

Below outlines the learning focus for each term

Key stage 1 programme of study – years 1 and 2

#### Working scientifically

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- Gathering and recording data to help in answering questions.

#### Plants

- identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
- identify and describe the basic structure of a variety of common flowering plants, including trees

#### Animals, including humans

- identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
- identify and name a variety of common animals that are carnivores, herbivores and omnivores
- describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)
- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

#### Everyday Materials

- distinguish between an object and the material from which it is made
- identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
- describe the simple physical properties of a variety of everyday materials
- Compare and group together a variety of everyday materials on the basis of their simple physical properties.

#### Seasonal changes

- observe changes across the four seasons
- observe and describe weather associated with the seasons and how day length varies

Term	Learning Focus		Cross Curricular Links
	Knowledge	Skills	
Autumn 1	<p><b>Our Body</b></p> <ul style="list-style-type: none"> <li>I can identify, name, draw and label the basic parts of the human body</li> <li>I know what parts of our body we use to perform different activities</li> <li>I know the five senses and the related body part</li> <li>I know that sounds can be very different, some loud and some quiet.</li> <li>I know that the sense of touch is used to compare different textures</li> <li>I know that the nose is used to smell</li> <li>I know that there are different tastes (sour, sweet, salty)</li> </ul>	<ul style="list-style-type: none"> <li>I can use observations and my ideas to suggest answers to questions about what parts of our bodies we use for different activities</li> <li>I can identify and classify objects according to their texture</li> <li>I can make a simple prediction about smells</li> <li>I can gather and record data to help in answering questions about tastes</li> </ul>	<p><b>Link to Music – To be able to listen with concentration and understanding to a range of high-quality live and recorded music</b></p>
Autumn 2	<p><b>Everyday materials</b></p> <ul style="list-style-type: none"> <li>I know the name of a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</li> <li>I know what material an object is made from</li> <li>I know some properties of materials (hard, soft, stretchy, stiff, shiny, dull, rough, smooth, flexible)</li> <li>I know that some materials suit certain objects / tasks better than others</li> <li>I know what 'waterproof' means</li> <li>I know , and can name, some materials that are waterproof</li> </ul>	<ul style="list-style-type: none"> <li>I can identify and classify objects and materials</li> <li>I can ask simple questions and recognise that they can be answered in different ways (verbally, visually, labelling, writing)</li> <li>I can perform a simple test to discover the 'best' material for a task</li> <li>I can use my knowledge to make a simple predictions</li> </ul>	<p><b>Math – grouping / classifying</b></p>
Spring 1	<p><b>Changing seasons</b></p> <ul style="list-style-type: none"> <li>I know the four seasons</li> <li>I know what types of weather are associated with the seasons</li> <li>I know what a weather station is and what it is used for</li> <li>I know that the length of 'day light hours' changes depending on the season</li> <li>I know how animals can be affected by the seasons - hibernation</li> </ul>	<ul style="list-style-type: none"> <li>I can use observations and my ideas to suggest answers to questions about weather in relation to the seasons</li> <li>I can observe weather using simple equipment</li> <li>I can gather and record weather (temperature, rain, wind direction)data to help in answering questions</li> </ul>	<p><b>Math – measure &amp; data handling</b></p>

Spring 2	<b>Identifying Animals</b> <ul style="list-style-type: none"> <li>• I know and can name a variety of common animals including fish, amphibians, reptiles, birds and mammals</li> <li>• I know the common names of some fish, amphibians, reptiles, birds and mammals</li> <li>• I can describe common animal features (body parts)</li> <li>• I know that some animals are kept as pets</li> <li>• I know what carnivores, herbivores and omnivores are</li> <li>• I know how to take care of animals</li> </ul>	<ul style="list-style-type: none"> <li>• I can use observations to compare and contrast animals through photographs</li> <li>• I can ask simple questions and recognise that they can be answered in different ways</li> <li>• I can identify and classify animals using some of their characteristics generating my own criteria</li> <li>• I can gather and record data to help in answering questions about what animals eat</li> </ul>	<b>Math – grouping / classifying</b>
Summer	<b>Plants</b> <ul style="list-style-type: none"> <li>• I know and can name some common wild and garden plants</li> <li>• I know what deciduous and evergreen trees mean</li> <li>• I know the different, simple parts of a plant</li> <li>• I know what a plant needs to grow</li> <li>• I know why some people grow plants</li> <li>• I know what a magnifying glass is and what it is used for</li> <li>• I know the basic structure of a variety of common flowering plants, including trees.</li> <li>• I know and can use vocabulary linked to plants (leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem)</li> </ul>	<ul style="list-style-type: none"> <li>• I can use observations and my ideas to suggest answers to questions about plant classification</li> <li>• I can observe closely how plants have changed over time</li> <li>• I can gather and record data to help in answering questions</li> <li>• I can group plants based on simple features and explain my choices using my scientific knowledge</li> <li>• I can compare and contrast familiar plants; describing how they were able to identify and group</li> </ul>	<b>English – writing explanation</b>

**Intent**

At Camrose we recognise the importance of Science in every aspect of daily life and want our children to be naturally curious about the world around them. Our curriculum has been developed by staff to ensure full coverage of the National Curriculum; key skills are also mapped for each year group and are progressive throughout the school.

Throughout our school children are encouraged to develop and use a range of working scientifically skills including questioning, researching and observing for ourselves. The curriculum is designed to ensure that children are able to acquire key scientific knowledge through practical experiences; using equipment, conducting experiments, building arguments and explaining concepts confidently. Scientific language is to be taught and built upon as topics are revisited in different year groups and across key stages. We intend to provide all children regardless of ethnic origin, gender, class, aptitude or disability with a broad and balanced science curriculum.

**Implementation**

Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science. Our whole school approach to the teaching and learning of science involves the following:

- Through our planning, we involve problem solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom. Planning involves teachers creating engaging lessons, often involving high-quality resources to aid understanding of conceptual knowledge. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning, so that all children keep up.
- We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.
- Working Scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in-keeping with the topics.
- Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning and workshops with experts.

### **Impact**

We ensure our children not only acquire the appropriate age related knowledge linked to the science curriculum, but also skills which equip them to progress from their starting points, and within their everyday lives.

All children will have:

- A wider variety of skills linked to scientific knowledge and understanding, and scientific enquiry/investigative skills.
- A richer vocabulary which will enable to articulate their understanding of taught concepts.
- High aspirations, which will see them through to further study, work and a successful adult life.