### Science

#### Level Expected at the End of EYFS

We have selected the Early Learning Goals that link most closely to the Science National Curriculum.

#### **Understanding the World (The Natural World)**

- 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.

#### Personal, Social and Emotional Development Managing Self)

- Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.

	Key Stage 2 National Curriculum Expectations
During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching	Lower Key Stage 2
of the programme of study content:	During years 3 and 4, pupils should be taught to use the follow
<ul> <li>asking simple questions and recognising that they can be answered in different ways;</li> </ul>	skills through the teaching of the programme of study content:
<ul> <li>observing closely, using simple equipment;</li> </ul>	asking relevant questions and using different types of sci
performing simple tests;	<ul> <li>setting up simple practical enquiries, comparative and fai</li> </ul>
<ul> <li>identifying and classifying;</li> </ul>	making systematic and careful observations and, where a
<ul> <li>using their observations and ideas to suggest answers to questions;</li> </ul>	standard units, using a range of equipment, including the
gathering and recording data to help in answering questions.	• gathering, recording, classifying and presenting data in a
	<ul> <li>recording findings using simple scientific language, drawing tables;</li> </ul>
	<ul> <li>reporting on findings from enquiries, including oral and v results and conclusions;</li> </ul>
	<ul> <li>using results to draw simple conclusions, make prediction raise further questions;</li> </ul>
	identifying differences, similarities or changes related to a
	using straightforward scientific evidence to answer quest
	Upper Key Stage 2
	During years 5 and 6, pupils should be taught to use the follow skills through the teaching of the programme of study content:
	<ul> <li>planning different types of scientific enquiries to answer variables where necessary;</li> </ul>
	<ul> <li>taking measurements, using a range of scientific equipme repeat readings when appropriate;</li> </ul>
	<ul> <li>recording data and results of increasing complexity using tables, scatter graphs, bar and line graphs;</li> </ul>
	using test results to make predictions to set up further co
	<ul> <li>reporting and presenting findings from enquiries, in explanations of and a degree of trust in results, in ora presentations;</li> </ul>
	identifying scientific evidence that has been used to supp

owing practical scientific methods, processes and t:

- scientific enquiries to answer them;
- fair tests;
- e appropriate, taking accurate measurements using nermometers and data loggers;
- a variety of ways to help in answering questions; vings, labelled diagrams, keys, bar charts, and
- written explanations, displays or presentations of
- ons for new values, suggest improvements and
- o simple scientific ideas and processes; estions or to support their findings.
- owing practical scientific methods, processes and t:
- er questions, including recognising and controlling
- nent, with increasing accuracy and precision, taking
- ng scientific diagrams and labels, classification keys,
- comparative and fair tests;
- including conclusions, causal relationships and ral and written forms such as displays and other
- oport or refute ideas or arguments

<u>Booth</u>	ferry Prin	nary School	Progression I	<u>Map</u>														1		X
Year	Working	Scientifically ,	All Topic				Biology				Chemistry			Physics						
	Working	Scientifically ,	All Topic				Plants	Animals, including Humans	Living things and their environme nt	Evolution and inheritan ce	Everyday Materials and Uses	States of Matter	Properties and changes of materials	Light	Forces and Magnets	Sound	Electricit V	Earth Science Seasonal Change	Rocks Earth and Space	
EYFS	Childrer another	h know abo . They make	ut similarities e observations	and differences i s of animals and	n relation to plac plants and explai	ces, objects, in why some	materials and things occur a	living things and talk abo	s. They talk a ut changes.	bout the fe	eatures of th	ieir own in	nmediate ei	nvironme	nt and how	w enviroi	nments mi	ght vary fror	n one	
							<u>Plants</u>	Animals, including Humans	Living things and their environme	Evolution and inheritan ce	Everyday Materials and Uses	States of Matter	Properties and changes of	Light	Forces and Magnets	Sound	Electricit Y	Earth Science		
1	Asking simple question s and recognis ing that they can be answere d 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.	. identify and name a variety of common wild and garden plants, including deciduous and evergreen trees The Earth Our Home (Y2 NC) . Observe and describe how seeds and bulbs grow into mature plants. The Earth Our Home (Y2 NC) . Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. The Earth Our Home (Y2 NC)	describe and compare the structure of a variety of common animals (fish, amphibians , reptiles, birds and mammals including pets) The Earth Our Home (Y1 NC) identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense Super Humans (Y1 NC) Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). Super Humans of exercise,	. Explore and compare the differences between things that are living, dead, and things that have never been alive. The Earth Our Home (Y2 NC) . 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. The Earth Our Home (Y2 NC) . Identify and name a variety of plants and animals in their habitats The Earth Our Home (Y2 NC) . Identify and name a variety of plants and animals in their habitats The Earth Our Home (Y2 NC)		distinguish between an object and the material from which it is made What's It Made Of? (Y1 NC) identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock What's It Made Of? (Y1 NC) describe the simple physical properties of a variety of everyday materials What's It Made Of? (Y1 NC) describe the simple physical properties of a variety of everyday materials What's It Made Of? (Y1 NC) compare and group together a variety of everyday materials on the basis of their simple physical properties on the basis of their simple physical properties What's It Made Of? (Y1 NC) compare and group together a variety of everyday materials on the basis of their simple physical properties What's It Made Of? (Y1 NC) Identify and compare the suitability of a variety of							. observe changes across the 4 seasons The Earth Our Home (Y1 NC) . observe and describe weather associate d with the seasons and how day length varies The Earth Our Home (Y1 NC)		

								eating th right amounts different types of food, an hygiene Super Humans (Y2 NC)	he . Describ how anim s of obtain the food from plants an d other animals, using the idea of a simple fo chain, an identify a name different sources of food. The Eartl Our Hom (Y2 NC)	e nals eir n d od d nd of n e	everyday materials, including wood, metal, plastic, glass, bric rock, pape and cardboard for particular uses. What's It Made Of? (Y2 NC) Find out how the shapes of solid objects made from some materials can be changed b squashing bending, twisting ar stretching. What's It Made Of? (Y2 NC)	k, rr n yy , nd			
	Working	Scientifically A	ll Topic				<u>Plants</u>	Animals, including Humans	Living things and their environme nt	Evolution and inheritance	Everyd ay Materi als and Uses	States of Matter	Properties and changes of materials	Light	Forces and Magne ts
2	Asking simple question s and recognis ing that they can be answere d 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.	identify and name a variety of common wild and garden plants, including deciduous and evergreen trees Live and Let Live/ Green Fingers (Yr 1 NC Find out and describe how plants need water, light and a suitable temperatu re to grow	identify and name a variety of common animals including fish, amphibian s, reptiles, birds and mammals Live and Let Live (Yr 1 NC) identify and name a variety of common animals that are carnivores and omnivores	. Explore and compare the differences between things that are living, dead, and things that have never been alive. Live and Let Live (Y2 NC) 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		Identify and compare the suitabilit y of a variety of everyda y material s, includin g wood, metal, plastic, glass, brick, rock, paper and cardboa rd for particula r uses. The Magic Toymak				

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Forces and Magne	Sol	und	E	lectrici ty	Ea Se na Cr e	rth Sc aso I ang	ience Rocl	۲s	Ear Spa	th and ace		

Boothferry Primary	School Progression Map										-	1			
Working Scient		and stay healthy Live and Let Live / Green Fingers (Yr 2 NC) Observe and describe how seeds and bulbs grow into mature plants. Green Fingers (Yr 2 NC) identify and describe the basic structure of a variety of common flowering plants, including trees Green Fingers (Yr 1 NC)	Live and Let Live (Yr 1 NC) describe and compare the structure of a variety of common animals (fish, amphibian s, reptiles, birds and mammals including pets) Live and Let Live (Yr 1 NC) Notice that animals, including humans, have offspring which grow into adults. Live and Let Live (Yr 2 NC) Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). Live and Let Live (Yr 2 NC) Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). Live and Let Live (Yr 2 NC) Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). Live and Let Live (Yr 2 NC) identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense Look and Listen (Yr 1NC)	plants, and how they depend on each other. Live and Let Live (Y2 NC) Identify and name a variety of plants and animals in their habitats, including micro- habitats Live and Let Live (Y2 NC) 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. Live and Let Live (Y2 NC)	Evolution and	er - (Yr 2 NC) Find out how the shapes of solid objects made from some material s can be changed by squashi ng, bending, twisting and stretchin g. The Magic Toymak er - (Yr 2 NC)	States	Properties and	Forces	Sound	Electrici	Farth Sci			
			including Humans	things and their environme nt	inheritance	ay Materi als and Uses	of Matter	changes of materials	 and Magne ts		LISSING LY	Seaso nal Chang e	Rocks Ear	rth and ace	

#### **Boothferry Primary School Progression Map**

<u>Boo</u>	thferry Prir	nary School I	Progression Ma	<u>ap</u>										X
3	Asking relevant question s 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.	Id ar de th fu of pa fic pl ro st , l fic Le it Ex re nt pl if gr ig ww nn fr ar to ar th fr to Le it it pl if gr u gr ww nn fr ar to ar th fr to st it pl if fic pl if gr u gr ww nn fr to ar th fr fic pl if fic pl if fic pl if fic pl if fic pl if fic pl if fic pl if fic fic fic fic fic fic fic fic fic	lentify dentify describe he unctions f different arts of owering lants: bots, term/trunk leaves and owers. et's Plant (Y3 NC) wplore the equireme ts of lants for fe and rowth (air, ght, rater, utrients om soil, nd room bogrow) nd how hey vary om plant. et's Plant (Y3 NC) westigate he way in thich rater is ransporte within lants. et's Plant (Y3 NC) westigate he way in thich rater is ransporte within lants, et's Plant (Y3 NC) wering lants, touding ollination, eed ormation nd seed ispersal. et's Plant (Y3 NC)	Construct and interpret a variety of food chains, identifying producers, predators and prey. Let's Plant it/ Land Sea and Sky (Y4 NC)	Recognise that living things can be grouped in a variety of ways. Land Sea and Sky (Y4 NC) Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Land Sea and Sky (Y4 NC) Recognise that environments can change and that this can sometimes pose dangers to living things. Land Sea and Sky (Y4 NC)			Compar e how things move on different surfaces Feel the Force! (Y3 NC) Notice that some forces need contact between two objects, but magneti c forces can act at a distance Feel the Force! (Y3 NC) Observe how magnets attract or repel each other and attract some material s and not others. Feel the Force! (Y3 NC) Observe how magnets attract some material s and not others. Feel the Force! (Y3 NC) Compar e and group together a variety of everyda y material s on the basis of whether they are attracted to a magnet, and identify some magnets as	C e gtd k rtt b tt a n s p p s LSS N D ir tt h ft a ft w tt th h li tt w rt LSS N R s s n ft rt a o n LSS N	Compar e and roup ogether lifferent inds of ocks on ne asis of neir ppeara ace and imple hysical ropertie and sea and Sky (Y3 IC) Describe n simple erms ow obssils re oprmed when nings nat ave ved are rapped vithin ock. and Sea and Sky (Y3 IC) Describe n simple erms ow obssils re oprmed when nings nat ave ved are rapped vithin ock. and Sea and Sky (Y3 IC) Recogni e that oils are nade rom ocks ind organic natter. and Sea and Sky (Y3 IC) Recogni e that oils are nade rom ocks ind organic natter. and Sea and Sky (Y3 IC)	

<u>Booth</u>	ferry I	Primary	School Pro	ogressio	on Map																			
	Work	ting Scient	tifically All T	opic						Plants	Animals,		Evolution and	Everyd	States	Properties and	Light	having two poles. Feel the Force! (Y3 NC) Predict whether two magnets will attract or repel each other, dependi ng on which poles are facing. Feel the Force! (Y3 NC)	Sound	Electrici	Earth Sc	ience		
											Humans	their environme nt		ay Materi als and Uses	Matter	materials		Magne ts			Seaso nal Chang e	Rocks	Earth and Space	
4	Ask ing relevan t que stio ns and usi ang diff ere nt typ es of scie ntifi c enq uiri es to ans wer the m.	Setting up simple practical enquiries , comparat ive and fair tests.	Making systematic and careful observations and, where appropriate, taking accurate measuremen ts using standard units, using a range of equipment, including thermometer s and data loggers.	Gather ing, recordi ng, classif ying and presen ting data in a variety of ways to help in answe ring questi ons.	Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.	Reportin g on findings from enquiries , including oral and written explanati ons, displays or presenta tions of results and conclusi ons.	Using results to draw simple conclusions , make predictions for new values, suggest improveme nts and raise further questions.	Identifying difference s, similaritie s or changes related to simple scientific ideas and processes	Using straightforw ard scientific evidence to answer questions or to support their findings.		Describe the simple functions of the basic parts of the digestive system in humans. How Humans Work (Y3 NC) Identify the different types of teeth in humans and their simple functions. How Humans Work (Y3 NC) 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. How Humans and some other animals have skeletons and muscles for support, protection and				Compare and group materials together, according to whether they are solids, liquids or gases. Shake It (Y4 NC) 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) Shake It (Y4 NC) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature Shake It (Y4 NC)		Recogni se that they need light in order to see things and that dark is the absence of light. How Humans Work (Y3 NC) Notice that light is reflecte d from surfaces How Humans Work (Y3 NC) Recogni se that light from the sun can be dangero us and that there are ways to protect their eyes. How Humans Work (Y3 NC) Recogni se that there are ways to protect their eyes. How Humans Surfaces are surfaces are that there are surfaces and that there are surfaces and that there are surfaces are that there are surfaces and that there are surfaces and that there are surfaces and that there are surfaces and that there surfaces and that there surfaces and that there are surfaces are surfaces are surfaces are surfaces are surfaces and that there surfaces are surfaces are surfaces and that there surfaces are surfaces are surfaces are surfaces are surfaces are surfaces are that there surfaces are that there surfaces are that there surfaces are surfaces are that there surfaces are surfaces are surfaces are that there surfaces are surfaces are that there surfaces are are are are are are are are are are		Identify how sounds are made, associat ing some of them with somethi ng vibrating Turn it Up! (Y4 NC) Find patterns between that up! (Y4 NC) Find patterns between the object that patterns between the could find patterns between the could find patterns between the could find patterns between the could find patterns between the could find patterns between the could find patterns find find patterns find find find find find find find find	Identify common appliances that run on electricity. Bright Sparks/ Shake It (Y4 NC) Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. Bright Sparks (Y4 NC) Identify whether or not a lamp will light in a simple series circuit, based buztery. Bright Sparks (Y4 NC) Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp				

<u>Booth</u>	ferry Primary Sch	ool Progression Map																	
						movement. How Humans Work (Y3 NC)						formed when the light from a light source is blocked by a solid object. How Humans Work (Y3 NC) Find patterns in the way that the size of shadow s change. How Humans Work (Y3 NC)		volume of a sound and the strength of the vibration s that produce d it. Turn it Up! (Y4 NC) Recogni se that sounds get fainter as the distance from the sound source increase s. Turn it Up! (Y4 NC)	simple series circuit. Bright Sparks (Y4 NC) Recognise some common conductors and insulators, and associate metals with being good conductors. Bright Sparks (Y4 NC)				
	Working Scientifica	ally All Topic			<u>Plants</u>	Animals, including Humans	Living things and their environme nt	Evolution and inheritance	Everyd ay Materi als and Uses	States of Matter	Properties and changes of materials	Light	Forces and Magne ts	Sound	Electrici ty	Earth Sc Seaso nal Chang e	ience Rocks	Earth and Space	
5	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.			describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird Existing, Endangered, Extinct (Y6 NC describe the life process of reproduction in some plants and animals. Existing, Endangered, Extinct (Y6 NC Describe how living things are classified into broad groups according to common observable characteristi cs and based on similarities and differences, including micro- organisms, plants and animals. Existing, Endangered, Extinct (Y6 NC Describe how living things are classified into broad groups according to common observable characteristi cs and based on similarities and differences, including micro- organisms, plants and animals. Existing, Endangered, Extinct (Y6 NC				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 Bake It (Y5 NC) know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution Bake It (Y5 NC) use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating		explain that unsuppo rted objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object Fascinat ing Forces (Y5 NC) identify the effects of air resistan ce, water resistan ce and friction, that act between moving surfaces Fascinat ing Forces (Y5 NC)					describe the movement of the Earth, and other planets, relative to the Sun in the solar system Space Scientists (Y5 NC) describe the movement of the Moon relative to the Earth Space Scientists (Y5 NC) describe the Sun, Earth and Moon as approximat ely spherical bodies Space Scientists (Y5 NC) use the idea of the Earth's rotation to explain day and night and the apparent	

<u>Booth</u>	nferry Primary	y School Progra	ession Map																		X
									Give reasons for classifying plants and animals based on specific characteristi cs. Existing, Endangered, Extinct (Y6 NC)				Bake It (Y5 NC) give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic Bake It (Y5 NC) demonstrate that dissolving, mixing and changes of state are reversible changes Bake It (Y5 NC) 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. Bake It (Y5 NC)		recognis e that some mechani sms, includin g levers, pulleys and gears, allow a smaller force to have a greater effect. Fascinat ing Forces (Y5 NC)					movement of the sun across the sky Space Scientists (Y5 NC)	
	Working Scier	ntifically All Topic	c				Plants	Animals, including Humans	Living things and their environme nt	Evolution and inheritance	Everyd ay Materi als and Uses	States of Matter	Properties and changes of materials	Light	Forces and Magne ts	Sound	Electrici ty	Earth So Seaso nal Chang e	cience Rocks	Earth and Space	
6	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.		Describe the changes as humans develop to old age Being Human (Y6 NC) Identify and name the main parts of the human circulatory system, and describe the		Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents Being Human and Out of Africa (Y6 NC) Recognise that living things have changed over time and that fossils provide				Recog nise that light appea rs to travel in straigh t lines. Look Hear (Y6 NC) Use the idea that light travels			Associat e the brightne ss of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. Full Power (Y6 NC)				

				functions	information		in	
				of the	about living		straigh	
				heart,	things that		t lines	
				blood	inhabited the		to	
				vessels	Earth millions		explai	
				and blood.	of years ago.		n that	
				Being Human	(Y6 NC)		object s are	
				(Y6 NC)	Identify how		seen	
				Recognise	animals and		becau	
				the impact	plants are		se	
				of diet,	adapted to suit		they	
				exercise,	their		give	
				lifestyle on	different wave		out or	
				the way	and that		light	
				their	adaptation		into	
				bodies	may lead to		the	
				function.	evolution. Out		eye.	
				Being	of Africa (Y6		LOOK	
				(Y6 NC)	NC)		(Y6	
				Describe			NC)	
				the ways in			Explai	
				which			n that	
				nutrients			we	
				and water			See things	
				transported			becau	
				within			se	
				animals,			light	
				including			travels	
				humans.			from	
				Being			light	
				(Y6 NC)			s to	
				(10110)			our	
							eyes	
							or	
							from	
							light	
							s to	
							object	
							s and	
							then to	
							our	
							Look	
							Hear	
							(Y6	
							NC)	
							Use	
							idea	
							that	
							light	
							travels	
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Compar e and give reasons for variation s in how compon ents function, including the brightne ss of bulbs, the loudnes s of buzzers and the on/off position of switches Full Power (Y6 NC) Use recognis ed symbols when represen ting a simple circuit in а diagram. Full Power (Y6 NC)

							Look Hear
							NC)





# Intent

IPC units of study offer a coherently planned sequence of lessons to help teachers ensure they have progressively covered the skills and concepts required in the National Curriculum It is our intention in Science to develop in all young people a lifelong curiosity and interest in the sciences. Through our IPC units of work, we intend for children to have the opportunity, wherever possible, to learn through varied systematic investigations, leading to them being equipped for life to ask and answer scientific questions about the world around them. As children progress through the year groups, they build on their skills in working scientifically, as well as on their scientific knowledge, as they develop greater independence in planning and carrying out fair and comparative tests to answer a range of scientific questions. Our aim is that children learn and retain the important, useful and powerful scientific vocabulary - the development of this is shown through our science vocabulary progression document. Our carefully selected IPC units of works ensures that children have a varied, progressive and well-mapped-out science curriculum that provides the opportunity for progression across the full breadth of the science national curriculum for KS1 and KS2.

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# Implementation

The acquisition of key scientific knowledge is an integral part of our science lessons. The progression of skills for working scientifically are developed through the year groups and scientific enquiry skills are of key importance within lessons. The progression of these skills is set out in this progression of skills document and the progression of key scientific vocabulary is set out in the scientific vocabulary progression document. In accordance with the progression documents, scientific knowledge and enquiry skills are developed with increasing depth and challenge as children move through the year groups. They complete investigations and hands-on activities while gaining the scientific knowledge for each unit. Interwoven into the teaching sequence are opportunities for assessment rubrics (aimed at targeting next steps in learning). These allow teachers to assess children's levels of understanding at various points in the unit being studied. They also enable opportunities to recap concepts where necessary. The sequence of lessons helps to embed scientific knowledge and skills, with each lesson building on previous learning - The diagram to the right demonstrates our approach to teaching each unit and throughout this process and there also the opportunity to regularly review and evaluate children's understanding. Our IPC units of work include adult guidance to ensure that teachers are equipped with secure scientific subject knowledge, enabling them to deliver high-quality teaching and learning opportunities while making them aware of possible scientific misconceptions.

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# Impact

In Science, progress is measured through a child's ability to know more, remember more and explain more. This can be measured in different ways in our IPC units. The use of our IPC assessment rubrics ensures opportunities are built into each unit for ongoing assessment. Attainment and progress can be measured across the school using our end of year summative assessments and end of year subject reviews that will inform the following year's action plan.. The impact of using the full range of resources included in the science unit will also be seen across the school with an increase in the profile of Science. The learning environment across the school will be more consistent with science technical vocabulary displayed, spoken and used by all learners. Whole-school and parental engagement will be improved through the use of science-specific home learning tasks and end of unit exit points. Children who feel confident in their science knowledge and enquiry skills will be excited about science, show that they are actively curious to learn more and will see the relevance of what they learn in science lessons to real-life situations and also the importance of science in the real world.



