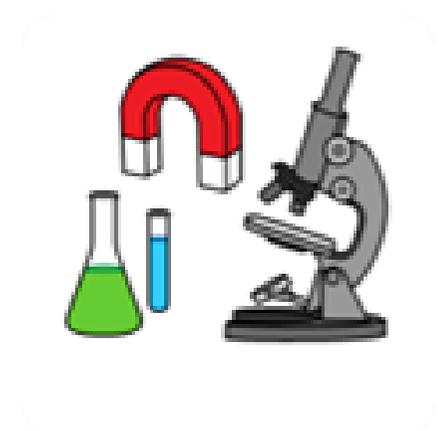


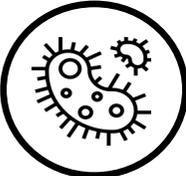
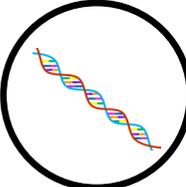
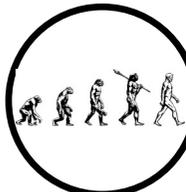


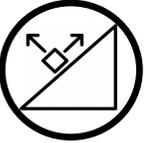
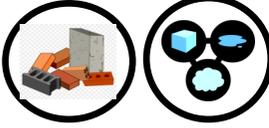
Science Medium Term Planning

Year 6

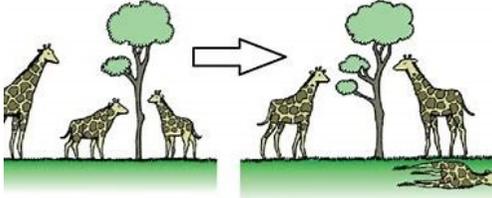
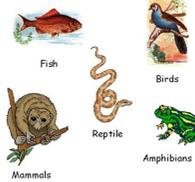
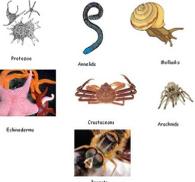
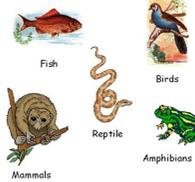
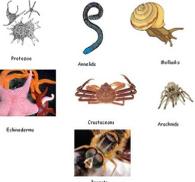
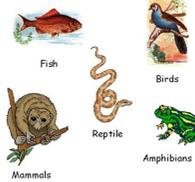
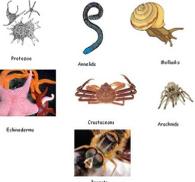
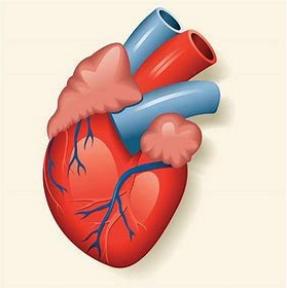
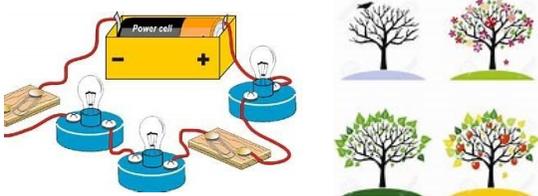


Key Concepts Overview

Key Concepts	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
<p>Organisms require a supply of energy and materials.</p>  <p>Organisms require a supply of energy and materials.</p> <p>Genetic information</p>  <p>Organisms require a supply of energy and materials.</p> <p>Evolution</p> 	<p>Seasonal Changes</p> <p>To know the four seasons and describe changes in the weather.</p> <p>To describe how tree and plants change through the seasons.</p>	<p>Seasonal Changes</p> <ul style="list-style-type: none"> ● Plants ● Habitats ● Animals 	<p>Seasonal Changes</p> <ul style="list-style-type: none"> ● Plants ● Habitats ● Animals 	<p>Seasonal Changes</p> <ul style="list-style-type: none"> ● Plants ● Habitats ● Animals 	<p>Seasonal Changes</p> <ul style="list-style-type: none"> ● Plants ● Habitats ● Animals ● Earth and Space 	<p>Seasonal Changes</p> <ul style="list-style-type: none"> ● Plants ● Habitats ● Animals 	
	<p>Animals including humans</p> <p>To name different parts of the body - particularly those associated with the five senses.</p> <p>To name and describe common animals.</p> <p>To describe what food carnivores, herbivores and omnivores might eat.</p>	<p>Animals including humans</p> <p>To explain what humans and animals need to survive and the importance of looking after our bodies - including the need for exercise, eating the right amount of food and hygiene.</p> <p>Notice that animals, including humans, have offspring that grow into adults.</p>	<p>Animals including humans</p> <p>To explain why we need food to keep us alive.</p> <p>To describe the main functions of the skeleton and muscles.</p>	<p>Animals including humans</p> <p>To explain the parts of the digestive system.</p> <p>To know the different types of teeth.</p> <p>To describe a variety of food chains.</p>	<p>Animals including humans</p> <p>To describe how our bodies changes as we age.</p>	<p>Animals including humans</p> <p>To identify the different parts of the circulatory system.</p> <p>To recognise the impact of healthy lifestyles on our body.</p> <p>To describe how nutrients and water are transported around our body.</p>	<p>Animals including humans</p>
		<p>Living things and their habitats</p> <p>To know the differences between living, dead and never lived.</p> <p>To describe simple adaptations of animals in relation to their habitats.</p> <p>Create simple food chains.</p>			<p>Living things and their habitats</p> <p>To use classification keys to group living things in a variety of ways.</p> <p>To recognise that environments can change.</p> <p>To identify dangers to living things.</p>	<p>Living things and their habitats</p> <p>To describe the life cycles of different animal groups.</p> <p>To describe how some animals and plants reproduce.</p>	<p>Living things and their habitats</p> <p>To classify plants and animals and give reasons for their choices based on characteristics.</p>
	<p>Plants</p> <p>To name and describe the simple features of common plants and trees.</p> <p>To name and describe the different parts of flowers and trees.</p>	<p>Plants</p> <p>To know what plants need to grow and stay healthy.</p>	<p>Plants</p> <p>To know the job of each part of the flower in the life cycle of a plant.</p> <p>To know what different plants need to live and grow.</p> <p>To describe how water is transported through a plant.</p>				
	<p>Evolution</p>						<p>Evolution and inheritance</p> <p>To explain that the kind of things on Earth now are different to millions of years ago.</p> <p>Give examples of how living things have adapted.</p> <p>Explain how living things produce offspring which is similar but not identical.</p>

Key Concepts	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Energy 			Light To describe some sources of light. To notice that light can be reflected from surfaces. To describe some simple properties of light including shadows.			Light To explain how light travels and how we see objects. To describe why we see shadows.
				Sound To recognise sound is made by vibrations and describe how the size of these effect pitch and volume.		
			Electricity To construct, draw, label and make predictions about simple circuits. To know some good conductors and insulators. To identify some common appliances that run on electricity.		Electricity To explain the effect of the number of cells on lights and buzzers in a circuit. To give reasons for variations in how different elements of a circuit function.	
Forces 			Forces and Magnets To understand the effect of friction and contact forces. To describe magnetic and non-magnetic materials. To describe a magnetic force.		Forces I understand the force of gravity. I can identify the effects of air resistance. I can use simple mechanisms.	
Materials  States of Matter	Materials To name and describe a variety of materials and their properties. To group materials based on their properties.	Materials To describe the properties and suitability of everyday materials.	Materials (rocks) To group rocks according to simple properties. To know how rocks and fossils are formed. To know what soil is made from.	States of matter To recognise the three common states of matter and understand how some materials can change state. To identify the part played by condensation and evaporation in the water cycle.	Materials To explain how to combine or separate mixtures and solutions. To understand reversible and irreversible changes. To compare and group materials based on more complex properties—including hardness, solubility, transparency, conductivity and response to magnets	
The Earth in relation to the universe  The Earth spins on its axis					Earth and Space To describe the movement of Earth, moon and sun and their relationship to each other and other planets.	

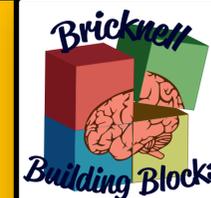
Year 6 Science—Yearly Overview

Autumn	Spring	Summer		
<p>Light up your world</p>  <p><small>©Prawny · illustrationsOf.com/78700</small></p>	<p>Everything Changes</p>  <p>natural Selection in action</p>	<p>Nature library</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"> <p>Vertebrates</p> <p><small>Animals with backbones</small></p>  </td> <td style="width: 50%; text-align: center;"> <p>Invertebrates</p> <p><small>Animals without backbones</small></p>  </td> </tr> </table>	<p>Vertebrates</p> <p><small>Animals with backbones</small></p> 	<p>Invertebrates</p> <p><small>Animals without backbones</small></p> 
<p>Vertebrates</p> <p><small>Animals with backbones</small></p> 	<p>Invertebrates</p> <p><small>Animals without backbones</small></p> 			
<p>Body Pump</p> 		<p>Body health</p> 		
<p>Our Changing World</p> 		<p>Our Changing World</p> <p>Danger! Low voltage</p> 		

Autumn Term

Light up your world

Physics



<i>Prior Learning</i>	<ul style="list-style-type: none"> Do pupils understand that we need light in order to see things in the absence of dark? Do pupils know that light can be reflected from different surfaces? Do pupils understand that a shadow is formed when the light source is blocked? Do pupils understand that light from the sun can be dangerous and that there are ways to protect their eyes?
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<i>End Points</i>	<ul style="list-style-type: none"> To explain how light travels and how we see objects. To describe why we see shadows.
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<i>Vocabulary</i>	<table style="width: 100%;"> <tr> <td>Reflect</td> <td>Iris</td> </tr> <tr> <td>Direction</td> <td>Light</td> </tr> <tr> <td>Beam</td> <td>Retina</td> </tr> <tr> <td>Refraction</td> <td>spectrum</td> </tr> </table>	Reflect	Iris	Direction	Light	Beam	Retina	Refraction	spectrum
Reflect	Iris								
Direction	Light								
Beam	Retina								
Refraction	spectrum								

Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 Energy	Significance	Lesson 1	OO: To 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. LO: I can describe the behaviour of light. I can describe how shadows are formed. WS: I can identify scientific evidence that has been used to support or refute ideas or arguments.	N/A	Torches Sunglasses Mirrors Transparent, translucent and opaque materials Data logger
	Cause and Consequence	Lesson 2	OO: I can use the idea that light travels in straight lines and enters our eyes to explain how we see things. LO: I can describe how mirrors work. WS: I raise further questions that could be investigated, based on data and observations.	Pattern seeking	Plastic mirrors Shiny metal spoons

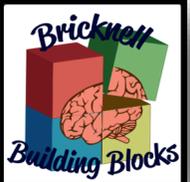


Energy

Written and oral expression	Lesson 3	<p>OO: To 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.</p> <p>I can use the idea that light travels in straight lines and enters our eyes to explain how we see things.</p> <p>LO: I can accurately describe how light travels.</p> <p>WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p>	N/A	Plastic mirrors Torches Small object - toy car or a plastic figure Cardboard Cellotape
Responsibility	Lesson 5	<p>OO: I can use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p> <p>LO: I can explain how different variables affect the size of a shadow.</p> <p>WS: I ask my own questions about the scientific phenomena that I am studying, and select the most appropriate ways to answer these questions, recognising and controlling variables where necessary (i.e. observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests, and finding things out using a wide range of secondary sources).</p>	Carrying out comparative and fair tests	Torches Sheets of white paper Tape measures Card to make shapes Graph paper

Body Pump

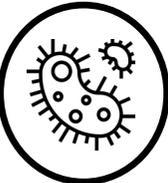
Biology

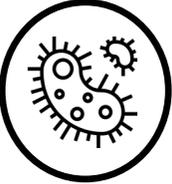


<i>Prior Learning</i>	<ul style="list-style-type: none"> • Can pupils describe the importance of looking after their bodies? • Can pupils locate key muscles? • Can pupils recall the key parts of the digestive system?
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<i>End Points</i>	<ul style="list-style-type: none"> • To identify the different parts of the circulatory system. • To recognise the impact of healthy lifestyles on our body. • To describe how nutrients and water are transported around our body.
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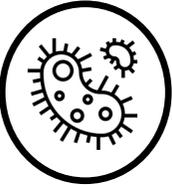
<i>Vocabulary</i>	<table style="width: 100%;"> <tr> <td>Circulatory system</td> <td>Ventricles</td> </tr> <tr> <td>Capillaries</td> <td>Arteries</td> </tr> <tr> <td>Aorta</td> <td>Bloodstream</td> </tr> <tr> <td>White/red blood cells</td> <td>medicine</td> </tr> </table>	Circulatory system	Ventricles	Capillaries	Arteries	Aorta	Bloodstream	White/red blood cells	medicine
Circulatory system	Ventricles								
Capillaries	Arteries								
Aorta	Bloodstream								
White/red blood cells	medicine								

Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 Organisms	Written and oral expression	Lesson 1	OO: I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. LO: I can recall the key parts of the digestive, muscular and skeletal systems. WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	Research	Chalk or masking tape x3 tabard style sports bibs Foot pump Stethoscopes or cardboard tubes Red and blue paper stuck back to back
		Lesson 2	OO: I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. LO: I can create a model of the heart to illustrate how the different parts fit and work together. WS: I draw conclusions, explain and evaluate my methods and findings, communicating these in a variety of ways.	Research	Different coloured modelling clay Scissors Research materials about the heart

Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 <p>Organisms</p>	<p><i>Written and oral expression</i></p>	<p>Lesson 4</p>	<p>OO: I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p> <p>LO: I can describe how the different parts of blood enable it to carry oxygen, waste gases, nutrients and water.</p> <p>WS: I draw conclusions, explain and evaluate my methods and findings, communicating these in a variety of ways.</p>	<p>Research</p>	<p>Plasma - yellow liquid - very weak orange juice</p> <p>Red blood cells - chopped up pieces of jelly cube</p> <p>White blood cells - mini white marshmallows</p> <p>Platelets - white rice</p> <p>Sealable plastic bag</p>
		<p>Lesson 5</p>	<p>OO: I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p> <p>LO: I can explore how valves and blood vessels function within the heart.</p> <p>WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p>	<p>Research</p>	<p>Research material</p>

Our Changing World

Biology

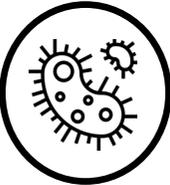
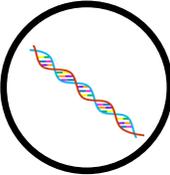
Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 <p><i>Organisms</i></p>	<p><i>Written and oral expression</i></p>	<p>Lesson 1 (This could be taught with lesson 2)</p>	<p>OO: I can group, classify and identify plants, animals and micro-organisms using keys or other methods based on their observable features.</p> <p>LO: I can observe and describe what animals are doing at different times of the year.</p> <p>WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p>	<p>Identifying and classifying</p>	<p>Animal identification guides Binoculars iPads Magnifying glasses</p>
		<p>Lesson 2</p>	<p>OO: I can describe how living things have changed over time and evolved using the basic ideas of inheritance, variation and adaptation.</p> <p>I can describe the differences in life cycles of a mammal, amphibian, insect and a bird.</p> <p>LO: I can observe and describe what animals are doing at different times of the year.</p> <p>WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p>	<p>Pattern seeking</p>	<p>iPads Online webcams or videos showing breeding birds and other animals Magnifying glasses Animal identification charts Binoculars</p>

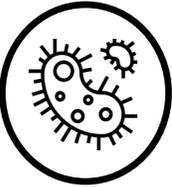
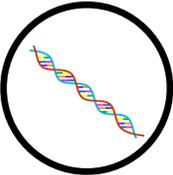
Spring Term

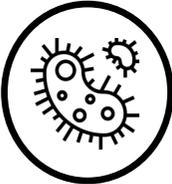
Everything Changes

Biology



<i>Prior Learning</i>	<ul style="list-style-type: none"> Can pupils describe how animals and plants reproduce? Can pupils describe what happens to the body as we age? 				
<i>End Points</i>	<ul style="list-style-type: none"> To explain that the kind of things on Earth now are different to millions of years ago. Give examples of how living things have adapted. Explain how living things produce offspring which is similar but not identical. 				
<i>Vocabulary</i>	Changes Develop Characteristics elderly				
Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 <i>Organisms</i>	Written and oral expression	Lesson 1 Lesson 2	OO: To recognise that living things produce offspring of the same kind, but that offspring normally vary and are not identical to their parents. LO: I can investigate and discuss the characteristics of living things. WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. I can identify scientific evidence that has been used to support or refute ideas or arguments.	Identifying and classifying Research	Rulers Metre sticks Sticky notes Large paper Research material
 <i>Genetic information</i>	Significance	Lesson 3	OO: To recognise that living things produce offspring of the same kind, but that offspring normally vary and are not identical to their parents. LO: I can describe the advantages of selective breeding for food and its advantages and disadvantages. WS: I can identify scientific evidence that has been used to support or refute ideas or arguments.	Research	Research material

Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 <p><i>Organisms</i></p>	Responsibility	Lesson 4 Lesson 5	<p>OO: I can describe how living things have changed over time and evolved using the basic ideas of inheritance, variation and adaptation.</p> <p>I can give evidence for evolution.</p> <p>LO: I can investigate way in which the environment can affect how plants grow.</p> <p>WS: I ask my own questions about the scientific phenomena that I am studying, and select the most appropriate ways to answer these questions, recognising and controlling variables where necessary (i.e. observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests, and finding things out using a wide range of secondary sources).</p>	Carrying out comparative and fair tests	Photographs of wild plants in different habitats Petri dishes Cotton wool Cress and mustard seeds Dark paper
		 <p><i>Genetic information</i></p>	Significance	Lesson 6	<p>OO: I can describe how living things have changed over time and evolved using the basic ideas of inheritance, variation and adaptation.</p> <p>I can give evidence for evolution.</p> <p>LO: I understand that changes in the environment can have an impact on living things.</p> <p>I can describe how adaptations of living things help them to survive in their environment.</p> <p>WS: I draw conclusions, explain and evaluate my methods and findings, communicating these in a variety of ways .</p> <p>I describe and evaluate my own and others' scientific ideas related to topics in the national curriculum (including ideas that have changed over time), using evidence from a range of sources.</p>
Lesson 7	<p>OO: I can describe how living things have changed over time and evolved using the basic ideas of inheritance, variation and adaptation.</p> <p>I can give evidence for evolution.</p> <p>LO: I understand how changes in an environment can cause living things to become extinct.</p> <p>WS: I can identify scientific evidence that has been used to support or refute ideas or arguments.</p>			Research	Research material A3 paper

Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 <p>Organisms</p>	Written and oral expression	Lesson 8	<p>OO: I can describe how living things have changed over time and evolved using the basic ideas of inheritance, variation and adaptation.</p> <p>I can give evidence for evolution.</p> <p>LO: I can describe what living things need in order to survive in a specific environment.</p> <p>WS: I draw conclusions, explain and evaluate my methods and findings, communicating these in a variety of ways .</p>	N/A	Model building materials
	Significance	Lesson 9	<p>OO: Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</p> <p>LO: I can examine fossils to gain an understanding of how plants and animals may have looked in the past and can suggest the environment that may have lived in.</p> <p>WS: I can identify scientific evidence that has been used to support or refute ideas or arguments.</p>	Research	Photographs of a range of fossils Research material
		Lesson 10	<p>OO: Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</p> <p>LO: I can understand how natural selection works.</p> <p>WS: I can identify scientific evidence that has been used to support or refute ideas or arguments.</p> <p>I describe and evaluate my own and others' scientific ideas related to topics in the national curriculum (including ideas that have changed over time), using evidence from a range of sources.</p>	Research	Large pieces of paper plastic cups Rice Tweezers Tongs plastic forks plastic knives marbles

Summer Term

Nature Library

Biology

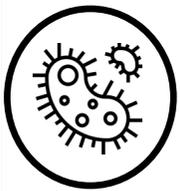


<i>Prior Learning</i>	<ul style="list-style-type: none"> Do pupils know what classification keys are? Can they describe the life cycles of some animals and plants? Can pupils describe how animals and plants reproduce?
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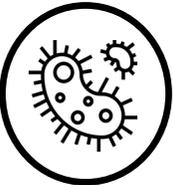
<i>End Points</i>	<ul style="list-style-type: none"> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics.
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<i>Vocabulary</i>	microorganism endoskeleton microbe bacteria decay exoskeleton
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Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
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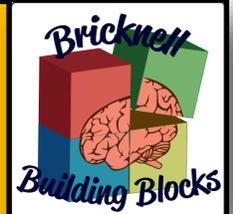
 Organisms	Written and oral expression	Lesson 1	OO: I can group, classify and identify plants, animals and micro-organisms using keys or other methods based on their observable features. LO: I can group living things according to the characteristics they have in common. WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	Identifying and classifying	Large selection of different types of sweet - toffees, chocolates, marshmallows, peppermint cream, liquorice allsorts Hoops string
		Lesson 2	OO: I can group, classify and identify plants, animals and micro-organisms using keys or other methods based on their observable features. LO: I can identify and group plants using classification keys. WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	Identifying and classifying	Different types of plant—including one moss, one fern and a conifer Photographs of plants too for additional material Sticky notes

Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 <p>Organisms</p>	<i>Written and oral expression</i>	Lesson 3	<p>OO: I can group, classify and identify plants, animals and micro-organisms using keys or other methods based on their observable features.</p> <p>LO: I can group and classify vertebrates.</p> <p>WS: I draw conclusions, explain and evaluate my methods and findings, communicating these in a variety of ways.</p>	Identifying and classifying	Research materials
		Lesson 4	<p>OO: I can group, classify and identify plants, animals and micro-organisms using keys or other methods based on their observable features.</p> <p>LO: I can group and classify invertebrates.</p> <p>WS: I draw conclusions, explain and evaluate my methods and findings, communicating these in a variety of ways.</p>	Identifying and classifying	Research materials
		Lesson 5	<p>OO: I can group, classify and identify plants, animals and micro-organisms using keys or other methods based on their observable features.</p> <p>LO: I can identify and classify living things within my school environment.</p> <p>WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p>	Identifying and classifying	Collection pots Paintbrushes Magnifying glasses Identification keys iPads
	<i>Significance</i>	Lesson 6	<p>OO: I can group, classify and identify plants, animals and micro-organisms using keys or other methods based on their observable features.</p> <p>LO: I am beginning to understand that micro-organisms are also living things.</p> <p>WS: I can identify scientific evidence that has been used to support or refute ideas or arguments.</p>	Identifying and classifying	Mushrooms Magnifying glasses

Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 <p>Organisms</p>	Responsibility	Lesson 7	<p>OO: I can group, classify and identify plants, animals and micro-organisms using keys or other methods based on their observable features.</p> <p>LO: I can observe and investigate how micro-organisms grow and multiply over time.</p> <p>WS: I ask my own questions about the scientific phenomena that I am studying, and select the most appropriate ways to answer these questions, recognising and controlling variables where necessary (i.e. observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests, and finding things out using a wide range of secondary sources).</p>	Observation over time	Petri dishes Trays Fresh white bread Stale white bread Granary bread Sealable transparent plastic bags Sticky tape labels

Body Health

Biology

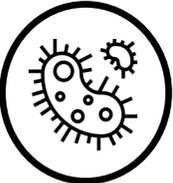


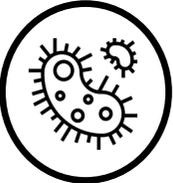
<i>Prior Learning</i>	<ul style="list-style-type: none"> • Can pupils describe what humans and animals need to survive? • Can pupils explain why we must look after our bodies? • Can pupils explain why humans need food? • Can pupils explain the changes in our bodies as we age?
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<i>End Points</i>	<ul style="list-style-type: none"> • To recognise the impact of healthy lifestyles on our body. • To describe how nutrients and water are transported around our body.
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<i>Vocabulary</i>	drug substances medicine glucose starch trans and saturated fats
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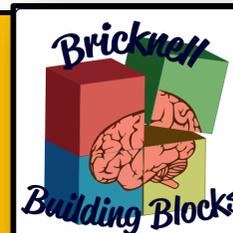
Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
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 Organisms	Written and oral expression	Lesson 1	OO: I can describe the effects of diet, exercise, drugs and lifestyle on how the body functions. LO: I understand how humans obtain nutrition from the different types of food they eat. WS: I draw conclusions, explain and evaluate my methods and findings, communicating these in a variety of ways.	Research	Large sheets of paper Research material Healthy education pamphlets and posters
	Significance	Lesson 2	OO: I can describe the effects of diet, exercise, drugs and lifestyle on how the body functions. LO: I can investigate food packaging labels to identify different food groups. WS: I can identify scientific evidence that has been used to support or refute ideas or arguments.	Identifying and classifying	Range of food packaging Small paper plates

Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 <p>Organisms</p>	Significance	Lesson 4	<p>OO: I can describe the effects of diet, exercise, drugs and lifestyle on how the body functions.</p> <p>LO: I can investigate historical cases of diet affecting health and can explain how the results have impacted our diet today.</p> <p>WS: I can identify scientific evidence that has been used to support or refute ideas or arguments.</p>	Research	Research material
	Responsibility	Lesson 5	<p>OO: I can describe the effects of diet, exercise, drugs and lifestyle on how the body functions.</p> <p>LO: I can explore the impact of exercise on the body.</p> <p>WS: I use a range of scientific equipment to take accurate and precise measurements or readings, with repeat readings where appropriate.</p>	Carrying out comparative and fair tests	Stopwatch
	Written and oral expression	Lesson 7	<p>OO: I can describe the effects of diet, exercise, drugs and lifestyle on how the body functions.</p> <p>LO: I can explore the impact of drugs on the way the body functions.</p> <p>WS: I draw conclusions, explain and evaluate my methods and findings, communicating these in a variety of ways.</p>	Research	Resources linked to drugs

Danger: Low Voltage!

Physics



<i>Prior Learning</i>	<ul style="list-style-type: none"> • Can pupils construct simple circuits? • Can pupils make predictions about whether a circuit will work or not? • Can pupils name good conductors? • Can pupils name good insulators?
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<i>End Points</i>	<ul style="list-style-type: none"> • To explain the effect of the number of cells on lights and buzzers in a circuit. • To give reasons for variations in how different elements of a circuit function.
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<i>Vocabulary</i>	<table border="0"> <tr> <td>voltage</td> <td>current</td> </tr> <tr> <td>amp</td> <td>resistance</td> </tr> <tr> <td>transformer</td> <td>resistor</td> </tr> <tr> <td>filament'</td> <td>symbol</td> </tr> <tr> <td>energy</td> <td></td> </tr> </table>	voltage	current	amp	resistance	transformer	resistor	filament'	symbol	energy	
voltage	current										
amp	resistance										
transformer	resistor										
filament'	symbol										
energy											

Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 Energy	Written and oral expression	Lesson 1	OO: I can use recognised symbols when representing a simple circuit in a diagram. LO: I can construct a simple circuit. WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	Carrying out simple comparative and fair tests	Human circuit ball Electrical circuit equipment Thin tinfoil strips Modelling clay Small screw drivers
		Lesson 2	OO: I can use simple apparatus to construct & control a series circuit, and describe how the circuit may be affected when changes are made to it. LO: I can construct a simple circuit using a switch. WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	Carrying out simple comparative and fair tests	Electrical equipment Small screwdrivers Wire strippers Match boxes, metal foil, paper fasteners, paper clips, film canisters, small ball bearings, card, tape,

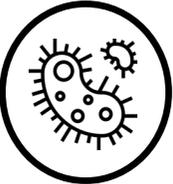


Energy

Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 Energy	Written and oral expression	Lesson 3	OO: I can use simple apparatus to construct & control a series circuit, and describe how the circuit may be affected when changes are made to it. LO: I can add different components to electrical circuits. I can explain the idea of resistance in an electrical circuit. WS: I draw conclusions, explain and evaluate my methods and findings, communicating these in a variety of ways.	Carrying out simple comparative and fair tests	Electrical circuit equipment Pencils stuck to lollipop sticks
		Lesson 4	OO: I can use simple apparatus to construct & control a series circuit, and describe how the circuit may be affected when changes are made to it. I can use recognised symbols when representing a simple circuit in a diagram. LO: I can use recognised electrical symbols in diagrams of electrical circuits. WS: I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	Carrying out simple comparative and fair tests	Electrical circuit equipment
		Lesson 5 (Can be taught with lesson 6)	OO: I can use simple apparatus to construct & control a series circuit, and describe how the circuit may be affected when changes are made to it. LO: I can investigate the everyday use of electricity. WS: I draw conclusions, explain and evaluate my methods and findings, communicating these in a variety of ways.	Research	Research material Sticky notes
	Significance	Lesson 6	OO: I can use simple apparatus to construct & control a series circuit, and describe how the circuit may be affected when changes are made to it. LO: I can investigate the everyday use of electricity. WS: I can identify scientific evidence that has been used to support or refute ideas or arguments.	Carrying out simple comparative and fair tests	Research material Sticky notes

Our Changing World

Biology

Key Concept	Second Order Concepts	Lesson Sequence	Learning Objectives	Enquiry Type	Resources
 <p><i>Organisms</i></p>	<p><i>Written and oral expression</i></p>	<p>Lesson 4</p>	<p>OO: I can describe how living things have changed over time and evolved using the basic ideas of inheritance, variation and adaptation.</p> <p>I can give evidence for evolution.</p> <p>LO: I can observe and identify patterns in the variety of bird found around school.</p> <p>WS: I draw conclusions, explain and evaluate my methods and findings, communicating these in a variety of ways.</p>	<p>Pattern seeking</p>	<p>Binoculars</p> <p>iPads</p> <p>Information on a range of birds</p>