



Corporation Road Community Primary School

Science LTP

Science: Year 6				
Vision: 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.				
Domains		Key Concepts		
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		
Autumn 1	Autumn 2	Spring 1	Spring 2 & Summer 1	Summer 2
Domain: Animals Including Humans	Domain: Light	Domain: Electricity	Domains: Evolution and Inheritance	Domain: Plants
Key Concepts: <ul style="list-style-type: none"> - Identifying and Naming - Classification - Habitats, Adaptation and Interdependence - Growth, Health and Survival - Diet and Teeth - The Body - Life Cycles - Comparing 	Key Concepts: <ul style="list-style-type: none"> - Identifying and Naming - Phenomena - Physical Processes - Classifying - Comparing - Safety 	Key Concepts: <ul style="list-style-type: none"> - Identifying and Naming - Series Circuits - Circuit Symbols - Current and Voltage - Conductors and Insulators - Safety 	Key Concepts: <ul style="list-style-type: none"> - Identifying and Naming - Inheritance - Evolution - Adaptation - Fossils - The Future 	Key Concepts: <ul style="list-style-type: none"> - Identifying and Naming - Classification - Plant Parts and Their Functions - Habitats and Adaptation - Growth and Survival - Life Cycles - Seasonal Changes - Comparisons
End Point: Biology 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	End Point: Physics 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		End Point: Biology 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	

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.		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.		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.					
<ul style="list-style-type: none">- Identify the major parts of the human circulatory system and their functions.- Recognise the importance of the classification system and its inception, giving reasons for how the groups and subgroups are chosen.- Describe how animals must be adapted to their habitats for survival, using a range of animals and their adaptations as examples.- Recognise and describe the damaging impact that some drugs and other substances can have on the human body.- Explain how nutrients and water are transported within humans and animals.- Describe how lifestyle is important for the health of the human circulatory system, contributing towards a class policy on exercise and diet choices.- Describe how the life cycles of bacteria and viruses differ. Compare scientifically the effect that different exercises have on heart rate, making predictions and measuring heart rate accurately.-		<ul style="list-style-type: none">- Identify parts of the eye and draw a diagram showing how light enters our eyes in order to see, using the correct scientific vocabulary.- Describe how white light can be split using prisms and droplets of water and what colours white light is made from.- Explain how light behaves and travels in straight lines. Demonstrate, using a model or diagram, how this explains why we can see objects and how shadows are formed.- Classify a range of objects or surfaces for their reflective qualities using scientific testing.- Compare how a beam of light changes direction (refraction) when passing through different mediums, such as water and air.- Recognise the dangers of using lasers and how they can be used safely.		<ul style="list-style-type: none">- Identify and name components of a circuit and define terms, such as voltage and current in relation to series circuits.- Work scientifically to construct a series circuit for a specific device or outcome and explain how it works.- Draw a series circuit, using the conventional circuit symbols.- Describe the relationship between the number or voltage of a cell or cells and the effect it has on a bulb or buzzer for example.- Predict materials that could be good conductors of electricity and conduct a fair test to show this.- Demonstrate how to work safely with electrical circuits.		<ul style="list-style-type: none">- Identify features which are inherited from parents, such as eye colour and those that are not, such as tattoos and dyed hair colour.- Match offspring to their parents, linked to observable features and characteristics.- Describe how variation in living things leads to the evolution of a species, using specific examples. Research the work of Darwin or Wallace to explain how the theory of evolution developed.- Identify how specific plants or animals have adapted to their environment.- Explain how fossils are formed and how fossil discoveries have helped develop the theory of evolution.- Suggest ways in which future changes in the world’s climate may impact on ourselves and other living species, and suggest ideas for how we may adapt to these changes.		<ul style="list-style-type: none">- Identify plants which have survived on Earth for millions of years and how we know this.- Devise classification keys to identify plants in the immediate environment. Give reasons for classification and understand the significance of scientists’ work, from study.- Research and describe similarities and differences between petals, leaves, stamen and stigma on a variety of plants found in the locality and elsewhere.- Describe how plants have adapted and ultimately evolved to suit their environments using specific examples.- Suggest why some plants have survived over time and some have not.- Define the plant terms ‘annual’, ‘biennial’ and ‘perrenial’, describing differences in life cycles and identifying plants of each type.- Identify relationships between the seasons and a typical plant life cycle using observations from the school environment.- Compare native plants with non-native plants and determine whether non-native plants can be classified in the same way as native plants.	
Domain: Working Scientifically		Domain: Working Scientifically		Domain: Working Scientifically					
Key Concepts: <ul style="list-style-type: none">- Identifying and Classifying		Key Concepts: <ul style="list-style-type: none">- Asking and Answering Questions- Investigating- Observing- Equipment and Measuring- Recording and reporting on Findings- Analysing Data- Drawing Conclusions		Key Concepts: <ul style="list-style-type: none">- Asking and Answering Questions- Investigating- Observing- Equipment and Measuring- Recording and reporting on Findings- Drawing Conclusions		Key Concepts: <ul style="list-style-type: none">- Identifying and Classifying			
End Point <u>Working Scientifically</u> 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.				End Point <u>Working Scientifically</u> 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.
- Identify and explain patterns seen in the natural environment.	<ul style="list-style-type: none">- Pose/select the most appropriate line of enquiry to investigate scientific questions.- Select and plan the most suitable line of enquiry, explaining which variables need to be controlled and why, in a variety of comparative and fair tests.- Make their own decisions about which observations to make, using test results and observations to make predictions or set up further comparative or fair tests.- Choose the most appropriate equipment in order to take measurements, explaining how to use it accurately. Decide how long to take measurements for, checking results with additional readings.- Choose the most effective approach to record and report results, linking to mathematical knowledge.- Identify and explain causal relationships in data and identify evidence that supports or refutes their findings, selecting fact from opinion.- Identify validity of conclusion and required improvement to methodology. Discuss how scientific ideas develop over time.	<ul style="list-style-type: none">- Pose/select the most appropriate line of enquiry to investigate scientific questions.- Select and plan the most suitable line of enquiry, explaining which variables need to be controlled and why, in a variety of comparative and fair tests.- Make their own decisions about which observations to make, using test results and observations to make predictions or set up further comparative or fair tests- Choose the most appropriate equipment in order to take measurements, explaining how to use it accurately. Decide how long to take measurements for, checking results with additional readings.- Choose the most effective approach to record and report results, linking to mathematical knowledge.- Identify validity of conclusion and required improvement to methodology. Discuss how scientific ideas develop over time.	- Identify and explain patterns seen in the natural environment.

