

KS1 Science Year B

"It is the glory of God to conceal things, but the glory of kings is to search things out." Proverbs 25:2

Seasonal Changes

Autumn Term KS1	Key Knowledge - Encompassed within knowledge mat	Key Vocabulary
<p>NC Objectives</p> <p>To observe changes across the 4 seasons.</p> <p>To observe and describe weather associated with the seasons and how day length varies.</p> <p>Pupils will also observe and talk about changes in the weather and the seasons,</p> <p>Pupils will know it is not safe to look directly at the sun, even when wearing dark places.</p> <p>Pupils will work scientifically by: making tables and charts about the weather and make displays of what happens in the world around them, including day length, as the seasons change.</p>	<ul style="list-style-type: none"> • The four seasons are Spring, Summer, Autumn and Winter. • Summer is usually warm and mild. • Trees prepare for winter during Autumn. • The days get shorter during Autumn. • Winter can be associated with snow and freezing temperatures. • Some animals, like bears hibernate in the Winter. • The seasons don't come at the same time of the year for everyone. For example, when it is Winter in the United Kingdom, Australia is having Summer. This means Christmas in Australia is warm and sunny. • Many animals have their babies in Spring. • During Autumn, leaves change colour and fall from the trees. • During Autumn, some animals adapt to survive Winter by beginning to grow thicker coats and by collecting food. • In Winter, plants and trees stop growing. • The closer a place on Earth is to the sun, the warmer it will be. • Not every country around the world have four seasons. • Some birds migrate when it gets col to warmer countries. • Some land and sea animals also migrate. • Seasons change throughout the year because of the way the Earth travels around the sun. 	<p>Autumn</p> <p>Spring</p> <p>Summer</p> <p>Winter</p> <p>Fall</p> <p>weather</p> <p>temperature</p> <p>thermometer</p> <p>weather symbol</p> <p>deciduous</p> <p>coniferous</p>

Uses of Everyday Materials

Autumn Term KS1	Key Knowledge - Encompassed within knowledge mat	Key Vocabulary
<p>NC Objectives</p> <p>To identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> <p>To find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p> <p>Pupils will identify and discuss the uses of different everyday materials so that they become familiar with how some materials are used for more than one or different materials are used for the same thing.</p> <p>They will think about the properties of materials that make them suitable or unsuitable for particular purposes and they are encouraged to think about unusual and create uses for everyday materials.</p> <p>Pupils will find out about people who have developed useful new materials; for example, John Dunlop, Charles Macintosh or John McAdam.</p> <p>Pupils will work scientifically by: comparing the uses of everyday materials in and around the school with materials found in other places (at home, the journey to school, on visits and in stories, rhymes and songs; observing closely, identifying and classifying the uses of different materials, and recording their observations.</p>	<ul style="list-style-type: none"> • Wood is used to make buildings and furniture and for making fires and heating. • Most of the paper or cardboard we use forms from trees. • Glass is a hard material that can be made in many shapes. • Glass is usually transparent, which means you can see through it, but can also come in different colours. • Glass is often used to make windows and bottles. • When heated, metals can be shaped into anything from a tiny paperclip to a huge aircraft. • Squashing is pushing things closely together. • Bending is changing the shape and direction of something. • To twist something, you move part clockwise and the other part anti-clockwise. • Stretching is making something bigger by pulling it to make it longer. • Metals are strong, hard and they can conduct heat and electricity very well. • To recycle is to use again or to reuse waste material by converting it into something new. • Frosted glass is translucent. • A translucent material lets light pass through, but objects on the other side can't be seen clearly. 	<p>metal</p> <p>plastic</p> <p>Charles Macintosh</p> <p>John Dunlop</p> <p>wood</p> <p>squashing</p> <p>bending</p> <p>twisting</p> <p>stretching</p> <p>John McAdam</p>

Plants (Year 1 Content)

Spring Term KS1	Key Knowledge - Encompassed within knowledge mat	Key Vocabulary
<p>NC Objectives</p> <p>To identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</p> <p>To identify and describe the basic structure of a variety of flowering plants, including trees.</p> <p>Pupils will also use the local environment throughout the year (school garden) to explore and answer questions about plants growing in their habitat.</p> <p>Pupils will observe the growth of flowers and vegetables that they have planted.</p> <p>Pupils will work scientifically by: observing closely, using magnifying glasses, and comparing and contrasting familiar plants; describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants including trees.</p> <p>Pupils will keep records of how plants have changed over time, for example, the buds opening; and compare and contrast what they have found out about different plants.</p>	<ul style="list-style-type: none"> • Some trees can live for thousands of years. • Some plants are carnivores, a well-known example of a carnivorous plant is the Venus flytrap. • Bamboo can be a fast-growing plant. Some types can grow almost a metre in just one day. • Trees help purify the air and provide food and shelter for all sorts of creatures. • Water and nutrients travel up the tree trunk, through the branches and all of the way to the leaves. • An evergreen tree is the name for trees that have leaves all year round. • Deciduous is the name given to trees that lose their leaves in Autumn and are bare in the Winter. • A vegetable is a plant or part of a plant which is used as food; for example, a cabbage or potato. • The trunk of a tree is the main part that grows from the ground to hold the tree sturdy. • Bulbs help store food for a plant and help it grow. • A bud is the part that grows up and holds the plant together. • A petal is a part of the flower and is usually coloured. The colour and its scent attract insects. • Blossom is the flower that comes before the fruit. For example, apple blossom comes before the apple starts to grow. • Wild plants grow naturally for many years. They do not need any person to take care of them. 	<p>buds</p> <p>bulbs</p> <p>deciduous</p> <p>evergreen</p> <p>trunk</p> <p>vegetable</p> <p>wild plants</p> <p>environment</p> <p>blossom</p> <p>petals</p> <p>branches</p>

Plants (Year 2 Content)

Spring Term KS1	Key Knowledge - Encompassed within knowledge mat	Key Vocabulary
<p style="text-align: center;">NC Objectives</p> <p>To observe and describe how seed and bulbs grow into mature plants.</p> <p>To find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p>Pupils will use the local environment throughout the year (school garden) to observe how different plants grow.</p> <p>Pupils will be introduced to the requirements of plants for germination, growth and survival, as well as to the processes of reproduction and growth in plants.</p> <p>Pupils will work scientifically by: observing and recording, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb, or observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy.</p>	<ul style="list-style-type: none"> • Trees and shrubs take in water and carbon dioxide and give out oxygen. • Trees can live for a very long time. The oldest known is over 5,000 years old. • A single tree has many roots. • Roots carry water from the ground through the trunk and branches to the leaves of the tree. • The trunk is the main part of the tree. • The trunk is covered with bark which protects it from damage. • Leaves can be many different shapes. • Leaves take in sunlight and use water and food from the roots to make the tree grow and to reproduce. • As a tree grows, it usually produces growth rings as new wood and is laid down around the old wood. • Oxygen is used by animals and plants in the respiration (breathing) process. • A woodland is a habitat where trees are the dominant plant form. • Common trees found in the UK are: oak, horse chestnut, conifer and willow trees. • Branches spread the leaves out as far as they can, so the leaves can get the most sunlight possible. • The California redwood is the tallest tree on Earth. They usually grow over 90 metres. 	<p>roots</p> <p>crown</p> <p>deciduous</p> <p>evergreen</p> <p>blossom</p> <p>bulb</p> <p>trunk</p> <p>stem</p> <p>woodland</p> <p>habitat</p> <p>oxygen</p>