



## Corporation Road Community Primary School

### Science LTP

<b>Science: Year 1/2A</b>	
<b>Vision:</b> At Corporation Road, we believe that by studying science, children will develop a sense of the world around them and how it works. We aim to use science as a tool to help children work together and begin to build the collaborative skills that they will continue to use as they grow older. Our curriculum aims to teach our pupils about the natural world as well as imparting the knowledge that they can take into their secondary education. We strongly believe that learning is better when it is kept simple and through discussions, demonstrations, experiences and 'hands on' learning', children will be better prepared to retain the knowledge and skills that they have been taught.	
<b>Domains</b>	<b>Key Concepts</b>
Earth and Space	Identifying and Naming, Moons, Spherical Bodies, Day and Night, Day Length and the Seasons,
Light and Sound	Identifying and Naming, Phenomena, Physical Processes, Classifying, Comparing and Safety
Seasonal Changes	Identifying and Naming, Effects of the Weather, Recording the Weather, The Seasons and Day Length
Forces	Identifying and Naming, Physical Processes, Phenomena, Testing, Comparing and Classification
Electricity	Identifying and Naming, Series Circuits, Circuit Symbols, Current and Voltage, Conductors and Insulators and Safety
Substance, Matter and Materials	Identifying and Naming, Classification, Uses, Physical Processes, Physical Properties and Comparisons
Plants	Identifying and Naming, Classification, Plant Parts and Their Functions, Habitats and Adaptation, Growth and Survival, Life Cycles, Seasonal Changes and Comparisons
Animals Including Humans	Identifying and Naming, Classification, Habitats, Adaptation and Interdependence, Growth, Health and Survival, Diet and Teeth, The Body, Life Cycles and Comparing
Evolution and Inheritance	Identifying and Naming, Inheritance, Evolution, Adaptation, Fossils and The Future
Working Scientifically	Asking and Answering Questions, Investigating, Observing, Equipment and Measuring, Identifying and Classifying, Recording and Reporting on Findings, Analysing Data and Drawing Conclusions
<b>Ongoing (beginning/end of each term)</b>	
<b>Domain: Seasonal Changes</b>	
<b>Key Concepts:</b> <ul style="list-style-type: none"> <li>- Identifying and Naming</li> <li>- Effects of Weather</li> <li>- Recording the Weather</li> <li>- The Seasons</li> <li>- Day Length</li> </ul>	<b>End Point:</b> <b>Physics</b> The end-point for physics is that children know that it is the study of things around them as well as energy and forces. Children should name and be able to identify the eight planets of the solar system. From their learning, children will understand the force of gravity and as well as how other forces work on objects moving through the air, water and along a surface. Our children will learn how to create simple circuits and understand key terms such as current and voltage. Finally, children will have a working understanding of light and sound.
<b>Year 1</b>	<b>Year 2</b>
<ul style="list-style-type: none"> <li>- Name a range of different types of weather from pictures or sounds.</li> <li>- Describe some positive and negative effects of the weather for ourselves and our environment.</li> <li>- Observe and record the daily weather on a chart or in a table.</li> <li>- Broadly assign different weather types to seasons.</li> <li>- Describe how day length changes over a year, from experience and know how it affects their lives.</li> </ul>	<ul style="list-style-type: none"> <li>- Identify less familiar weather conditions that are more common in other parts of the world.</li> <li>- Explain how and why the weather influences our choice of clothing and affects what we can do.</li> <li>- Identify patterns and similarities and differences within recorded weather over a given period of time.</li> <li>- Explain how animals or plants are affected by the seasons, using a specific animal or plant as an example.</li> <li>- Make comparisons to other parts of the world where day length changes to a greater or lesser degree, such as Arctic or equatorial regions.</li> </ul>
<b>Domain: Working Scientifically</b>	
<b>Key Concepts:</b> <ul style="list-style-type: none"> <li>- Asking and Answering Questions</li> <li>- Investigating</li> </ul>	

		<ul style="list-style-type: none"><li>- Identifying and Classifying</li><li>- Recording and Reporting on Findings</li><li>- Analysing Data</li><li>- Drawing Conclusions</li></ul>		<b>End Point:</b> <b><u>Working Scientifically</u></b> The end-point for working scientifically involves the children being able to apply a number of skills when completing an experiment or an investigation independently. These skills involve the children being able to take accurate measurements when using different scientific equipment. When explaining their findings, children should be able to use the correct scientific language to demonstrate their understanding. For children to develop as scientists, they will be able to identify the dependent and independent variables and understand what these terms means. Finally, they will be able to have the knowledge and ability to record data and results using the appropriate recording tool.	
Autumn		Spring		Summer	
Domain: Animals Including Humans		Domain: Substance, Matter and Materials		Domain: Plants	
<b>Key Concepts:</b> <ul style="list-style-type: none"><li>- Identifying and Naming</li><li>- Classification</li><li>- Habitats, Adaptation and Interdependence</li><li>- Growth, Health and Survival</li><li>- Diet and Teeth</li><li>- The Body</li><li>- Life Cycles</li><li>- Comparing</li></ul>		<b>Key Concepts:</b> <ul style="list-style-type: none"><li>- Identifying and Naming</li><li>- Classification</li><li>- Uses</li><li>- Physical Processes</li><li>- Physical Properties</li><li>- Comparisons</li></ul>		<b>Key Concepts:</b> <ul style="list-style-type: none"><li>- Identifying and Naming</li><li>- Classification</li><li>- Plant Parts and Their Functions</li><li>- Habitats and Adaptation</li><li>- Growth and Survival</li><li>- Life Cycles</li><li>- Seasonal Changes</li><li>- Comparisons</li></ul>	
<b>End Point:</b> <b><u>Biology</u></b> The end-point for biology at Corporation Road is for our children to understand that it is the study of life and living things. We want our children to be able to name a range of animals and plant life from their local environment but also the wider world. Building upon this, children will also be able to know the difference between vertebrates and invertebrates and be able to identify them and their features. Additionally, through their studies, children should understand the concept of adaption and why it is important for a species to survive. Finally, we want our children to understand evolution and be able to give examples where this has taken place in an animal or plant species.		<b>End Point:</b> <b><u>Chemistry</u></b> The end-point for chemistry at Corporation Road is for our children to understand that it is the study of what everything is made of and how it works. We want children to be able to understand the difference between a solid, a liquid and a gas and be able to name examples of them independently. Children should know the names of different physical properties of materials and identify how this can impact on how a material is used in everyday life. Finally, children should know how these different materials help during physical processes.		<b>End Point:</b> <b><u>Biology</u></b> The end-point for biology at Corporation Road is for our children to understand that it is the study of life and living things. We want our children to be able to name a range of animals and plant life from their local environment but also the wider world. Building upon this, children will also be able to know the difference between vertebrates and invertebrates and be able to identify them and their features. Additionally, through their studies, children should understand the concept of adaption and why it is important for a species to survive. Finally, we want our children to understand evolution and be able to give examples where this has taken place in an animal or plant species.	
Year 1	Year 2	Year 1	Year 2	Year 1	Year 2
<ul style="list-style-type: none"><li>- Identify and name a range of common animals from the local and wider environment.</li><li>- Classify and sort familiar animals according to whether they are invertebrates, fish, amphibians, reptiles, birds or mammals.</li><li>- Name animals living in a range of familiar environments, such as their homes, woodland or school grounds.</li><li>- Explain how to take care of an animal from the local habitat.</li><li>- Identify whether an animal is a carnivore, herbivore or omnivore and how we might know this from their physical appearance.</li><li>- Draw and label basic parts of the human body, including those related to the senses.</li></ul>	<ul style="list-style-type: none"><li>- Name and match animals to their offspring.</li><li>- Sort and classify things according to whether they are dead, alive or have never been alive.</li><li>- Define the terms ‘habitat’ and ‘micro-habitat’, giving examples of animals that live in each place.</li><li>- Identify the basic needs of animals and humans for survival, including good nutrition and regular exercise.</li><li>- Construct a simple food chain that includes humans as the top consumer.</li><li>- Explain simply how humans and some familiar animals change as they grow.</li><li>- Recognise the need for animals and humans to grow and reproduce. Describe the life cycles of some common animals and humans.</li></ul>	<ul style="list-style-type: none"><li>- Name a range of everyday materials, including wood, plastic, metal, rock and glass.</li><li>- Group and sort materials according to their simple physical properties.</li><li>- Identify the material an object is made from, suggesting why it is made from that material.</li><li>- Identify some materials that help physical processes (e.g. woollen fabric keeps us warm).</li><li>- Describe properties of a material using everyday language or simple scientific vocabulary (e.g. hard/soft or bendy/not bendy).</li><li>- Compare two or more different materials for their performance at a particular task (e.g. mopping up a spill).</li></ul>	<ul style="list-style-type: none"><li>- Identify the uses of everyday materials in a familiar location (e.g. school or home), recording their findings.</li><li>- Sort and grade a range of materials for a specific property (e.g. smoothness).</li><li>- Identify and describe the range of materials that can be used to make a single given object (e.g. cup, chair, table or shelter).</li><li>- Describe how the shape of some materials can be changed by twisting, bending, squashing or stretching.</li><li>- Relate a material’s physical properties to its uses (e.g. describe or demonstrate how a material can be unsuitable for a given task due to its ability to be changed by squashing and bending).</li></ul>	<ul style="list-style-type: none"><li>- Identify and name common flowers and trees found growing in the locality.</li><li>- Sort trees into groups to show those that are evergreen and those that are deciduous.</li><li>- Identify the basic structural parts of common flowering plants and trees, including root, stem, stalk, leaves, flowers, bulb, fruit, seeds and trunk.</li><li>- Identify their locality as a habitat for living things.</li><li>- Care for a growing seedling, observing and describing its growth.</li><li>- Identify the seeds, as a part of a plant, that makes a whole new plant.</li><li>- Describe how plants change over time, including seasonal change (leaves fall off, blossom, buds opening).</li></ul>	<ul style="list-style-type: none"><li>- Identify what eats plants as a food source and recognise simple food chains.</li><li>- Sort seeds and bulbs into groups according to physical features.</li><li>- Describe the different plant parts and give examples of different foods that we eat which are derived from these plant parts, for example rhubarb (stem), carrot (root).</li><li>- Explain how plants are suited to their habitats and give examples of plants growing in different habitats.</li><li>- Describe how plants grow, identifying what a plant needs for healthy growth and survival.</li><li>- Recognise that plants produce seeds in order to reproduce and generate new plants.</li><li>- Describe how bulbs help plants to grow in winter.</li></ul>

<ul style="list-style-type: none"><li>- Describe in simple terms the life cycle of a familiar animal such as a frog, butterfly or human.</li><li>- Compare animals that are kept as pets, knowing which group they belong to.</li></ul>	<ul style="list-style-type: none"><li>- Compare the living things in familiar habitats with the living things in a less familiar habitat.</li></ul>		<ul style="list-style-type: none"><li>- Compare significant individuals who have developed useful materials (e.g. Charles Macintosh or John Dunlop) and decide which individual's material is of most use to them.</li></ul>	<ul style="list-style-type: none"><li>- Name, compare and contrast familiar plants according to their observable features.</li></ul>	<ul style="list-style-type: none"><li>- Make comparisons between seeds or bulbs grown in different conditions (e.g. with and without light or water).</li></ul>
Domain: Working Scientifically					
<p><b>Key Concepts:</b></p> <ul style="list-style-type: none"><li>- Asking and Answering Questions</li><li>- Investigating</li><li>- Observing</li><li>- Identifying and Classifying</li><li>- Recording and Reporting on Findings</li><li>- Analysing Data</li><li>- Drawing Conclusions</li></ul>	<p><b>Key Concepts:</b></p> <ul style="list-style-type: none"><li>- Asking and Answering Questions</li><li>- Investigating</li><li>- Identifying and Classifying</li><li>- Recording and Reporting on Findings</li><li>- Drawing Conclusions</li></ul>	<p><b>Key Concepts:</b></p> <ul style="list-style-type: none"><li>- Asking and Answering Questions</li><li>- Investigating</li><li>- Observing</li><li>- Equipment and Measuring</li><li>- Identifying and Classifying</li><li>- Recording and Reporting on Findings</li><li>- Analysing Data</li><li>- Drawing Conclusions</li></ul>	<p><b>Key Concepts:</b></p> <ul style="list-style-type: none"><li>- Asking and Answering Questions</li><li>- Investigating</li><li>- Equipment and Measuring</li><li>- Identifying and Classifying</li><li>- Recording and Reporting on Findings</li><li>- Drawing Conclusions</li></ul>	<p><b>Key Concepts:</b></p> <ul style="list-style-type: none"><li>- Asking and Answering Questions</li><li>- Investigating</li><li>- Observing</li><li>- Identifying and Classifying</li><li>- Recording and Reporting on Findings</li><li>- Analysing Data</li><li>- Drawing Conclusions</li></ul>	<p><b>Key Concepts:</b></p> <ul style="list-style-type: none"><li>- Asking and Answering Questions</li><li>- Investigating</li><li>- Identifying and Classifying</li><li>- Recording and Reporting on Findings</li><li>- Analysing Data</li><li>- Drawing Conclusions</li></ul>
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<ul style="list-style-type: none"><li>- Use everyday language/begin to use simple scientific words to ask or answer a scientific question.</li><li>- Follow instructions to complete a simple test individually or in a group.</li><li>- Observe objects, materials and living things and describe what they see.</li><li>- Sort and group objects, materials and living things, with help, according to simple observational features.</li><li>- Talk about their findings and explain what they have found out.</li><li>- Use everyday or simple scientific language to ask and/or answer a question on given data.</li><li>- Explain, with help, what they think they have found out.</li></ul>	<ul style="list-style-type: none"><li>- Suggest ideas, ask simple questions and know that they can be answered/investigated in different ways including simple secondary sources, such as books and video clips.</li><li>- Do things in the correct order when performing a simple test and begin to recognise when something is unfair.</li><li>- Use simple equipment, such as hand lenses or egg timers to take measurements, make observations and carry out simple tests.</li><li>- Decide, with help, how to group materials, living things and objects, noticing changes over time and beginning to see patterns.</li><li>- Gather data, record and talk about their findings, in a range of ways, using simple scientific vocabulary.</li><li>- Use simple scientific language to explain what they have found out.</li></ul>	<ul style="list-style-type: none"><li>- Use everyday language/begin to use simple scientific words to ask or answer a scientific question.</li><li>- Follow instructions to complete a simple test individually or in a group.</li><li>- Observe objects, materials and living things and describe what they see.</li><li>- Use simple, non-standard measurements in a practical task.</li><li>- Sort and group objects, materials and living things, with help, according to simple observational features.</li><li>- Talk about their findings and explain what they have found out.</li><li>- Use everyday or simple scientific language to ask and/or answer a question on given data.</li><li>- Explain, with help, what they think they have found out.</li><li>- Use simple scientific language to explain what they have found out.</li></ul>	<ul style="list-style-type: none"><li>- Suggest ideas, ask simple questions and know that they can be answered/investigated in different ways including simple secondary sources, such as books and video clips.</li><li>- Do things in the correct order when performing a simple test and begin to recognise when something is unfair.</li><li>- Use simple equipment, such as hand lenses or egg timers to take measurements, make observations and carry out simple tests.</li><li>- Decide, with help, how to group materials, living things and objects, noticing changes over time and beginning to see patterns.</li><li>- Gather data, record and talk about their findings, in a range of ways, using simple scientific vocabulary.</li><li>- Use simple scientific language to explain what they have found out.</li></ul>	<ul style="list-style-type: none"><li>- Use everyday language/begin to use simple scientific words to ask or answer a scientific question.</li><li>- Follow instructions to complete a simple test individually or in a group.</li><li>- Observe objects, materials and living things and describe what they see.</li><li>- Sort and group objects, materials and living things, with help, according to simple observational features.</li><li>- Talk about their findings and explain what they have found out.</li><li>- Use everyday or simple scientific language to ask and/or answer a question on given data.</li><li>- Explain, with help, what they think they have found out.</li></ul>	<ul style="list-style-type: none"><li>- Suggest ideas, ask simple questions and know that they can be answered/investigated in different ways including simple secondary sources, such as books and video clips.</li><li>- Do things in the correct order when performing a simple test and begin to recognise when something is unfair.</li><li>- Use simple equipment, such as hand lenses or egg timers to take measurements, make observations and carry out simple tests.</li><li>- Decide, with help, how to group materials, living things and objects, noticing changes over time and beginning to see patterns.</li><li>- Gather data, record and talk about their findings, in a range of ways, using simple scientific vocabulary.</li><li>- Identify simple patterns and/or relationships using simple comparative language.</li><li>- Use simple scientific language to explain what they have found out.</li></ul>