

Bampton CE Primary School



Science Scheme of Work

Year 1

Content	Outdoor Learning	Resource links (including Story Telling)	Working Scientifically (from Target Tracker statements)	Assessment Criteria (“I Can” statements for progression towards Year 2)
<p>Plants:</p> <ul style="list-style-type: none"> identify & name a variety of common wild and garden plants, including deciduous & evergreen trees identify & describe the basic structure of a variety of common flowering plants, including trees 	<ul style="list-style-type: none"> - Game: Seed Game (Spring) - School Grounds: Hug a Tree (Summer) - Wildlife Activity: Mosaic Flower (Summer) 	<p>Anna’s Apple Tree p.21</p>	<p>Identify & classify (Y1 focus)</p> <p>Ask simple questions & recognise that they can be answered in different ways (Y1 focus)</p> <p>Use simple equipment to observe closely (Y1 focus)</p> <p>Use his/her observations & ideas to suggest answers to questions (Y1 focus)</p>	<p>I can ask a few simple questions about the world around us.</p> <p>I can begin to use some different types of enquiry to answer questions.</p> <p>I can begin to perform simple tests.</p> <p>I can begin to discuss my ideas.</p> <p>I can begin to say what happened in an investigation.</p> <p>I can begin to collect simple data.</p>
<p>Animals, including humans:</p> <ul style="list-style-type: none"> identify & name a variety of common animals including fish, amphibians, reptiles, birds & mammals identify & name a variety of common animals that are carnivores, herbivores & omnivores describe & compare the structure of a variety of common animals (fish, amphibians, reptiles, birds & mammals, including pets) identify, name, draw & label the basic parts of the human body & say which part of the body is associated with each sense 	<ul style="list-style-type: none"> - Wildlife Activity: Looking for Spawn (Spring) - Game: Frog Life Cycle Relay (Spring) - Activity: Surviving Winter (Winter) 	<p>Going to catch a piggy-wig p.29</p>	<p>Identify & classify (Y1 focus)</p> <p>Ask simple questions & recognise that they can be answered in different ways (Y1 focus)</p>	<p>I can begin to record data in a table my teacher has provided.</p> <p>I can begin to communicate my findings in a variety of ways.</p> <p>I can begin to identify a variety of objects, materials and living things.</p> <p>I can begin to compare, sort and group a range of objects, materials and living things.</p>
<p>Everyday materials:</p> <ul style="list-style-type: none"> distinguish between an object & the material from which it is made identify & name a variety of everyday materials, including wood, plastic, glass, metal, water & rock describe the simple physical properties of a variety of everyday materials 			<p>Perform simple tests (Y1 focus)</p> <p>Use simple equipment to observe closely (Y1 focus)</p> <p>Use his/her observations & ideas to suggest answers to questions (Y1 focus)</p>	<p>I can begin to find information to help me from books, computers and other familiar sources.</p> <p>I can begin to talk about what I have found out.</p> <p>I can begin to explain how I carried out my enquiry.</p> <p>I can begin to suggest simple changes to my enquiry.</p> <p>I can begin to use simple scientific language.</p>

<ul style="list-style-type: none"> compare & group together a variety of everyday materials on the basis of their simple physical properties 			Gather & record data to help in answering questions (Y1 focus)	<p>I can begin to describe what I see, eg: something is long.</p> <p>I can begin to compare, eg: something is longer or shorter.</p> <p>I can say how science helps us in our daily lives.</p> <p>I can say how science can be dangerous, eg: electricity can give you a shock.</p>
<p>Seasonal changes:</p> <ul style="list-style-type: none"> observe changes across the 4 seasons observe & describe weather associated with the seasons & how day length varies 	<p>- Wildlife Activity: Tree Shapes (Autumn)</p>		<p>Use simple equipment to observe closely (Y1 focus)</p> <p>Use his/her observations & ideas to suggest answers to questions (Y1 focus)</p> <p>Gather & record data to help in answering questions (Y1 focus)</p>	

Year 2

Content	Outdoor Learning	Resource links	Working Scientifically (from Target Tracker statements)	Assessment Criteria ("I Can" statements for progression from Year 1)
<p>Living things & their habitats:</p> <ul style="list-style-type: none"> explore and compare the differences between things that are living, dead, and things that have never been alive identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other identify and name a variety of plants and animals in their habitats, including microhabitats 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>- School Grounds: Animal habitats in the School Grounds (Spring)</p> <p>- Wildlife Activity: Tree Beating (Summer)</p>	<p>Mummy, can I have a penguin? P.50</p>	<p>Identify, group & classify (Y2 focus)</p> <p>Use his/her observations & ideas to suggest answers to questions noticing similarities, differences & patterns (Y2 focus)</p> <p>Gather & record data to help in answering questions including from secondary sources of information (Y2 focus)</p>	<p>I can ask simple questions about the world around us.</p> <p>I can begin to use different types of enquiry to answer questions.</p> <p>I can observe changes over time.</p> <p>I can say what I am looking for and what I am measuring.</p> <p>I can measure with non-standard units and can begin to use simple standard units, eg: mm, cm, m, ml, l, °C .</p> <p>I can use simple equipment, eg: hand lenses, egg timers.</p>
<p>Plants:</p> <ul style="list-style-type: none"> observe & describe how seeds & bulbs grow into mature plants find out & describe how plants need water, 	<p>Game: Seed Game (Spring)</p>		<p>Ask simple questions & recognise that they can be answered in different ways including use of scientific</p>	<p>I am beginning to notice patterns.</p>

<p>light & a suitable temperature to grow and stay healthy</p>	<p>School Grounds: Record Trees (Summer)</p> <p>Game: Leaf Bingo (Autumn)</p>		<p>language from the national curriculum (Y2 focus)</p> <p>Use simple equipment to observe closely, including changes over time (Y2 focus)</p> <p>Perform simple comparative tests (Y2 focus)</p>	<p>I can perform simple tests.</p> <p>I can discuss my ideas.</p> <p>I can say what happened in an investigation.</p> <p>I can collect simple data.</p> <p>I can record data in a table my teacher has provided.</p>
<p>Animals, including humans:</p> <ul style="list-style-type: none"> notice that animals, including humans, have offspring which grow into adults find out about & describe the basic needs of animals, including humans, for survival (water, food & air) describe the importance for humans of exercise, eating the right amounts of different types of food, & hygiene 	<p>- Wildlife Activity: Looking for Spawn (Spring)</p>	<p>Uncle Jackp.37</p>	<p>Use his/her observations & ideas to suggest answers to questions noticing similarities, differences & patterns (Y2 focus)</p> <p>Gather & record data to help in answering questions including from secondary sources of information (Y2 focus)</p>	<p>I can communicate my findings in a variety of ways.</p> <p>I can identify a variety of objects, materials and living things.</p> <p>I can compare, sort and group a range of objects, materials and living things.</p> <p>I can find information to help me from books, computers and other familiar sources.</p>
<p>Uses of everyday materials:</p> <ul style="list-style-type: none"> identify & compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper & cardboard for particular uses find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting & stretching 		<p>p.94 The Fairy Godmother's Day off</p>	<p>Identify, group & classify (Y2 focus)</p> <p>Ask simple questions & recognise that they can be answered in different ways including use of scientific language from the national curriculum (Y2 focus)</p> <p>Use simple equipment to observe closely, including changes over time (Y2 focus)</p> <p>Perform simple comparative tests (Y2 focus)</p>	<p>I can talk about what I have found out.</p> <p>I can explain how I carried out my enquiry.</p> <p>I can suggest simple changes to my enquiry.</p> <p>I can use simple scientific language.</p> <p>I can describe what I see.</p> <p>I can compare, eg: something is longer or shorter.</p> <p>I can say how science helps us in our daily lives.</p> <p>I can say how science can be dangerous, eg: electricity can give you a shock.</p>

Year 3

Content	Outdoor Learning	Resource links	Working Scientifically	Assessment Criteria (“I Can” statements for progression towards Year 4)
<p>Plants:</p> <ul style="list-style-type: none"> identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant investigate the way in which water is transported within plants explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal 	<p>Wildlife Activity: Tree Bud ID (Winter)</p> <p>Wildlife Activity: Measuring Trees: Height (Summer)</p>	<p>p.82 Jack and the Giant’s peach or Emily’s Bees</p>	<p>Ask relevant questions & use different types of scientific enquiries to answer them (Y3 focus)</p> <p>Set up simple practical enquiries, comparative and fair tests (Y3 focus)</p> <p>Make systematic & careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers (Y3 focus)</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts & tables (Y3 focus)</p>	<p>I can ask some relevant questions about the world around us.</p> <p>I can use some different types of scientific enquiry to answer questions.</p> <p>I am beginning to decide which type of enquiry is best to answer my question.</p> <p>I can make systematic and careful observations.</p> <p>I can decide what to observe and how long to collect observations. I can take accurate measurements using standard units, eg: mm, cm, m, ml, l, °C, seconds, minutes.</p> <p>I can decide which equipment to use and can use new equipment, eg: data loggers.</p> <p>I can look for patterns and relationships.</p> <p>I can set up some simple practical enquiries. Including comparative and fair tests.</p>
<p>Animals, including humans:</p> <ul style="list-style-type: none"> identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat identify that humans and some other animals have skeletons and muscles for support, protection and movement 	<p>Game: Nut Dispersal (Autumn)</p> <p>Wildlife Activity: Surviving Winter (Winter)</p>		<p>Identify differences, similarities or changes related to simple scientific ideas & processes (Y3 focus)</p> <p>Use straightforward scientific evidence to answer questions or to support his/her findings (Y3 focus)</p> <p>Report on findings from enquiries, including oral & written explanations, displays or presentations of results & conclusions (Y3 focus)</p>	<p>I am beginning to help decide which variables to keep the same and which to change.</p> <p>I am beginning to collect data in a variety of ways, including labelled diagrams, bar charts and tables.</p> <p>I am beginning to help decide how to record data.</p> <p>I am beginning to communicate findings using simple scientific language.</p> <p>I am beginning to talk about and identify differences and similarities in the properties or behaviour of living things, materials and other</p>

<p>Rocks:</p> <ul style="list-style-type: none"> compare and group together different kinds of rocks on the basis of their appearance and simple physical properties describe in simple terms how fossils are formed when things that have lived are trapped within rock recognise that soils are made from rocks and organic matter 		<p>P.107 The Fossil Woman</p>	<p>Identify differences, similarities or changes related to simple scientific ideas & processes (Y3 focus)</p> <p>Gather, record, classify & present data in a variety of ways to help with answering questions (Y3 focus)</p> <p>Report on findings from enquiries, including oral & written explanations, displays or presentations of results & conclusions (Y3 focus)</p>	<p>scientific phenomena.</p> <p>I am beginning to identify simple changes related to simple scientific phenomena.</p> <p>I am beginning to discuss criteria for grouping and sorting and can classify using simple keys.</p> <p>I can begin to decide when research will help in my enquiry.</p> <p>I am beginning to carry out simple research on my own.</p> <p>I am beginning to draw simple conclusions based on the results of my enquiry.</p>
<p>Light:</p> <ul style="list-style-type: none"> recognise that they need light in order to see things and that dark is the absence of light notice that light is reflected from surfaces recognise that light from the sun can be dangerous and that there are ways to protect their eyes recognise that shadows are formed when the light from a light source is blocked by an opaque object find patterns in the way that the size of shadows change 		<p>P.149 The East and West</p> <p>P.187 The Torch</p>	<p>Ask relevant questions & use different types of scientific enquiries to answer them (Y3 focus)</p> <p>Set up simple practical enquiries, comparative and fair tests (Y3 focus)</p> <p>Make systematic & careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers (Y3 focus)</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts & tables (Y3 focus)</p> <p>Use results to draw simple conclusions, make predictions for new values,</p>	<p>I am beginning to answer my questions using the results of my enquiry.</p> <p>I am beginning to use my findings to make new predictions, suggest improvements and think of new questions.</p> <p>I am beginning sometimes to think of cause and effect in my explanations.</p> <p>I am beginning to use some scientific language in my work.</p> <p>I am beginning to describe my observations and my findings.</p> <p>I am beginning to use comparative and superlative descriptions, eg: longer / shorter than, longest / shortest.</p> <p>I can begin to describe cause and effect.</p> <p>I am beginning to know which things in science have made our lives better, eg: computers in schools, hospitals, etc.</p>

			suggest improvements & raise further questions (Y3 focus)	I can begin to understand risk in science.
Forces and magnets: <ul style="list-style-type: none"> compare how things move on different surfaces notice that some forces need contact between 2 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 2 poles predict whether 2 magnets will attract or repel each other, depending on which poles are facing 		P.179 The Magic Stone	Set up simple practical enquiries, comparative and fair tests (Y3 focus) Make systematic & careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers (Y3 focus) Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts & tables (Y3 focus) Use results to draw simple conclusions, make predictions for new values, suggest improvements & raise further questions (Y3 focus)	

Year 4

Content	Outdoor Learning	Resource links	Working Scientifically	Assessment Criteria (“I Can” statements for progression from Year 3)
Living things and their habitats: <ul style="list-style-type: none"> recognise that living things can be grouped in a variety of ways explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment recognise that environments can change and that this can sometimes pose dangers to living things 	Wildlife Activity: Tree Beating (Summer) School Grounds: Animal Habitats in the School Grounds		Identify differences, similarities or changes related to simple scientific ideas & processes (Y4 focus) Use straightforward scientific evidence to answer questions or to support his/her findings (Y4 focus)	I can ask relevant questions about the world around us. I can use different types of scientific enquiry to answer questions. I am beginning to decide which type of enquiry is best to answer my question.

	(Spring)		<p>Report on findings from enquiries, including oral & written explanations, displays or presentations of results & conclusions (Y4 focus)</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts & tables (Y4 focus)</p> <p>Gather, record, classify & present data in a variety of ways to help with answering questions (Y4 focus)</p>	<p>I can make systematic and careful observations.</p> <p>I can decide what to observe and how long to collect observations.</p> <p>I can take accurate measurements using standard units, eg: mm, cm, m, ml, l, °C, seconds, minutes.</p> <p>I can decide which equipment to use and can use new equipment, eg: data loggers.</p> <p>I can look for patterns and relationships.</p> <p>I can set up simple practical enquiries, including comparative and fair tests.</p> <p>I can help decide which variables to keep the same and which to change.</p> <p>I can collect data in a variety of ways, including labelled diagrams, bar charts and tables.</p> <p>I can help decide how to record data.</p>
<p>Animals, including humans:</p> <ul style="list-style-type: none"> describe the simple functions of the basic parts of the digestive system in humans identify the different types of teeth in humans and their simple functions construct and interpret a variety of food chains, identifying producers, predators and prey 	Game: Habitats (Winter)	The drop of Honey/The Bird and the Forest fireP.57	<p>Identify differences, similarities or changes related to simple scientific ideas & processes (Y4 focus)</p> <p>Gather, record, classify & present data in a variety of ways to help with answering questions (Y4 focus)</p> <p>Report on findings from enquiries, including oral & written explanations, displays or presentations of results & conclusions (Y4 focus)</p>	<p>I can communicate findings using simple scientific language.</p> <p>I can talk about and identify differences and similarities in the properties or behaviour of living things, materials and other scientific phenomena.</p> <p>I can identify simple changes related to simple scientific phenomena.</p> <p>I can discuss criteria for grouping and sorting and can classify using simple keys.</p> <p>I can begin to decide when research will help in my enquiry.</p> <p>I can carry out simple research on my own.</p>

<p>Electricity:</p> <ul style="list-style-type: none"> • identify common appliances that run on electricity • construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers • identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery • recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit • recognise some common conductors and insulators, and associate metals with being good conductors 		<p>P.197 The Lighthouse Keeper's Son</p>	<p>Ask relevant questions & use different types of scientific enquiries to answer them (Y4 focus)</p> <p>Set up simple practical enquiries, comparative and fair tests (Y4 focus)</p> <p>Make systematic & careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers (Y4 focus)</p> <p>Use straightforward scientific evidence to answer questions or to support his/her findings (Y4 focus)</p>	
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Year 5

Content	Outdoor Learning	Resource links	Working Scientifically	Assessment Criteria ("I Can" statements for progression towards Year 6)
<p>Living things and their habitats:</p> <ul style="list-style-type: none"> • describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird • describe the life process of reproduction in some plants and animals 	<p>Wildlife Activity: Looking for Spawn (Spring)</p>		<p>Report & present findings from enquiries, including conclusions, causal relationships & explanations of & degrees of trust in results, in oral & written forms such as displays & other presentations (Y5 focus)</p> <p>Identify scientific evidence that has been used to</p>	<p>I am beginning to explore ideas and ask my own questions about scientific phenomena.</p> <p>I am beginning to plan different types of scientific enquiry to answer questions.</p> <p>I am beginning to decide which variables to control.</p> <p>I can make accurate and precise measurements.</p> <p>I can decide what to observe, how long to observe for and whether to repeat them.</p>

			support or refute ideas or arguments (Y5 focus)	<p>I can take accurate and precise measurements using standard units N, g, kg, mm, cm, mins, seconds, cm², km/h, m per sec, m/sec.</p> <p>I can select equipment on my own and can explain how to use it accurately.</p> <p>I can sometimes set up a range of comparative and fair tests.</p> <p>I am beginning to explain which variables need to be controlled and why.</p> <p>I am beginning to suggest improvements to my test, giving reasons.</p> <p>I am beginning to record data and results of increasing complexity using – scientific diagrams and labels, classification keys, tables, bar graphs, line graphs.</p> <p>I am beginning to choose how best to present data. I am beginning to communicate findings using detailed scientific language.</p> <p>I am beginning to use keys and other information records to classify and describe living things, materials and other scientific phenomena.</p> <p>I am beginning to develop my own keys and other information records to classify and describe.</p> <p>I am beginning to identify changes related to scientific phenomena.</p> <p>I am beginning to recognise which secondary source will be most useful to my research.</p> <p>I can begin to carry out research independently.</p> <p>I am beginning to draw scientific, causal</p>
<p>Animals, including humans:</p> <ul style="list-style-type: none"> describe the changes as humans develop to old age 			<p>Report & present findings from enquiries, including conclusions, causal relationships & explanations of & degrees of trust in results, in oral & written forms such as displays & other presentations (Y5 focus)</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments (Y5 focus)</p>	
<p>Properties and changes of materials:</p> <ul style="list-style-type: none"> compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic demonstrate that dissolving, mixing and changes of state are reversible changes explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda 		<p>P.135 Nimblefingers</p> <p>P.115 The Horses of Troy</p>	<p>Plan different types of scientific enquiries to answer questions, including recognising & controlling variables where necessary (Y5 focus)</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy & precision, taking repeat readings when appropriate (Y5 focus)</p> <p>Record data & results of increasing complexity, using scientific diagrams & labels, classification keys, tables, scatter graphs, bar & line graphs (Y5 focus)</p> <p>Use test results to make predictions to set up further comparative & fair tests (Y5 focus)</p>	

<p>Earth and space:</p> <ul style="list-style-type: none"> describe the movement of the Earth and other planets relative to the sun in the solar system describe the movement of the moon relative to the Earth describe the sun, Earth and moon as approximately spherical bodies use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky 			<p>focus)</p> <p>Report & present findings from enquiries, including conclusions, causal relationships & explanations of & degrees of trust in results, in oral & written forms such as displays & other presentations (Y5 focus)</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments (Y5 focus)</p>	<p>conclusions using the results of an enquiry to justify my ideas.</p> <p>I am beginning to explain my conclusion using scientific knowledge and understanding.</p> <p>I am beginning to distinguish opinion and facts.</p> <p>I am beginning to use my findings to make predictions and set up further enquiries.</p> <p>I can begin to use abstract models to explain my ideas.</p> <p>I am beginning to read, spell and pronounce scientific vocabulary correctly.</p>
<p>Forces:</p> <ul style="list-style-type: none"> explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object identify the effects of air resistance, water resistance and friction, that act between moving surfaces recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect 			<p>Plan different types of scientific enquiries to answer questions, including recognising & controlling variables where necessary (Y5 focus)</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy & precision, taking repeat readings when appropriate (Y5 focus)</p> <p>Record data & results of increasing complexity, using scientific diagrams & labels, classification keys, tables, scatter graphs, bar & line graphs (Y5 focus)</p> <p>Use test results to make predictions to set up further comparative & fair tests (Y5 focus)</p>	<p>I am beginning to confidently use the correct scientific language when appropriate.</p> <p>I am beginning to explain my ideas with scientific reasons.</p> <p>I am beginning to use scientific conventions, eg: trends, rogue result, support prediction.</p> <p>I am beginning to see how science is useful in lots of different ways.</p> <p>I am beginning to say which parts of our lives rely on science.</p> <p>I am beginning to explain the positive and negative effects of scientific developments.</p>

Year 6

Content	Outdoor Learning	Resource links	Working Scientifically	Assessment Criteria ("I Can" statements for progression from Year 5)
<p>Living things and their habitats:</p> <ul style="list-style-type: none"> describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals give reasons for classifying plants and animals based on specific characteristics 	<p>School Grounds: Animal Habitats in the School Grounds (Spring)</p> <p>Wildlife Activity: Tree Beating (Summer)</p>		<p>Report & present findings from enquiries, including conclusions, causal relationships & explanations of & degrees of trust in results, in oral & written forms such as displays & other presentations (Y6 focus)</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments (Y6 focus)</p> <p>Group & classify things & recognise patterns</p> <p>Find things out using a wide range of secondary sources of information</p>	<p>I can explore ideas and ask my own questions about scientific phenomena.</p> <p>I can plan different types of scientific enquiry to answer questions.</p> <p>I can decide which variables to control.</p> <p>I can make accurate and precise measurements.</p> <p>I can decide what to observe, how long to observe for and whether to repeat them.</p> <p>I can take accurate and precise measurements using standard units: N, g, kg, mm, cm, mins, seconds, cm², km/h, m per sec, m/sec.</p> <p>I can select equipment on my own and can explain how to use it accurately.</p>
<p>Animals including humans:</p> <ul style="list-style-type: none"> identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function describe the ways in which nutrients and water are transported within animals, including humans 		<p>p.71 The story of Edward Jenner/The Broad Street Pump</p>	<p>Report & present findings from enquiries, including conclusions, causal relationships & explanations of & degrees of trust in results, in oral & written forms such as displays & other presentations (Y6 focus)</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments (Y6 focus)</p> <p>Find things out using a wide range of secondary sources</p>	<p>I can set up a range of comparative and fair tests.</p> <p>I can explain which variables need to be controlled and why.</p> <p>I can suggest improvements to my test, giving reasons.</p> <p>I can record data and results of increasing complexity using – scientific diagrams and labels classification keys tables bar graphs line graphs</p> <p>I can choose how best to present data.</p> <p>I can communicate findings using detailed scientific language.</p>

<p>Evolution and inheritance:</p> <ul style="list-style-type: none"> recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution 			<p>of information</p> <p>Report & present findings from enquiries, including conclusions, causal relationships & explanations of & degrees of trust in results, in oral & written forms such as displays & other presentations (Y6 focus)</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments (Y6 focus)</p> <p>Describe & evaluate their own & other people's scientific ideas related to topics in the NC (including ideas that have changed over time), using evidence from a range of sources</p> <p>Group & classify things & recognise patterns</p>	<p>I can use keys and other information records to classify and describe living things, materials and other scientific phenomena.</p> <p>I can develop my own keys and other information records to classify and describe.</p> <p>I can identify changes related to scientific phenomena.</p> <p>I can recognise which secondary source will be most useful to my research.</p> <p>I can carry out research independently.</p> <p>I can draw scientific, causal conclusions using the results of an enquiry to justify my ideas.</p> <p>I can explain my conclusion using scientific knowledge and understanding.</p> <p>I can distinguish opinion and facts.</p> <p>I can use my findings to make predictions and set up further enquiries</p>
<p>Light:</p> <ul style="list-style-type: none"> recognise that light appears to travel in straight lines use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye 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>Plan different types of scientific enquiries to answer questions, including recognising & controlling variables where necessary (Y6 focus)</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy & precision, taking repeat readings when appropriate (Y6 focus)</p> <p>Record data & results of</p>	<p>I can begin to use abstract models to explain my ideas.</p> <p>I can read, spell and pronounce scientific vocabulary correctly.</p> <p>I can confidently use the correct scientific language when appropriate.</p> <p>I can explain my ideas with scientific reasons.</p> <p>I can use scientific conventions, eg: trends, rogue result, support prediction.</p> <p>I can see how science is useful in lots of different ways.</p>

			<p>increasing complexity, using scientific diagrams & labels, classification keys, tables, scatter graphs, bar & line graphs (Y6 focus)</p> <p>Use test results to make predictions to set up further comparative & fair tests (Y6 focus)</p> <p>Use appropriate scientific language & ideas from the NC to explain, evaluate & communicate his/her methods & findings</p>	<p>I can say which parts of our lives rely on science.</p> <p>I can explain the positive and negative effects of scientific developments</p>
<p>Electricity:</p> <ul style="list-style-type: none"> • associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit • compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches • use recognised symbols when representing a simple circuit in a diagram 		<p>P.221 The Rocket</p>	<p>Plan different types of scientific enquiries to answer questions, including recognising & controlling variables where necessary (Y6 focus)</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy & precision, taking repeat readings when appropriate (Y6 focus)</p> <p>Record data & results of increasing complexity, using scientific diagrams & labels, classification keys, tables, scatter graphs, bar & line graphs (Y6 focus)</p> <p>Use test results to make predictions to set up further</p>	

			<p>comparative & fair tests (Y6 focus)</p> <p>Describe & evaluate their own & other people's scientific ideas related to topics in the NC (including ideas that have changed over time), using evidence from a range of sources</p> <p>Use appropriate scientific language & ideas from the NC to explain, evaluate & communicate his/her methods & findings</p>	
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The NC Science programmes of study (statutory and non-statutory) are to be used for further guidance for teaching in each year group.