

National Curriculum	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Biology</b>							
Animals Including Humans	<p>The most relevant early years outcomes for science are taken from:</p> <p>Physical Development</p> <p>Understanding the World</p> <p>Expressive Arts and Design</p>	<ul style="list-style-type: none"> <li>-What is an animal?</li> <li>-What types of animal are there?</li> <li>-What is similar and what is different?</li> <li>-What does food tell us about an animal?</li> <li>-Which animals are busy at night?</li> <li>-What makes me an animal?</li> </ul>	<ul style="list-style-type: none"> <li>-Remember: what is an animal?</li> <li>-How do animals change as they mature?</li> <li>-What do all animals need to stay alive?</li> <li>-Do older children have bigger heads?</li> <li>-How can we sort this food?</li> <li>-Keeping healthy: why do we exercise?</li> <li>-Keeping healthy: why do we eat different types of food?</li> <li>-Summary: what do I know about animals, including humans?</li> </ul>	<ul style="list-style-type: none"> <li>-What effect does the food we eat have?</li> <li>-Where is my skeleton and what does it do?</li> <li>-Where are my muscles and what do they do?</li> <li>-Do our bodies affect how well we do things?</li> <li>-How good are we at different activities?</li> </ul>	<ul style="list-style-type: none"> <li>-What teeth do humans have? What do they do?</li> <li>- How do our teeth and mouth help with digestion? What's the process?</li> <li>- Can teeth tell us what animals eat?</li> <li>- What are the parts of the digestive system?</li> <li>- How does digestion work? What's the process?</li> <li>- What are food chains? How to they work?</li> <li>- How do I construct and interpret a food chain?</li> <li>- How are teeth, digestion and food chains connected?</li> </ul>	<ul style="list-style-type: none"> <li>-What is the human timeline?</li> <li>-How do we change into adults?</li> <li>-How does human and animal gestation and lifespan compare?</li> </ul>	<ul style="list-style-type: none"> <li>-What is blood made of and why do we need it?</li> <li>-Why do our bodies need nutrients and how are they transported?</li> <li>-What is our circulatory system?</li> <li>-What is our heart like inside? How does it work?</li> <li>-Who influenced what we know about our circulatory system?</li> <li>- Remember circulation and digestion: how are these two systems connected?</li> <li>- Where are the kidneys and what do they do?</li> <li>-What can we do to keep healthy?</li> <li>-Present and explain what we know about the circulatory system, nutrients and keeping healthy</li> </ul>
Plants		<ul style="list-style-type: none"> <li>-What are the parts of a plant?</li> <li>-What are wild plants and where do you find them?</li> <li>-What are garden plants and where do you find them?</li> <li>-What makes a tree?</li> <li>-What types of tree are there?</li> <li>-What's the difference between trees?</li> </ul>	<ul style="list-style-type: none"> <li>-How do seeds germinate and what happens?</li> <li>-What happens when bulbs sprout?</li> <li>-What do plants need to thrive and be healthy?</li> <li>What can happen if plants don't get the things they need?</li> <li>-What do I notice about plants around school? How are they healthy or unhealthy?</li> <li>-Show what you know</li> </ul>	<ul style="list-style-type: none"> <li>- What are the parts of a flowering plant?</li> <li>- Do all plants need the same things to thrive and grow?</li> <li>- How do leaves make food for the plant?</li> <li>- How does water move through a plant?</li> <li>- Where do new plants come from?</li> <li>- What do flowers do?</li> <li>- What is pollination?</li> <li>- How are seeds dispersed?</li> </ul>			
Living Things and Their Habitats			<ul style="list-style-type: none"> <li>-What is alive and what is not?</li> <li>-What do all living things have in common?</li> <li>-Where do plants and animals live?</li> <li>-What plants and animals live in our local</li> </ul>		<ul style="list-style-type: none"> <li>-What are the characteristics of living things?</li> <li>-What animals are vertebrates?</li> <li>-What animals are invertebrates?</li> <li>-What groups are plants</li> </ul>	<ul style="list-style-type: none"> <li>- Life cycles: what's the difference between a mammal and an amphibian?</li> <li>- Life cycles: what's the difference between an insect and a bird?</li> <li>- What is similar and what</li> </ul>	<ul style="list-style-type: none"> <li>- Who was the scientist Carl Linnaeus and what did he do?</li> <li>- How do we classify vertebrates?</li> <li>- How do we classify invertebrates we know?</li> <li>- How do we classify</li> </ul>

			<p>environment?</p> <ul style="list-style-type: none"> <li>-What are food chains? How are they connected?</li> <li>-Why do plants and animals need each other?</li> </ul>		<p>classified in?</p> <ul style="list-style-type: none"> <li>-What is classification? How do I use a key?</li> <li>-What happens if the environment in a habitat changes?</li> </ul>	<p>is different between the life cycle of a mammal, an insect, an amphibian and a bird?</p> <ul style="list-style-type: none"> <li>- Summer birds: who was Maria Merion and what did she do?</li> <li>- The science of life: how do living things reproduce?</li> <li>- Plants: what's the life process of reproduction?</li> </ul>	<p>invertebrates we DON'T know?</p> <ul style="list-style-type: none"> <li>- Apply it: what animals can I classify? What animals and plants exist in my local environment?</li> <li>- What else is living besides plants and animals?</li> <li>- How can you grow your own micro-organisms?</li> </ul>
Seasonal Changes		<ul style="list-style-type: none"> <li>-What are the four seasons?</li> <li>-What's the weather like in Autumn, Winter, Spring and Summer?</li> <li>-Why does day become night?</li> </ul>					
Evolution and Inheritance							<ul style="list-style-type: none"> <li>-How have living things changed over time?</li> <li>-How has life on Earth changed over time?</li> <li>-What is DNA and what does it do?</li> <li>-Are all offspring identical to their parents?</li> <li>-Darwin and Wallace – what evidence did they share to argue the case for evolution?</li> <li>-Survival of the fittest – how have animals adapted and evolved to suit their environment?</li> </ul>
<b>Chemistry</b>							
States of Matter					<ul style="list-style-type: none"> <li>- What is matter? What does 'state' mean?</li> <li>- What are solids, liquids and gases?</li> <li>- Melting: how do materials change state?</li> <li>- Evaporating: how do materials change state?</li> <li>Condensing: how do materials change state?</li> <li>- Where does rain come from?</li> <li>- Summary: how do materials change their states of matter?</li> </ul>		
Materials		-What are materials?	- Revisit materials:			-What properties do	

		<ul style="list-style-type: none"> <li>-What are things made of in school?</li> <li>-Can the same object be made from different materials?</li> <li>-How can I describe materials?</li> <li>-Which materials are waterproof and which are not?</li> <li>-Which materials are transparent and which are opaque?</li> <li>-What's the best material for the job? Why?</li> </ul>	<ul style="list-style-type: none"> <li>Remember it</li> <li>Apply it</li> <li>Prove it</li> <li>- What are materials used for?</li> <li>- What happens when we squash, bend, twist or stretch a material?</li> <li>- What is it made from?</li> <li>- What's the best absorbent material?</li> <li>- What is waterproofing?</li> </ul>			<ul style="list-style-type: none"> <li>materials have? How do we use them?</li> <li>-What is a solution and what is a mixture?</li> <li>-How can we separate materials from a mixture?</li> <li>-How can we separate materials from a solution?</li> <li>-Are the changes that happen around us reversible or irreversible?</li> <li>-What changes are reversible?</li> <li>-What changes are irreversible?</li> </ul>	
Rocks				<ul style="list-style-type: none"> <li>-How are rocks formed?</li> <li>-What type of rocks are there?</li> <li>-Are all rocks as hard as one another?</li> <li>-Are all rocks waterproof?</li> <li>-How can I test a rock to identify it as limestone or chalk?</li> <li>-Is soil just dirt?</li> <li>-How are fossils formed?</li> <li>-Elaborate and remember rocks, soils and fossils</li> </ul>			
Physics							
Earth and Space						<ul style="list-style-type: none"> <li>-What are the planets in our solar system?</li> <li>-How does our view of the Moon change in a month?</li> <li>Why does the rotation of the Earth result in night and day?</li> <li>-Why is the Earth's tilt (axis) responsible for the seasons?</li> <li>-Show what you know – retrieve, explain and present</li> </ul>	
Electricity				<ul style="list-style-type: none"> <li>-What sort of appliances use electricity?</li> <li>-What sort of power makes them work?</li> <li>-How can we be safe with electricity?</li> <li>-What are the components in a simple</li> </ul>		<ul style="list-style-type: none"> <li>-What is electricity? How does it work?</li> <li>-What are the components in a series circuit?</li> <li>-What are the effects and consequences of changing circuit</li> </ul>	

					<p>series circuit?</p> <ul style="list-style-type: none"> <li>-What happens when a circuit is open or closed?</li> <li>-What can we use instead of wires?</li> <li>-What types of material conduct electricity?</li> <li>-How are electrical conductors used?</li> <li>-What are the effects of changing circuit components and batteries?</li> </ul>		<p>components and batteries?</p>
Light				<ul style="list-style-type: none"> <li>- Do we need light to see things?</li> <li>- What do mirrors do?</li> <li>- How are shadows formed?</li> <li>- What happens to the size of a shadow when the object moves closer to or away from the light source?</li> <li>- Are you safe in the sun?</li> </ul>			<ul style="list-style-type: none"> <li>- What is light and what does it do?</li> <li>- How does light travel?</li> <li>- How can you measure a shadow?</li> <li>- What do we know about changing shadow sizes?</li> <li>- What colour is light made of?</li> <li>- Reflection – how does light help us to see objects?</li> <li>- What surfaces make the best reflectors?</li> <li>- Why do we see objects as particular colours?</li> <li>- What happens to the appearance of objects when placed in water?</li> </ul>
Forces				<ul style="list-style-type: none"> <li>-What is a contact force?</li> <li>-How do surfaces affect the resistance of an object's movement?</li> <li>-How does friction affect moving objects?</li> <li>-What is a non-contact force?</li> <li>-How do magnets attract and repel objects?</li> <li>-Which materials are magnetic?</li> </ul>		<ul style="list-style-type: none"> <li>- How can we measure forces?</li> <li>- When is friction helpful and not helpful?</li> <li>- What's the effect of air resistance?</li> <li>- What's the effect of water resistance?</li> <li>- How do levers help us?</li> <li>- How do pulleys and gears help us?</li> <li>- Who was Galileo Galilei?</li> </ul>	
Sound					<ul style="list-style-type: none"> <li>- What do we know about sound?</li> <li>- What is sound?</li> <li>- How does sound travel?</li> <li>- How can we make a sound louder and quieter?</li> <li>- How do sounds change as we move away from</li> </ul>		

					the source? - What is the pitch and loudness of sound?		
Working Scientifically							
Throughout all units							

Science Coverage Map