

**Bridge Hall Primary Our curriculum intent is to learn, to explore, to share**

Curriculum Mapping - Science is the foundations to understand how the natural and physical world is structured and how it behaves

	A1	A2	Sp1	Sp2	S1	S2
<p>EYFS</p> <p>Scientists YN Jim Al-Khalili David Attenborough</p> <p>YR- Albert Einstein Jane Goodall (chimps)</p>	<p><b>Animals inc Humans</b></p> <ul style="list-style-type: none"> <li>✂ Name and describe animals</li> <li>✂ Sort animals and describe</li> <li>✂ Describe parts of an animals</li> <li>✂ Describe similarities and difference</li> </ul>	<p><b>Weather and Seasonal Change:</b></p> <p><b>Winter</b></p> <ul style="list-style-type: none"> <li>✂ Observe repeating and natural weather changes</li> <li>✂ Say what we wear in winter and why</li> <li>✂ know two seasonal foods</li> <li>✂ Know a winter celebration</li> </ul>	<p><b>Life processes and living things</b></p> <ul style="list-style-type: none"> <li>✂ Recall facts about specific animals</li> <li>✂ know where some animals live</li> <li>✂ know what some animals eat</li> <li>✂ know that birds hatch from an egg but a human baby doesn't</li> </ul>	<p><b>Everyday materials</b></p> <ul style="list-style-type: none"> <li>✂ Name and describe everyday materials</li> <li>✂ Compare and sort natural and manmade materials</li> <li>✂ Compare and sort hard and soft materials</li> <li>✂ Learn about materials used for a particular purposes</li> </ul>	<p><b>Seasonal Change: Spring/summer</b></p> <ul style="list-style-type: none"> <li>✂ Name a place where people like to go on a summer holiday</li> <li>✂ Recognise the signs of Spring.</li> <li>✂ Observe what happens to the sky during Spring and Summer.</li> <li>✂ Name Springtime flowers like primroses and dandelions.</li> </ul>	<p><b>Natural World</b></p> <p>Forest school:</p> <ul style="list-style-type: none"> <li>✂ Explore the natural world around them using their senses.</li> <li>✂ Create structures for animals using natural materials.</li> <li>✂ Describe what they see, hear and feel outside.</li> <li>✂ Make observational and drawings of animals and plants.</li> </ul>
<p>Y1</p>	<p><b>Animals inc humans</b></p> <ul style="list-style-type: none"> <li>✂ Name a reptile</li> <li>✂ name an amphibian</li> <li>✂ name two mammals</li> <li>✂ know that a human is a mammal</li> <li>✂ Name all of the human senses</li> </ul>	<p><b>Seasonal Changes Autumn and Winter</b></p> <ul style="list-style-type: none"> <li>✂ We have 4 seasons and winter is the coldest</li> <li>✂ Autumn is when leaves change colour</li> <li>✂ The shortest day of the year is 21st December</li> <li>✂ When it is our winter, it is summer in</li> </ul>	<p><b>Everyday materials name/describe everyday materials Compare + group materials.</b></p> <ul style="list-style-type: none"> <li>✂ Glass is used for windows</li> <li>✂ Glass is used for mirrors</li> <li>✂ Metal is used for strength which is why it is used to build planes, cars and tall buildings</li> </ul>	<p><b>Seasonal changes Spring and Summer</b></p> <ul style="list-style-type: none"> <li>✂ We have 4 seasons and summer is the hottest</li> <li>✂ Spring starts when day and night are the same length</li> <li>✂ The longest day of the year is 21st June</li> <li>✂ When it is our summer, it is winter in</li> </ul>	<p><b>Plants</b></p> <ul style="list-style-type: none"> <li>✂ Name a plant that grows from a bulb</li> <li>✂ Name two plant parts and know their function</li> <li>✂ know some trees can live for thousands of years</li> <li>✂ Name an evergreen tree</li> <li>✂ Name a deciduous tree</li> </ul>	<p><b>Scientists &amp; inventors</b></p> <p>Helen Sharmen (seasonal changes) Marvin Dekil (environment)</p> <ul style="list-style-type: none"> <li>✂ To know the name of a significant scientist</li> <li>✂ To explain their role</li> <li>✂ To know when the scientist completed their work</li> </ul>

		<p>the southern hemisphere</p> <ul style="list-style-type: none"> <li>Seasons change because of the way the Earth travels around the Sun</li> </ul>	<ul style="list-style-type: none"> <li>Wood is used to make furniture</li> <li>Plastic can be moulded</li> </ul>	<p>the southern hemisphere</p> <ul style="list-style-type: none"> <li>Seasons change because of the way the Earth travels around the Sun</li> </ul>		<ul style="list-style-type: none"> <li>To know a fact about their important work</li> </ul>
Y2	<p><b>Scientists &amp; inventors</b> Johnathan Van Tam + Lady Mary Wortley Montagu (Healthy Living)</p> <ul style="list-style-type: none"> <li>To know the name of Jonathan Van Tam</li> <li>Know he studied influenza</li> <li>know the name of Lady Mary Wortley Montagu</li> <li>To know she discovered the inoculation of smallpox</li> </ul>	<p><b>Everyday Materials</b> ID and compare wood, metal, plastic, glass, brick, rock, paper &amp; card</p> <p>How shape can change with squashing, bending, twisting, stretching</p> <ul style="list-style-type: none"> <li>Glass is transparent</li> <li>Most of the paper and card we use came from trees</li> <li>Glass can come in different colours. This is often used in church windows</li> <li>Plastics are used to make many everyday objects</li> <li>Petrol is used to make plastic</li> </ul>	<p><b>Animals inc humans</b> Healthy living</p> <ul style="list-style-type: none"> <li>That animals have young animals that look like them</li> <li>Babies will grow into adults</li> <li>Know that humans need food and water to survive</li> <li>To know that 5 portions of fruit and veg will keep them healthy</li> <li>To know the importance of hygiene and how to get rid of germs</li> </ul>	<p><b>Plants</b> How seeds and bulbs grow How water, light and temp is needed for healthy growth.</p> <ul style="list-style-type: none"> <li>Trees and shrubs take in water and carbon dioxide and give out oxygen</li> <li>The oldest tree is over 5000 years old</li> <li>A tree has many roots to carry food and water from the ground to the trunk to the branches.</li> <li>The trunk is the main body. It is covered with bark which protects it</li> <li>Leaves can be different shapes but all leaves take in sunlight and use water and nutrients to make the tree grow</li> </ul>	<p><b>Living things and their habitats</b> Compare living/dead Describe different habitats Match animal to habitat</p> <ul style="list-style-type: none"> <li>Know a habitat is a place where an animal lives where there is food, water and shelter</li> <li>Know that a mountain and a hedgerow are two different habitats</li> <li>Animals like cockroaches, are really important to a habitat as they feed off dead plants</li> <li>Name a local habitat</li> <li>know the food chain of a fox</li> </ul>	<p><b>The environment</b> The importance of recycling</p> <ul style="list-style-type: none"> <li>Many items can be recycled</li> <li>Recycled food and plant material can make compost</li> <li>Throwing plastic away can cause harm to animals and habitats</li> <li>Stockport Council provide different coloured bins to recycle materials</li> </ul>
Y3	<p><b>Animals inc humans</b> Skeleton and Muscles</p>	<p><b>Rocks</b></p> <ul style="list-style-type: none"> <li>Know how fossils are formed.</li> </ul>	<p><b>Light and Dark</b></p> <ul style="list-style-type: none"> <li>We need light to see things</li> </ul>	<p><b>Scientists and inventors</b></p>	<p><b>Forces and Magnets</b></p> <ul style="list-style-type: none"> <li>That magnets have 2 poles</li> </ul>	<p><b>Plants</b></p>

	<ul style="list-style-type: none"> <li>✂ Humans have skeletons and muscles for protection and support</li> <li>✂ Broken bones repair themselves</li> <li>✂ The longest human bone is the femur</li> <li>✂ Name body parts associated with skeleton and muscles</li> <li>✂ Know what a healthy meal looks like</li> </ul>	<ul style="list-style-type: none"> <li>✂ Know that soil is a mixture of minerals and organic material</li> <li>✂ Know the difference between igneous, sedimentary and metamorphic rocks</li> <li>✂ Rocks have been used by humans for millions of years to make tools and weapons</li> <li>✂ recognise rocks that are porous and non/porous</li> </ul>	<ul style="list-style-type: none"> <li>✂ Dark is the absence of light</li> <li>✂ Light can be reflected</li> <li>✂ A shadow is formed when a solid object blocks light</li> <li>✂ We should never look directly at the sun</li> </ul>	<ul style="list-style-type: none"> <li>✂ Mary Anning lived 1799-1847</li> <li>✂ She collected fossils</li> <li>✂ She was famous for the discovery of <b>the first plesiosaur</b></li> <li>✂ Stephen Hawking lived 1947-2018</li> <li>✂ He was a physicist who discovered who discovered that <b>black holes emit radiation</b></li> </ul>	<ul style="list-style-type: none"> <li>✂ 2 magnets will attract/repel each other</li> <li>✂ Earth is a very big magnet</li> <li>✂ Magnets only attract certain types of metals</li> <li>✂ A force is a push or a pull</li> </ul>	<ul style="list-style-type: none"> <li>✂ Name the stem, roots, leaves and flowers.</li> <li>✂ Know the function of each</li> <li>✂ Plants need light, air, water and nutrients to grow</li> <li>✂ Know how water is transported within a plant</li> <li>✂ Know about pollination, seed formation and seed dispersal.</li> </ul>
Y4	<p><b>Living things and their habitats</b></p> <ul style="list-style-type: none"> <li>✂ Name 4 kingdoms of life (plants, animals, fungi and one single cell organism eg monera)</li> <li>✂ Animals are either vertebrates or invertebrates</li> <li>✂ Know all 5 groups of vertebrate</li> <li>✂ That 50% of all living plants and animals are in the rainforest</li> <li>✂ 20% of the world's mammals are endangered</li> </ul>	<p><b>Animals inc humans - Digestion</b></p> <ul style="list-style-type: none"> <li>✂ Name parts of the digestive system</li> <li>✂ The function of the oesophagus +stomach</li> <li>✂ The name of different teeth</li> <li>✂ The function of different teeth</li> <li>✂ Know one food chain</li> </ul>	<p><b>Sound</b></p> <ul style="list-style-type: none"> <li>✂ Sound comes from vibrations</li> <li>✂ It travels from the source to the ear</li> <li>✂ Volume is linked to vibration strength</li> <li>✂ Know how to change pitch</li> <li>✂ What happens to sound as it travel away from the source</li> </ul>	<p><b>Electricity</b></p> <ul style="list-style-type: none"> <li>✂ Can name the basic parts of a circuit</li> <li>✂ A switch opens and closes a circuit</li> <li>✂ Metals are good conductors</li> <li>✂ Name an insulator</li> <li>✂ Explain the meaning of insulators and conductors</li> </ul>	<p><b>Scientists and Inventors</b></p> <ul style="list-style-type: none"> <li>✂ Know David Bellamy was a botanist</li> <li>✂ Know key facts about his life</li> <li>✂ Know he was concerned about the impact of humans on the world</li> <li>✂ Know Tu Youyou was a scientist involved in medicine</li> <li>✂ know key facts about her life (won a Nobel prize)</li> </ul>	<p><b>States of matter</b></p> <ul style="list-style-type: none"> <li>✂ Know there are 3 states of matter</li> <li>✂ That water can turn into a solid and a gas</li> <li>✂ That melting can turn a solid to a liquid</li> <li>✂ To understand evaporation</li> <li>✂ To understand condensation</li> </ul>
Y5	<b>Earth and Space</b>	<b>Living things and</b>	<b>Forces</b>	<b>Scientists and</b>	<b>Animals inc humans</b>	<b>Properties and</b>

	<ul style="list-style-type: none"> <li>✂ Know the Earth orbits the sun</li> <li>✂ Know how the moon moves in relation to the Earth</li> <li>✂ Know how day and night are created</li> <li>✂ Know the Earth, Sun and Moon are spherical</li> <li>✂ know how a total eclipse occurs</li> </ul>	<p><b>their habitats</b></p> <ul style="list-style-type: none"> <li>✂ know that mammals give birth to live young</li> <li>✂ know that amphibians, insects and birds lay eggs</li> <li>✂ Know and explain pollination</li> <li>✂ Know and explain fertilisation</li> <li>✂ know two different methods of seed dispersal</li> </ul>	<ul style="list-style-type: none"> <li>✂ Know what gravity is and how it impacts our lives</li> <li>✂ Know the effect of air resistance</li> <li>✂ Know the effect of water resistance</li> <li>✂ Know the effect of friction</li> <li>✂ know that levers and gears increase the effect of a small force</li> </ul>	<p><b>inventors</b></p> <ul style="list-style-type: none"> <li>✂ Know that Rosalind Franklin was a British chemist</li> <li>✂ Know she was the first to discover DNA</li> <li>✂ Know a key fact about the life of Katherine Johnson</li> <li>✂ Know a fact about her work</li> </ul>	<ul style="list-style-type: none"> <li>✂ know the key life points of a human (birth to old age)</li> <li>✂ say how babies develop from 0-1</li> <li>✂ Explain how puberty affects boys</li> <li>✂ Explain how puberty affects girls</li> <li>✂ Explain changes in old age</li> </ul>	<p><b>changes of materials</b></p> <ul style="list-style-type: none"> <li>✂ Know some materials dissolve in a liquid to form a solution</li> <li>✂ Know and explain soluble</li> <li>✂ Know that some mixtures can be separated</li> <li>✂ Know one method of separation</li> <li>✂ Name one reversible change and one irreversible change</li> </ul>
Y6	<p><b>Animals inc humans</b></p> <ul style="list-style-type: none"> <li>✂ Name the main parts in the human circulatory system</li> <li>✂ Know the function of the heart</li> <li>✂ Know the function of the blood and blood vessels</li> <li>✂ Know the impact of diet, exercise, drugs and lifestyle on health</li> </ul>	<p><b>Light</b></p> <ul style="list-style-type: none"> <li>✂ That light travels in straight lines</li> <li>✂ Light travels from a light source</li> <li>✂ We see objects because they give out light or reflect it into the eye.</li> <li>✂ Shadows form when the light is blocked</li> <li>✂ The light we see from the sun left the sun 10 minutes before we see it</li> </ul>	<p><b>Evolution and inheritance</b></p> <ul style="list-style-type: none"> <li>✂ Evolution is a scientific theory used by biologists</li> <li>✂ Rocks tell us that living things have changed over time</li> <li>✂ Know that animals and plants are different today than a long time ago</li> <li>✂ Know that adaptation is when a living thing has changed to suit its environment</li> </ul>	<p><b>Electricity</b></p> <ul style="list-style-type: none"> <li>✂ That the brightness of the bulb is associated with voltage</li> <li>✂ Know the symbols of a circuit diagram</li> <li>✂ Know how to make a resistor</li> <li>✂ Electricity travels at the speed of light</li> <li>✂ Electricity is an energy that builds up in one place (static) or flows from one place to another (current electricity)</li> </ul>	<p><b>Living things and their habitats</b></p> <ul style="list-style-type: none"> <li>✂ Know how living things have been classified</li> <li>✂ Give reasons for classifying plants and animals</li> <li>✂ Know what a microorganisms is</li> <li>✂ Know how microorganisms are dangerous</li> <li>✂ know how microorganisms can be beneficial</li> </ul>	<p><b>Scientists and inventors</b></p> <p>Jesse Russell Ole Kirk Christiansen</p> <ul style="list-style-type: none"> <li>✂ Know that Jesse Russell was an American engineer</li> <li>✂ Know about his work with mobile communications</li> <li>✂ Know a key fact about the life of Ole Kirk Christiansen</li> <li>✂ Know a fact about his work</li> </ul>

