

Year 1		
Autumn	Spring	Summer
<p><b><u>Every Day Materials</u></b></p> <p>Distinguish between an object and the material from which it is made</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p>Describe the simple physical properties of a variety of everyday materials</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p>	<p><b><u>Animals, including humans.</u></b></p> <p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores</p> <p>Describe and Compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</p> <p>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p>	<p><b><u>Plants</u></b></p> <p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</p> <p>Identify and Describe the basic structure of a variety of common flowering plants, including trees.</p> <p><b><u>Seasonal Changes</u></b></p> <p>Observe changes across the four seasons</p> <p>Observe and Describe weather associated with the seasons and how day length varies.</p>

Year 1 Skills			
Planning and Communication and Sources	Enquiring and Testing and Obtaining and Presenting Evidence	Observing and Recording	Considering Evidence and Evaluating
<p>I can draw simple pictures and talk about what they see and do</p> <p>I can use simple charts to communicate findings</p> <p>I can identify key features</p> <p>ask questions</p>	<p>I can test ideas suggested to me</p> <p>I can say what I think will happen</p> <p>I can use first hand experiences to answer questions</p> <p>I can begin to compare some living things</p>	<p>I can make observations using appropriate senses</p> <p>I can record observations communicate</p> <p>I can record observations orally, in drawing, labelling, simple writing and using ICT</p>	<p>I can make simple comparisons and groupings</p> <p>I can say what has happened and say and whether what has happened was expected</p>

Year 2

Autumn	Spring	Summer
<p><b><u>Living things and their habitats</u></b></p> <p>Explore and Compare the differences between things that are living, dead, and things that have never been alive</p> <p>Identify that most living things live in habitats to which they are suited and Describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats</p> <p>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and Identify and name different sources of food.</p>	<p><b><u>Plants</u></b></p> <p>Explore and Compare the differences between things that are living, dead, and things that have never been alive</p> <p>Identify that most living things live in habitats to which they are suited and</p> <p>Describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats</p> <p>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and Identify and name different sources of food.</p>	<p><b><u>Animals including humans</u></b></p> <p>Notice that animals, including humans, have offspring which grow into adults</p> <p>Find out about and Describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p> <p><b><u>Use of Everyday Materials</u></b></p> <p>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>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>

**Year 2 Skills**

<b>Planning and Communication and Sources</b>	<b>Enquiring and Testing and Obtaining and Presenting Evidence</b>	<b>Observing and Recording</b>	<b>Considering Evidence and Evaluating</b>
<p>I can describe my observations using some scientific vocabulary.                      I can use a range of simple texts to find information.                      I can suggest how to find things Out.                      I can identify key features and ask questions.</p>	<p>I can use simple equipment provided to aid observation.                      I can compare objects, living things or events.                      I can make observations relevant to my task                      I can begin to recognise when a test or comparison is unfair.                      I can use first hand experiences to answer questions.</p>	<p>I can respond to questions asked by the teacher.                      I can ask questions collect and record data (supported by the teacher).                      I can suggest how I could collect data to answer questions.                      I can begin to select equipment from a limited range.</p>	<p>I can say what has happened.                      I can say what my observations show and whether it was what I expected.                      I can begin to draw simple conclusions and explain what I did.                      I can begin to suggest improvements in my work.</p>

Year 3

Autumn	Spring	Summer
<p><b><u>Plants</u></b> Identify and Describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</p> <p>Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant</p> <p>Investigate the way in which water is transported within plants</p> <p>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p>	<p><b><u>Animals Including Humans</u></b> Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat</p> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p> <p><b><u>Forces and Magnets</u></b></p> <p>Compare how things move on different surfaces</p> <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance</p> <p>Observe how magnets attract or repel each other and attract some materials and not others</p> <p>Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and Identify some magnetic materials</p> <p>Describe magnets as having two poles</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are facing.</p>	<p><b><u>Rocks</u></b> Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>Recognise that soils are made from rocks and organic matter.</p> <p><b><u>Light</u></b></p> <p>Recognise that they need light in order to see things and that dark is the absence of light</p> <p>Notice that light is reflected from surfaces</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>Recognise that shadows are formed when the light from a light source is blocked by a solid object</p> <p>Find patterns in the way that the size of shadows change.</p>

**Year 3 Skills**

<b>Planning and Communication and Sources</b>	<b>Planning and Communication and Sources</b>	<b>Planning and Communication and Sources</b>	<b>Planning and Communication and Sources</b>
<p>I can use pictures, writing, diagrams and tables as directed by my teacher.</p> <p>I can use simple texts, directed by the teacher, to find information.</p> <p>I can record my observations in written, pictorial and diagrammatic forms.</p> <p>I can select the appropriate format to record my observations.</p>	<p>I can put forward own ideas about how to find the answers to questions.</p> <p>I can recognise the need to collect data to answer questions.</p> <p>I can carry out a fair test with support.</p> <p>I can recognise and explain why it is a fair test.</p> <p>I can , with help, begin to realise that scientific ideas are based on evidence.</p>	<p>I can make relevant observations.</p> <p>I can measure using given equipment.</p> <p>I can select equipment from a limited range.</p>	<p>I can begin to offer explanations for what I see and communicate in a scientific way what I have found out.</p> <p>I can begin to identify patterns in recorded measurements.</p> <p>I can suggest improvements in my work.</p> <p>I can evaluate my findings.</p>

Year 4		
Autumn	Spring	Summer
<p><b><u>Living things and their habitats</u></b> Recognise that living things can be grouped in a variety of ways</p> <p>Explore and use classification keys to help group, Identify and name a variety of living things in their local and wider environment</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things.</p> <p><b><u>Sound</u></b></p> <p>Identify how sounds are made, associating some of them with something vibrating</p> <p>Recognise that vibrations from sounds travel through a medium to the ear</p> <p>Find patterns between the pitch of a sound and features of the object that produced it</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced.</p> <p>Recognise that sounds get fainter as the distance from the sound source increases.</p>	<p><b><u>Animals including humans</u></b></p> <p>Describe the simple functions of the basic parts of the digestive system in humans</p> <p>Identify the different types of teeth in humans and their simple functions</p> <p><b>Construct</b> and interpret a variety of food chains, Identifying producers, predators and prey.</p> <p><b><u>Electricity</u></b></p> <p>Identify common appliances that run on electricity</p> <p>Construct a simple series electrical circuit, Identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <p>Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery</p> <p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</p> <p>Recognise some common conductors and insulators, and associate metals with being good conductors.</p>	<p><b><u>States of Matter</u></b></p> <p>Compare and group materials together, according to whether they are solids, liquids or gases</p> <p>Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>

**Year 4 Skills**

<b>Planning and Communication and Sources</b>	<b>Enquiring and Testing and Obtaining and Presenting Evidence</b>	<b>Observing and Recording</b>	<b>Considering Evidence and Evaluating</b>
<p>I can record observations, comparisons and measurements using tables and bar charts.                      I can begin to plot points to form a simple graph.                      I can use graphs to point out and interpret patterns in my data.                      I can select information from a range of sources provided for me.</p>	<p>I can, with help, begin to realise that scientific ideas are based on evidence.                      I can show in the way I perform my tasks how to vary one factor while keeping others the same.                      I can decide on an appropriate approach in my own investigations to answer questions.                      I can describe which factors I am varying and which will remain the same and say why.</p>	<p>I can carry out measurement accurately.                      I can make a series of observations, comparisons and measurements.                      I can select and use suitable equipment.                      I can make a series of observations and measurements adequate for the task.</p>	<p>I can predict outcomes using previous experience and knowledge and compare with actual results.                      I can begin to relate my conclusions to scientific knowledge and understanding.                      I can suggest improvements in my work, giving reasons.</p>

Year 5		
Autumn	Spring	Summer
<p><b><u>Living things and their habitats.</u></b></p> <p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>Describe the life process of reproduction in some plants and animals.</p> <p><b><u>Earth and Space</u></b></p> <p>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system</p> <p>Describe the movement of the Moon relative to the Earth</p> <p>Describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p>	<p><b><u>Animals including humans</u></b></p> <p>Describe the changes as humans develop to old age.</p> <p><b><u>Forces</u></b></p> <p>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p>	<p><b><u>Properties and change of materials</u></b></p> <p>Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</p> <p>Know that some materials will dissolve in liquid to form a solution, and Describe how to recover a substance from a solution</p> <p>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</p> <p>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes</p> <p>Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.</p>

**Year 5 Skills**

<b>Planning and Communication and Sources</b>	<b>Enquiring and Testing and Obtaining and Presenting Evidence</b>	<b>Observing and Recording</b>	<b>Considering Evidence and Evaluating</b>
<p>I can record observations systematically.</p> <p>I can use appropriate scientific language and conventions to communicate quantitative and qualitative data.</p> <p>I can select a range of appropriate sources of information including books, internet and CD Rom.</p>	<p>I can use previous knowledge and experience combined with experimental evidence to provide scientific explanations.</p> <p>I can recognise the key factors to be considered in carrying out a fair test.</p>	<p>I can make a series of observations, comparisons and measurements with increasing precision.</p> <p>I can select apparatus for a range of tasks.</p> <p>I can plan to use apparatus effectively.</p> <p>I can begin to make repeat observations and measurements systematically.</p>	<p>I can make predictions based on my scientific knowledge and understanding.</p> <p>I can draw conclusions that are consistent with the evidence.</p> <p>I can relate evidence to scientific knowledge and understanding.</p> <p>I can offer simple explanations for any differences in my results.</p> <p>I can make practical suggestions about how my working methods could be improved.</p>

Year 6

Autumn	Spring	Summer
<p><b><u>Living things and their habitats.</u></b></p> <p>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</p> <p>Give reasons for classifying plants and animals based on specific characteristics.</p> <p><b><u>Light</u></b></p> <p>Recognise that light appears to travel in straight lines</p> <p>Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye</p> <p>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>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><b><u>Animals including humans.</u></b></p> <p>Identify and name the main parts of the human circulatory system, and Describe the functions of the heart, blood vessels and blood</p> <p>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans.</p> <p><b><u>Electricity</u></b></p> <p>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p>Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</p> <p>Use-recognised symbols when representing a simple circuit in a diagram.</p>	<p><b><u>Evolution and inheritance</u></b></p> <p>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>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>

**Year 6 Skills**

<b>Planning and Communication and Sources</b>	<b>Enquiring and Testing and Obtaining and Presenting Evidence</b>	<b>Observing and Recording</b>	<b>Considering Evidence and Evaluating</b>
<p>I can choose scales for graphs which show data and features effectively.</p> <p>I can identify measurements and observations which do not fit into the main pattern.</p> <p>I can begin to explain anomalous data.</p> <p>I can use appropriate ways to communicate quantitative data using scientific language.</p>	<p>I can describe evidence for a scientific idea.</p> <p>I can use scientific knowledge to identify an approach for an investigation.</p> <p>I can explain how the interpretation leads to new ideas.</p>	<p>I can measure quantities with precision using fine – scale divisions.</p> <p>I can select and use information effectively.</p> <p>I can make enough measurements or observations for the required task.</p>	<p>I can make reasoned suggestions on how to improve working methods.</p> <p>I can show how interpretation of evidence leads to new ideas.</p> <p>I can explain conclusions, showing understanding of scientific ideas.</p>