

Palfrey Junior School Science Curriculum Mapping

Palfrey Junior School follows the National Curriculum Science programme of study through the Focus Education Learning Challenge curriculum.

National Curriculum Progression in Science: Working Scientifically

	National Curriculum-Year 3/ 4 programme of study	Year 3 Palfrey Junior	Year 4 Palfrey Junior	National Curriculum-Year 5 /6 programme of study	Year 5 Palfrey Junior	Year 6 Palfrey Junior
Asking questions and planning	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>ask relevant questions and use different types of scientific enquiries to answer them</i> • <i>set up simple practical enquiries, comparative and fair tests</i> 	<p>Can they use different ideas and suggest how to find something out?</p> <ul style="list-style-type: none"> • Can they make and record a prediction before testing? • Can they plan a fair test and explain why it was fair? • Can they set up a simple fair test to make comparisons? • Can they explain why they need to 	<p>Can they set up a simple fair test to make comparisons?</p> <ul style="list-style-type: none"> • Can they plan a fair test and isolate variables and explain why it was fair and explain which variables have been isolated? • Can they suggest improvements and predictions? • Can they decide which information 	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</i> 	<p>Can they plan and carry out an investigation by controlling variables fairly and accurately?</p> <ul style="list-style-type: none"> • Can they make a prediction with reasons? • Can they use test results to make further predictions and set up further comparative tests? • Can they present a report of their findings 	<p>Can they explore different ways to test an idea and choose the best way, and give reasons?</p> <ul style="list-style-type: none"> • Can they vary one factor whilst keeping the others the same in an experiment? Can they explain why they do this? • Can they plan and carry out an investigation by controlling

		<p>collect information to answer a question?</p> <p>.</p>	<p>needs to be collected and decide which is the best way for collecting it?</p> <ul style="list-style-type: none"> •Can they use their findings to draw a simple conclusion? <p>Can they plan and carry out an investigation by controlling variables fairly and accurately?</p> <ul style="list-style-type: none"> •Can they use test results to make further predictions and set up further comparative tests? 		<p>through writing, display and presentation</p> <p>Can they explore different ways to test an idea and choose the best way, and give reasons?</p> <ul style="list-style-type: none"> •Can they vary one factor whilst keeping the others the same in an experiment? •Can they use information to help make a prediction? •Can they explain (in simple terms) a scientific idea and what evidence supports it? 	<p>variables fairly and accurately?</p> <ul style="list-style-type: none"> •Can they make a prediction with reasons? •Can they use information to help make a prediction? •Can they use test results to make further predictions and set up further comparative tests? •Can they explain (in simple terms) a scientific idea and what evidence supports it? •Can they present a report of their findings through writing, display and presentation? <p>Can they choose the best way to</p>
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						<p>answer a question?</p> <ul style="list-style-type: none">•Can they use information from different sources to answer a question and plan an investigation?•Can they make a prediction which links with other scientific knowledge?•Can they identify the key factors when planning a fair test?•Can they explain how a scientist has used their scientific understanding plus good ideas to have a breakthrough?
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<p>Measuring, recording and presenting evidence</p>	<p><i>National Curriculum-Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</i> • <i>record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</i> • <i>gather, record, classify and</i> 	<ul style="list-style-type: none"> • Can they measure using different equipment and units of measure? • Can they record their observations in different ways? (labelled diagrams, charts etc) • Can they describe what they have found using scientific words? • Can they make accurate measurements using standard units? • Can they explain their findings in different ways (display, 	<ul style="list-style-type: none"> • Can they take measurements using different equipment and units of measure and record what they have found in a range of ways? • Can they make accurate measurements using standard units? • Can they explain their findings in different ways (display, presentation, writing)? • Can they record more complex data and results using scientific diagrams, classification keys, tables, bar charts, line graphs and models? 	<p><i>National Curriculum-Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</i> • <i>record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</i> 	<p>Can they take measurements using a range of scientific equipment with increasing accuracy and precision?</p> <ul style="list-style-type: none"> • Can they record more complex data and results using scientific diagrams, classification keys, tables, bar charts, line graphs and models? <p>Can they decide which units of measurement they need to use?</p> <ul style="list-style-type: none"> • Can they explain why a measurement needs to be repeated? 	<p>Can they explain why they have chosen specific equipment? (incl ICT based equipment)</p> <ul style="list-style-type: none"> • Can they decide which units of measurement they need to use? • Can they explain why a measurement needs to be repeated? • Can they record their measurements in different ways? (incl bar charts, tables and line graphs) • Can they take measurements using a range of scientific equipment with increasing accuracy and precision?
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	<i>present data in a variety of ways to help in answering questions</i>	presentation, writing)? •Can they use their findings to draw a simple conclusion? •Can they suggest improvements and predictions for further tests?				.Can they plan in advance which equipment they will need and use it well? •Can they make precise measurements? •Can they collect information in different ways? •Can they record their measurements and observations systematically? •Can they explain qualitative and quantitative data?
Considering evidence and evaluating	<i>National Curriculum-Pupils should be taught to:</i> • <i>identify differences, similarities or changes related to simple</i>	.Can they record and present what they have found using scientific language, drawings, labelled	Can they find any patterns in their evidence or measurements? •Can they make a prediction based on something they have found out?	<i>National Curriculum-Pupils should be taught to:</i> • <i>identify scientific evidence that has been used to support</i>	Can they report findings from investigations through written explanations and conclusions? •Can they use a graph to answer	Can they find a pattern from their data and explain what it shows? •Can they use a graph to answer scientific questions?

	<p><i>scientific ideas and processes</i></p> <ul style="list-style-type: none"> • <i>report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</i> • <i>use straightforward scientific evidence to answer questions or to support their findings</i> • <i>use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</i> 	<p>diagrams, bar charts and tables?</p> <p>.Can they explain what they have found out and use their measurements to say whether it helps to answer their question?</p> <ul style="list-style-type: none"> •Can they use a range of equipment (including a data-logger) in a simple test? <p>Can they suggest how to improve their work if they did it again?</p>	<ul style="list-style-type: none"> •Can they record and present what they have found using scientific language, drawings, labelled diagrams, bar charts and tables? <p>.Can they report findings from investigations through written explanations and conclusions?</p> <ul style="list-style-type: none"> •Can they use a graph or diagram to answer scientific questions? 	<p><i>or refute ideas or arguments</i></p> <ul style="list-style-type: none"> • <i>report and present 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</i> • <i>use test results to make predictions to set up further comparative and fair tests</i> 	<p>scientific questions?</p> <p>Can they find a pattern from their data and explain what it shows?</p> <ul style="list-style-type: none"> •Can they link what they have found out to other science? •Can they suggest how to improve their work and say why they think this? 	<ul style="list-style-type: none"> •Can they link what they have found out to other science? •Can they suggest how to improve their work and say why they think this? •Can they record more complex data and results using scientific diagrams, classification keys, tables, bar charts, line graphs and models? •Can they report findings from investigations through written explanations and conclusions? <p>Can they draw conclusions from their work?</p>
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Year 3 Curriculum Mapping- Science

Year 3 NC Area	Year 3 NC Programme of Study	Palfrey Year 3 Programme of Study
Plants	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</i> • <i>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</i> • <i>investigate the way in which water is transported within plants</i> • <i>explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal</i> 	<p>Topic: How did that Blossom become an apple?</p> <ul style="list-style-type: none"> • Can they identify and describe the functions of different parts of plants? (roots, stem, leaves and flowers) • Can they identify what a plants needs for life and growth? • Can they describe the ways in which nutrients, water and oxygen are transported within plants? • Can they explain how the needs and functions of plant parts vary from plant to plant e.g. insect and wind pollinated plants? • Can they investigate the way in which water is transported within plants? • Can they classify a range of common according to many criteria (environment found, size, climate required, etc.)? • Can they explore the role of flowers in the life cycle of flowering plants. Including pollination, seed formation and speed dispersal?

Year 3 NC Area	Year 3 NC Programme of Study	Palfrey Year 3 Programme of Study
Animals, including Humans	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>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</i> • <i>identify that humans and some other animals have skeletons and muscles for support, protection and movement</i> 	<p>How can Usain Bolt Move So quickly?</p> <ul style="list-style-type: none"> • Can they explain the importance of a nutritious balanced diet? • Can they describe how nutrients, water and oxygen are transported within animals and humans? • Can they describe and explain the skeletal system of a human? • Can they describe and explain the muscular system of a human?
Rocks	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</i> • <i>describe in simple terms how fossils are formed when things that have lived are trapped within rock</i> • <i>recognise that soils are made from rocks and organic matter</i> 	<p>Topic: What Do Rocks Tell us About how the Earth was Formed?</p> <ul style="list-style-type: none"> • Can they compare and group together different rocks based on their simple physical properties? • Can they describe and explain how different rocks can be useful to us? • Can they describe and explain the differences between sedimentary and igneous rocks, considering the way they are formed? • Can they describe how fossils are formed within sedimentary rock? • Can they classify igneous and sedimentary rocks? • Can they begin to relate the properties of rocks with their uses?

Year 3 NC Area	Year 3 NC Programme of Study	Palfrey Year 3 Programme of Study
Light	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>recognise that they need light in order to see things and that dark is the absence of light</i> • <i>notice that light is reflected from surfaces</i> • <i>recognise that light from the sun can be dangerous and that there are ways to protect their eyes</i> • <i>recognise that shadows are formed when the light from a light source is blocked by an opaque object</i> • <i>find patterns in the way that the size of shadows change</i> 	<p>Topic How Far Can You Throw Your Shadow?</p> <ul style="list-style-type: none"> • Can they explain the difference between transparent, translucent and opaque? • Can they explain why we need light to see things and how it reflected from surfaces? • Can they explain the relationship between the sun and moon? • Can they explain how shadows are formed and why they change position and size?
Forces and Magnets	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>Compare how things move on different surfaces</i> • <i>notice that some forces need contact between 2 objects, but magnetic forces can act at a distance</i> • <i>observe how magnets attract or repel each other and attract some materials and not others</i> • <i>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</i> • <i>describe magnets as having 2 poles</i> 	<p>Topic: Are You Attractive Enough?</p> <ul style="list-style-type: none"> • Can they understand that magnets have poles? • Can they observe that magnetic forces can be transmitted without direct contact? • Can they predict and talk about how some magnets attract or repel each other? • Can they classify which materials are attracted to magnets? • Can they describe other forces and how things move on different surfaces?

	<ul style="list-style-type: none">• <i>predict whether 2 magnets will attract or repel each other, depending on which poles are facing</i>	
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Year 4 Science Curriculum Mapping

Y4 NC Area	Y4 NC Programme of Study	PJS Programme of Study
<i>Living Things and Their Habitats</i>	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>recognise that living things can be grouped in a variety of ways</i> • <i>explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment</i> • <i>recognise that environments can change and that this can sometimes pose dangers to living things</i> 	<p>Topic: Which Plants and Animals Thrive in Your Locality?</p> <ul style="list-style-type: none"> • Can they use a classification key to group a variety of living things? (plants, vertebrates, invertebrates) • Can they compare the classification of common plants and animals to living things found in other places? (under the sea, prehistoric) • Can they name and group a variety of living things based on feeding patterns? (producer, consumer, predator, prey, herbivore, carnivore, omnivore) • Do they recognise that environments can change and this can sometimes pose a danger to living things?
<i>Animals, Including Humans</i>	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>describe the simple functions of the basic parts of the digestive system in humans</i> • <i>identify the different types of teeth in humans and their simple functions</i> • <i>construct and interpret a variety of food chains, identifying producers, predators and prey</i> 	<p>Topic: What Happens to the Food we Eat?</p> <ul style="list-style-type: none"> • Can they identify and name the basic parts of the human digestive system? • Can they describe the function of the organs of the human digestive system? • Can they identify the simple function of different types of human teeth? • Can they compare the teeth of herbivores and carnivores?

		<ul style="list-style-type: none"> • Can they explain what a simple food chain shows?
States of Matter	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>compare and group materials together, according to whether they are solids, liquids or gases</i> • <i>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)</i> • <i>identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</i> 	<p>Topic: How Would We Survive Without Water?</p> <ul style="list-style-type: none"> • Can they compare and group materials based on their states of matter, ie, liquid, solid or gas? • Can they explain what happens to materials when they are heated or cooled? • Can they measure the temperature at which different materials change state? • Can they use measurements to explain changes to the state of water?
Sound	<p><i>Pupils should be taught to</i></p> <ul style="list-style-type: none"> • <i>identify how sounds are made, associating some of them with something vibrating</i> • <i>recognise that vibrations from sounds travel through a medium to the ear</i> • <i>find patterns between the pitch of a sound and features of the object that produced it</i> • <i>find patterns between the volume of a sound and the strength of the vibrations that produced it</i> 	<p>Topic: Why is the Sound That Little Mix Makes Enjoyed by So Many?</p> <ul style="list-style-type: none"> • Can they describe a range of sounds and explain how they are made? • Can they compare sources of sound and explain how the sounds differ? • Can they explain how to change a sound (louder/softer)? • Can they describe and explain how a sound travels from a source to our ears? • Can they explain what happens to sound as it travels away from its source?

	<ul style="list-style-type: none"> • <i>recognise that sounds get fainter as the distance from the sound source increases</i> 	<ul style="list-style-type: none"> • Can they explain how you could change the pitch of a sound?
Electricity	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>identify common appliances that run on electricity</i> • <i>construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</i> • <i>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</i> • <i>recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</i> • <i>recognise some common conductors and insulators, and associate metals with being good conductors</i> 	<p>Topic: How Could We Cope Without Electricity for One day?</p> <ul style="list-style-type: none"> • Can they explain how electricity is useful to us? • Can they construct a simple circuit? • Can they explain what a conductor is and test materials for conductivity? • Can they explain closed and open circuits? • Can they construct a circuit with a switch, a bulb or a buzzer? • Can they recognise some common conductors and insulators?

Year 5 Curriculum Mapping

Y5 NC Area	Y5 NC Programme of Study	PJS Programme of Study
<i>Living Things and Their Habitats</i>	<p><i>Pupils should Be Taught To:</i></p> <ul style="list-style-type: none"> • <i>describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</i> • <i>describe the life process of reproduction in some plants and animal</i> 	<p>Topic: Do All Animals and Plants Start Off as an Egg?</p> <ul style="list-style-type: none"> • Can they describe and compare the life cycles of a range of animals, including humans, amphibians, insects and birds? • Can they describe the life cycles of common plants? • Can they describe and explain the process of respiration in humans and plants? • Can they talk with knowledge about birth, reproduction and death of familiar animals or plants? • Can they explore the work of well know naturalists? (David Attenborough and Jane Goodall)
<i>Animals, Including Humans</i>	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>describe the changes as humans develop to old age</i> 	<p>Topic: How Will I Look When I am as Old as My Grandparents?</p> <ul style="list-style-type: none"> • Can they create a timeline to indicate stages of growth in humans? • Can they explain what puberty is?

Y5 NC Area	Y5 NC Programme of Study	PJS Programme of Study
<p>Properties and Changes of Materials</p>	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>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</i> • <i>know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</i> • <i>use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</i> • <i>give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</i> • <i>demonstrate that dissolving, mixing and changes of state are reversible changes</i> • <i>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</i> 	<p>Topic : Could You Be The Next CSI Investigator?</p> <ul style="list-style-type: none"> • Can they test and group materials based on scientific evidence? (hardness, solubility, transparency, conductivity, insulation, magnetism) • Can they explain the process of dissolving? • Can they recover a substance from a solution? • Can they decide how a mixture would best be separated? (filtering, sieving, evaporating) • Can they give reasons for the uses of everyday materials based on scientific evidence? • Can they show what they know about the properties of different materials? • Can they use their knowledge of materials to suggest ways to classify? (solids, liquids, gasses) • Can they describe changes using scientific words? (evaporation, condensation) • Can they use the terms ‘reversible’ and ‘irreversible’?

Y5 NC Area	Y5 NC Programme of Study	PJS Programme of Study
Earth and Space	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>describe the movement of the Earth and other planets relative to the sun in the solar system</i> • <i>describe the movement of the moon relative to the Earth</i> • <i>describe the sun, Earth and moon as approximately spherical bodies</i> • <i>use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky</i> 	<p>Topic: Will We Ever Send Another Human to The Moon?</p> <ul style="list-style-type: none"> • Can they identify and explain the movement of the Earth and other planets relative to the sun? • Can they explain how seasons and the associated weather is created? • Can they identify and explain the movement of the Moon relative to the Earth? • Can they explain the size, shape and position of the earth, sun and moon? • Can they explain how night and day are created and use diagrams to show this? • Can they explain how planets are linked to stars?
Forces	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</i> • <i>identify the effects of air resistance, water resistance and friction, that act between moving surfaces</i> • <i>recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</i> 	<p>Topic: Can You Feel the Force?</p> <ul style="list-style-type: none"> • Can they explain what gravity is and its impact on our lives? • Can they explain why a wheeled object that is initially pushed will slow down and stop? • Can they explain the impact of friction on a moving object? • Can they explain the effect of drag force on moving objects?

		<ul style="list-style-type: none">• Can they explain how force and motion can be transferred through gears, pulleys, levers and springs?
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Year 6 Science Curriculum Mapping

Y6 NC Area	Y5 NC Programme of Study	PJS Programme of Study
<i>Living Things and their Habitats</i>	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>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</i> • <i>give reasons for classifying plants and animals based on specific characteristics</i> 	<p>Topic: Could Spiderman Really Exist?</p> <ul style="list-style-type: none"> • Can they explain the classification of living things into broad groups based on common observable characteristics? (five kingdoms of all living things, vertebrates, mammals, marsupials) • Can they sub divide their original groupings and explain their divisions? • Can they group animals into vertebrates and invertebrates?
<i>Animals Including Humans</i>	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</i> • <i>recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</i> • <i>describe the ways in which nutrients and water are transported within animals, including humans</i> 	<p>Topic: What Would a Journey Through Your Body Look Like?</p> <ul style="list-style-type: none"> • Can they identify and explain the function of the organs of the human circulatory system? (heart, blood vessels, blood, blood pressure, clotting) • Can they identify and explain the function of the organs of the human gaseous exchange system? (lungs, nose, throat, bronchi, bronchial tubes, diaphragm, ribs, breathing) • Can they name the major organs in the human body?

		<ul style="list-style-type: none"> • Can they locate the major human organs? • Can they make a diagram that outlines the main parts of a body?
Evolution and Inheritance	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</i> • <i>recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</i> • <i>identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</i> 	<p>Topic: Have We Always Looked Like this?</p> <ul style="list-style-type: none"> • Can they give reasons for why living things produce offspring of the same kind? • Can they give reasons for why offspring are not identical with each other or with their parents? • Can they explain the process of evolution and describe the evidence for this? • Can they begin to appreciate that variation in offspring over time can make animals more or less able to survive in particular environments? • Can they talk about the life of Charles Darwin?
Light	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>recognise that light appears to travel in straight lines</i> • <i>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</i> 	<p>Topic: How Can You Light Up Your Life?</p> <ul style="list-style-type: none"> • Can they explain how light travels? • Can they explain how the human eye sees objects? • Can they explain how different colours of light can be created?

	<ul style="list-style-type: none"> • <i>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</i> • <i>use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them</i> 	<ul style="list-style-type: none"> • Can they use and explain how simple optical instruments work? (periscope, telescope, binoculars, mirror, magnifying glass, Newton’s first reflecting telescope) • Can they explain changes linked to light (and sound)?
<p>Electricity</p>	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> • <i>associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</i> • <i>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</i> • <i>use recognised symbols when representing a simple circuit in a diagram</i> 	<p>Topic: Could You Be the Next Nintendo Apprentice?</p> <ul style="list-style-type: none"> • Can they identify and name the basic parts of a simple electric series circuit? (cells, wires, bulbs, switches, buzzers) • Can they compare and give reasons for variation in how components function, including bulb brightness, buzzer volume and on/off position of switches? • Can they explain how to make changes in a circuit? • Can they explain the impact of changes in a circuit? • Can they explain the effect of changing the voltage of a battery?