> <p><i>Answer their question in simple sentences using their observations or measurements</i></p>	<p><u>To take measurements</u></p> <p>Measure using standard units where not all the numbers are marked on the scale, and take repeat readings where necessary</p> <p><u>To gather/record results</u></p> <p>Prepare own tables to record data</p> <p><u>To present results</u></p> <p>Present data in bar charts</p> <p><u>To interpret results</u></p> <p><i>Refer directly to their evidence when answering their question</i></p> <p><u>To draw conclusions</u></p> <p><i>Where appropriate provide oral or written explanations for their findings</i></p> <p><u>To make a prediction</u></p> <p><i>Use results from an investigation to make a prediction about a further result</i></p> <p><u>To evaluate an enquiry</u></p> <p><i>Suggest improvements e.g. to method of taking measurements. Suggest new questions arising from the investigation.</i></p>	<p><i>question</i></p> <p><u>To take measurements</u></p> <p><i>Measure using standard units using equipment that has scales involving decimals</i></p> <p><u>To gather/record results</u></p> <p>Prepare own tables to record data, including columns for taking repeat readings</p> <p><u>To present results</u></p> <p>Choose an appropriate form of presentation, including line graphs</p> <p><u>To interpret results</u></p> <p>Be able to answer their question, describing causal relationships</p> <p><u>To draw conclusions</u></p> <p><i>Provide oral or written explanations for their findings</i></p> <p><u>To make a prediction</u></p> <p><i>Use test results to make predictions for further investigations</i></p> <p><u>To evaluate an enquiry</u></p> <p><i>Explain their degree of trust in their results e.g. precision in taking measurements, variables that may not have been controlled, and accuracy of results</i></p>
<p><u>Observing over time</u></p>			<p><u>To ask scientific questions:</u></p> <p>Ask a question about what might happen in the future based on an observation</p> <p><u>To plan an enquiry</u></p> <p><i>Choose equipment to use and decide what to do and what to observe or measure in order to answer the question</i></p> <p><u>To observe closely</u></p> <p><i>Make observations linked to answering the question</i></p>	<p><u>To ask scientific questions:</u></p> <p><i>Ask a range of questions linked to a topic</i></p> <p><u>To plan an enquiry:</u></p> <p>Decide what to measure or observe. Decide how often to take a measurement.</p> <p><u>To observe closely</u></p> <p>Make a range of relevant observations</p> <p><u>To take measurements</u></p> <p>Measure using standard units where not all the</p>	<p><u>To ask scientific questions:</u></p> <p><i>Ask a range of questions and identify the type of enquiry that will help to answer the questions. Ask further questions based on results.</i></p> <p><u>To plan an enquiry:</u></p> <p><i>Recognise and control variables where necessary</i></p> <p><u>To observe closely</u></p> <p><i>Make observations linked to answering the question</i></p>



			<p><u>To take measurements</u></p> <p><i>When appropriate, measure using standard units where all the numbers are marked on the scale</i></p> <p><u>To gather/record results</u></p> <p>Record data in simple prepared tables, pictorially or by taking photographs</p> <p><u>To present results</u></p> <p>Present what they learnt verbally or using pictures</p> <p><u>To interpret results</u></p> <p><i>Answer their question in simple sentences using their observations or measurements</i></p>	<p>numbers are marked on the scale. Use dataloggers to measure over time.</p> <p><u>To gather/record results</u></p> <p><i>Prepare own tables to record data</i></p> <p><u>To present results</u></p> <p>Present data in time graphs</p> <p><u>To interpret results</u></p> <p><i>Refer directly to their evidence when answering their question</i></p> <p><u>To draw conclusions</u></p> <p><i>Where appropriate provide oral or written explanations for their findings</i></p> <p><u>To make a prediction</u></p> <p><i>Use results from an investigation to make a prediction about a further result</i></p> <p><u>To evaluate an enquiry</u></p> <p><i>Suggest improvements e.g. to method of taking measurements. Suggest new questions arising from the investigation.</i></p>	<p><u>To take measurements</u></p> <p><i>Measure using standard units using equipment that has scales involving decimals</i></p> <p><u>To gather/record results</u></p> <p><i>Prepare own tables to record data</i></p> <p><u>To present results</u></p> <p><i>Choose an appropriate form of presentation, including line graphs</i></p> <p><u>To interpret results</u></p> <p>Be able to answer their questions, describing the change over time</p> <p><u>To draw conclusions</u></p> <p><i>Provide oral or written explanations for their findings</i></p> <p><u>To make a prediction</u></p> <p><i>Use test results to make predictions for further investigations</i></p> <p><u>To evaluate an enquiry</u></p> <p><i>Explain their degree of trust in their results e.g. precision in taking measurements, variables that may not have been controlled, and accuracy of results</i></p>
<p><u>Pattern Seeking</u></p>			<p><u>To ask scientific questions:</u></p> <p>Ask a question that is looking for a pattern based on observations</p> <p><u>To plan an enquiry</u></p> <p><i>Choose equipment to use and decide what to do and what to observe or measure in order to answer the question</i></p> <p><u>To observe closely</u></p> <p><i>Make observations linked to answering the question</i></p> <p><u>To take measurements</u></p> <p><i>When appropriate, measure using standard units where all the numbers are marked on the scale</i></p>	<p><u>To ask scientific questions:</u></p> <p><i>Ask a range of questions linked to a topic</i></p> <p><u>To plan an enquiry:</u></p> <p>Decide what to measure or observe</p> <p><u>To observe closely</u></p> <p>Make observations linked to answering the question</p> <p><u>To take measurements</u></p> <p>Measure using standard units where not all the numbers are marked on the scale.</p> <p><u>To gather/record results</u></p>	<p><u>To ask scientific questions:</u></p> <p><i>Ask a range of questions and identify the type of enquiry that will help to answer the questions. Ask further questions based on results.</i></p> <p><u>To plan an enquiry:</u></p> <p><i>Recognise and control variables where necessary</i></p> <p><u>To observe closely</u></p> <p><i>Make observations linked to answering the question</i></p> <p><u>To take measurements</u></p> <p><i>Measure using standard units using equipment that has scales involving decimals</i></p>



			<p><u>To gather/record results</u></p> <p>Record data in simple, prepared tables and tally charts</p> <p><u>To present results</u></p> <p>Present what they learnt verbally</p> <p><u>To interpret results</u></p> <p>Answer their question in simple sentences using their observations or measurements</p>	<p><i>Prepare own tables to record data</i></p> <p><u>To present results</u></p> <p>Use ICT package to present data as a scattergram</p> <p><u>To interpret results</u></p> <p><i>Refer directly to their evidence when answering their question</i></p> <p><u>To draw conclusions</u></p> <p><i>Where appropriate provide oral or written explanations for their findings</i></p> <p><u>To make a prediction</u></p> <p><i>Use results from an investigation to make a prediction about a further result</i></p> <p><u>To evaluate an enquiry</u></p> <p><i>Suggest improvements e.g. to method of taking measurements. Suggest new questions arising from the investigation.</i></p>	<p><u>To gather/record results</u></p> <p><i>Prepare own tables to record data</i></p> <p><u>To present results</u></p> <p>Choose an appropriate form of presentation, including scatter graphs</p> <p><u>To interpret results</u></p> <p>Be able to answer their questions identifying patterns</p> <p><u>To draw conclusions</u></p> <p><i>Provide oral or written explanations for their findings</i></p> <p><u>To make a prediction</u></p> <p><i>Use test results to make predictions for further investigations</i></p> <p><u>To evaluate an enquiry</u></p> <p><i>Explain their degree of trust in their results e.g. precision in taking measurements, variables that may not have been controlled, and accuracy of results</i></p>
--	--	--	---	---	---

Specific Subject Knowledge (Biology, Chemistry and Physics)

<u>Specific Subject Knowledge:</u> Plants	<p>Begin to understand the need to respect and care for the natural environment and living things.</p> <p>Understand the key features of the life cycle of a plant and an animal.</p> <p>Plant seeds and care for growing plants.</p> <p>• <i>Grow plants</i></p>	<p>• <i>Grow plants</i></p>	<p>Plants - Y1 T6 & throughout the year</p> <p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</p> <ul style="list-style-type: none"> Identify and describe the basic structure of a variety of common flowering plants, including trees. 	<p>Plants - Y2 T1, T6 & throughout the year</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats.</p> <ul style="list-style-type: none"> 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 	<p>Plants Y3 T5 & throughout the year</p> <p>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.</p> <ul style="list-style-type: none"> 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 	<p>Plants Y5 T5</p> <p>Describe the life process of reproduction in some plants and animals.</p>	
---	---	-----------------------------	--	--	--	---	--



Hitherfield Primary School Progression Framework for: Science

				grow and stay healthy.	transported within plants. • Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.			
<u>Specific Subject Knowledge:</u> Animals	<p>Begin to understand the need to respect and care for the natural environment and living things.</p> <p>Understand the key features of the life cycle of a plant and an animal.</p> <ul style="list-style-type: none"> • Learn about the life cycles of animals • Compare adult animals to their babies • Observe how baby animals change over time. 	<p><i>* Name and describe animals that live in different habitats.</i></p> <p><i>* Describe different habitats</i></p>	<p>Animals - Y1 T4 & throughout the year</p> <p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p> <ul style="list-style-type: none"> • 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). 	<p>Animals Y2 T3 & T4</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats.</p> <ul style="list-style-type: none"> • 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). 	<p>Animals Y3 T1</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> <ul style="list-style-type: none"> • Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 		<p>Animals Y5 T6</p> <p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</p> <ul style="list-style-type: none"> • Describe the life process of reproduction in some plants and animals. 	<p>Animals Y6 T3</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans.</p>
<u>Specific Subject Knowledge:</u> Habitats	<ul style="list-style-type: none"> • Explore the surrounding natural environment • Explore natural objects from the surrounding environment 	<p>Understand the effect of changing seasons on the natural world around them e.g. weather, plants, animals etc.</p> <ul style="list-style-type: none"> • Explore the plants in the surrounding natural environment • Explore the animals in the surrounding natural environment • Explore plants and animals in a contrasting natural environment 	<p>Habitats (seasonal changes) Y1 T6 & throughout the year</p> <ul style="list-style-type: none"> • Observe changes across the four seasons. • Observe and describe weather associated with the seasons and how day length varies. 	<p>Habitats Y2 T1, T5, T6 & throughout the year</p> <p>Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <ul style="list-style-type: none"> • 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 		<p>Living things and habitats Y4 T6 & throughout the year</p> <p>Recognise that living things can be grouped in a variety of ways.</p> <ul style="list-style-type: none"> • 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 		<p>Living things and habitats Y6 T2</p> <p>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.</p> <ul style="list-style-type: none"> • Give reasons for classifying plants and animals based on specific characteristics.



Hitherfield Primary School Progression Framework for: Science

		<p><i>* Play and explore outside in all seasons and in different weather</i></p> <p><i>* Observe living things throughout the year</i></p>		<p>animals and plants, and how they depend on each other.</p> <ul style="list-style-type: none"> • 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. 		<p>change and that this can sometimes pose dangers to living things.</p> <ul style="list-style-type: none"> • Construct and interpret a variety of food chains, identifying producers, predators and prey. 		
<p><u>Specific Subject Knowledge:</u> Evolution</p>				<p>Evolution - Habitats Y2 T5</p> <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>Evolution - Rocks/fossils Y3 T2</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</p>	<p>Evolution - Habitats Y4 T6 & throughout the year</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things.</p>		<p>Evolution Y6 T4 & 5</p> <p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p> <ul style="list-style-type: none"> • Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. • Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
<p><u>Specific Subject Knowledge:</u> Humans</p>	<ul style="list-style-type: none"> • Learn about the life cycles of humans • Learn about how to 	<ul style="list-style-type: none"> • Describe people who are familiar to them 	<p>Animals, including humans Y1 T2</p> <p>Identify, name, draw and label the basic</p>	<p>Animals, including humans Y2 T3 & T4</p> <p>Notice that animals, including humans,</p>	<p>Animals, including humans Y3 T1</p> <p>Identify that animals, including humans,</p>	<p>Animals, including humans Y4 T4</p> <p>Describe the simple functions of the basic</p>	<p>Animals, including humans Y5 T6</p> <p>Describe the changes as</p>	<p>Animals, including humans Y6 T3</p> <p>Identify and name the main parts of the</p>



Hitherfield Primary School Progression Framework for: Science

	<p><i>take care of themselves</i></p> <ul style="list-style-type: none"> • <i>Learn about their senses</i> 	<ul style="list-style-type: none"> • <i>Learn about how to take care of themselves</i> 	<p>parts of the human body and say which part of the body is associated with each sense.</p>	<p>have offspring which grow into adults.</p> <ul style="list-style-type: none"> • 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. 	<p>need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.</p> <ul style="list-style-type: none"> • Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<p>parts of the digestive system in humans.</p> <ul style="list-style-type: none"> • Identify the different types of teeth in humans and their simple functions. 	<p>humans develop to old age.</p>	<p>human circulatory system, and describe the functions of the heart, blood vessels and blood.</p> <ul style="list-style-type: none"> • 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.
<p><u>Specific Subject Knowledge:</u> Materials and their properties</p>	<p>Use all their senses in hands-on exploration of natural materials.</p> <p>Explore collections of materials with similar/ different properties.</p> <ul style="list-style-type: none"> • <i>Explore a range of materials</i> • <i>Shape and join materials</i> 	<p><i>Explore a range of materials, including natural materials</i></p> <ul style="list-style-type: none"> • <i>Make objects from different materials, including natural materials</i> 	<p>Materials Y1 T1, T3 & T5</p> <p>Distinguish between an object and the material from which it is made.</p> <ul style="list-style-type: none"> • 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. 	<p>Materials Y2 T2</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>Materials - Rocks Y3 T2</p> <p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</p> <ul style="list-style-type: none"> • 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. 		<p>Materials Y5 T1</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> <ul style="list-style-type: none"> • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. 	
<p><u>Specific Subject Knowledge:</u> Changing materials</p>	<p>Talk about the differences between materials and changes they notice</p> <ul style="list-style-type: none"> • <i>Combine and mix ingredients</i> • <i>Change materials by heating and cooling, including cooking</i> 	<ul style="list-style-type: none"> • <i>Observe, measure and record how materials change when heated and cooled</i> • <i>Compare how materials change over time and in different conditions</i> 		<p>Materials Y2 T4</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>Materials Y4 T2 & T3</p> <p>Compare and group materials together, according to whether they are solids, liquids or gases.</p> <ul style="list-style-type: none"> • Observe that some materials change state when they are heated or cooled, and measure or research the temperature at 	<p>Materials Y5 T5</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> <ul style="list-style-type: none"> • Use knowledge of solids, liquids and gases to 	



						<p>which this happens in degrees Celsius (°C).</p> <ul style="list-style-type: none"> • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	<p>decide how mixtures might be separated, including through filtering, sieving and evaporating.</p> <ul style="list-style-type: none"> • 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. 	
<p><u>Specific Subject Knowledge:</u> Forces</p>	<p>Talk about forces they can feel</p> <ul style="list-style-type: none"> • <i>Feel forces</i> • <i>Explore how things work</i> • <i>Explore how objects/materials are affected by forces</i> 	<ul style="list-style-type: none"> • <i>Explore how to change how things work</i> • <i>Explore how the wind can move objects</i> • <i>Explore how objects move in water</i> 		<p>Forces Y2 T4</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>Forces Y3 T3 & T4</p> <p>Compare how things move on different surfaces.</p> <ul style="list-style-type: none"> • 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 	<p>Forces Y5 T3 & Earth & Space T4</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> <ul style="list-style-type: none"> • 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. 		



					repel each other, depending on which poles are facing.			
<p><u>Specific Subject Knowledge:</u> Light</p>	<p><i>* Explore light sources</i></p> <p><i>• Shine light on or through different materials</i></p>	<p><i>• Explore shadows</i></p> <p><i>• Explore rainbows</i></p>	<p>Animals, including humans Y1 T2</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.</p>		<p>Light Y3 T6</p> <p>Recognise that they need light in order to see things and that dark is the absence of light.</p> <ul style="list-style-type: none"> • 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 an opaque object. • Find patterns in the way that the size of shadows change. 			<p>Light Y6 T6</p> <p>Recognise that light appears to travel in straight lines.</p> <ul style="list-style-type: none"> • 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. • 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.
<p><u>Specific Subject Knowledge:</u> Earth and space</p>	<p><i>• Learn about the Solar System and stars</i></p> <p><i>• Learn about space travel</i></p>		<p>Seasons - Y1 T6 & throughout the year</p> <p>Observe changes across the four seasons.</p> <ul style="list-style-type: none"> • Observe and describe weather associated with the seasons and how day length varies. 				<p>Earth & Space Y5 T4</p> <p>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</p> <ul style="list-style-type: none"> • 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 	



Hitherfield Primary School Progression Framework for: Science

							apparent movement of the sun across the sky.	
<p><u>Specific Subject Knowledge:</u> Electricity</p>	<ul style="list-style-type: none"> • Identify electrical devices • Use battery-powered devices 	<ul style="list-style-type: none"> • Identify electrical devices • Use battery-powered devices 				<p>Electricity Y4 T1</p> <p>Identify common appliances that run on electricity.</p> <ul style="list-style-type: none"> • 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. 		<p>Electricity Y6 T1</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> <ul style="list-style-type: none"> • 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. • Use recognised symbols when representing a simple circuit in a diagram.
<p><u>Specific Subject Knowledge:</u> Sound</p>	<ul style="list-style-type: none"> • Listen to sounds • Make sounds 	<ul style="list-style-type: none"> • Listen to sounds outside and identify the source • Make sounds 	<p>Animals, including humans Y1 T2</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.</p>			<p>Sound Y4 T4</p> <p>Identify how sounds are made, associating some of them with something vibrating.</p> <ul style="list-style-type: none"> • 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. 		



Hitherfield Primary School Progression Framework for: Science

						<ul style="list-style-type: none">• 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.		
--	--	--	--	--	--	---	--	--