



The Holy Spirit Catholic Primary School

Long Term Science Planning



Science Intent

In Science, we inspire pupils with a curiosity and fascination about the world around them. We will develop their scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics. We will develop their scientific language, enabling children to talk about their methods and explain their findings and conclusions. The curriculum will motivate them to become effective communicators of scientific ideas, facts and data whilst enhancing their practical skills of scientific enquiry.

Work Scientifically by:

- 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

National Curriculum Year 1 Subject Content Pupils should be taught

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 4 seasons
- observe and describe weather associated with the seasons and how day length varies

National Curriculum Year 2 Pupils should be taught to:

Living things and their habitats

- explore and compare the differences between things that are living, dead, and things that have never been alive
- 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
- identify and name a variety of plants and animals in their habitats, including microhabitats
- 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

Plants

- observe and describe how seeds and bulbs grow into mature plants
- find out and describe how plants need water, light and a suitable temperature to grow and stay healthy

Animals Including humans

- notice that animals, including humans, have offspring which grow into adults
- find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
- describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene

Using everyday Materials

- identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
- find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching



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Year 1 / 2 Cycle A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Knowledge & Skills	<p>Animals, including humans (Y1)</p> <ul style="list-style-type: none"> • 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. <p>• I can match, sort and group young animals and their adults.</p> <p>• I can find out how animals change as they grow into adults.</p> <p>• I can compare the stages of the human life cycle.</p> <p>• I can research and describe what animals, including humans, need to survive.</p>	<p>Plants (Y1)</p> <ul style="list-style-type: none"> • 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. <p>• I can name wild plants at in the garden or in the school outside environment.</p> <p>• I can identify ever green or deciduous trees.</p> <p>• I can explain what a deciduous and ever green trees are and why they are so different.</p> <p>• I can name different parts of a plant and tree.</p> <p>• I can explain the job each part of a plant and tree has.</p>	<p>Living things and their habitats (Y2)</p> <ul style="list-style-type: none"> • explore and compare the differences between things that are living, dead, and things that have never been alive • 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 • identify and name a variety of plants and animals in their habitats, including microhabitats • 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>• I can compare the differences between things that are living, dead and have never been alive.</p> <p>• I can map a habitat and identify what is in it.</p>	<p>Plants (Y2)</p> <ul style="list-style-type: none"> • observe and describe how seeds and bulbs grow into mature plants • find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. <p>• I can design and set up a test to find out what plants need to stay healthy</p> <p>• I can look closely at the parts of a seed that will grow into a plant and explain how it will germinate.</p> <p>• I can describe the life cycle of a plant.</p> <p>• I can explain what plants need to grow and stay healthy.</p> <p>• I can describe what happens if plants don't get all the things they need.</p> <p>• I can explain how plants are suited to their habitats.</p>	<p>Animals including humans (Y2)</p> <ul style="list-style-type: none"> • notice that animals, including humans, have offspring which grow into adults • find out about and describe the basic needs of animals, including humans, for survival (water, food and air) • describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene <p>• I can match, sort and group young animals and their adults.</p> <p>• I can find out how animals change as they grow into adults.</p> <p>• I can compare the stages of the human life cycle.</p> <p>• I can research and describe what animals, including humans, need to survive.</p> <p>• I can test the effects of exercise on the human body</p> <p>• I can investigate the importance of healthy eating and hygiene.</p>	<p>Plants and animals through the year.</p> <ul style="list-style-type: none"> • explore and compare the differences between things that are living, dead, and things that have never been alive • 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 • identify and name a variety of plants and animals in their habitats, including microhabitats • 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>• I can compare the differences between things that are living, dead and have never been alive.</p> <p>• I can map a habitat and identify what is in it.</p> <p>• I can classify objects as those that are living, dead and those that have never been alive.</p> <p>• I can identify animals in their habitats.</p>



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- I can test the effects of exercise on the human body
- I can investigate the importance of healthy eating and hygiene.

- I can classify objects as those that are living, dead and those that have never been alive.
- I can identify animals in their habitats.
- I can use information I have gathered to answer a question.
- I can describe a habitat and identify animals live in it.
- I can identify how an animal is suited to its habitat
- I can explain how living things in a habitat depend on each other.
- I can describe how animals get their food.

- I can use information I have gathered to answer a question.
- I can describe a habitat and identify animals live in it.
- I can identify how an animal is suited to its habitat
- I can explain how living things in a habitat depend on each other.
- I can describe how animals get their food.



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<p>Year 1 /2 Cycle B</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Key Knowledge & Skills</p>	<p>Autumn 1</p> <p>Seasonal change through the year.</p> <ul style="list-style-type: none"> • observe changes across the four seasons • observe and describe weather associated with the seasons and how day length varies. <ul style="list-style-type: none"> • I can describe how the weather changes across the seasons • I can describe day length in autumn. • I can identify signs of autumn. • I can describe how day length varies from autumn to winter. 	<p>Autumn 2</p> <p>Seasonal change through the year.</p> <ul style="list-style-type: none"> • observe changes across the four seasons • observe and describe weather associated with the seasons and how day length varies. <ul style="list-style-type: none"> • I can identify changes in the trees and in clothes that we wear from autumn to winter. • I can observe and describe the weather in winter. • I can collect and record data about the weather in winter. • I can explain how some animals adapt in winter. 	<p>Spring 1</p> <p>Everyday materials</p> <ul style="list-style-type: none"> • 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. • I can describe what an object is made from • I can name wood, plastic, glass, metal, water and rock materials • I can describe properties of materials. • I can identify what different item are made from and group them. • I can group objects by their physical properties 	<p>Spring 2</p> <p>Seasonal change through the year (revisited and built on)</p> <ul style="list-style-type: none"> • observe changes across the four seasons • observe and describe weather associated with the seasons and how day length varies. <ul style="list-style-type: none"> • I can describe how the weather changes across the seasons • I can describe day length in autumn. • I can identify signs of autumn. • I can describe how day length varies from autumn to winter. • I can identify changes in the trees and in clothes that we wear from autumn to winter. • I can observe and describe the weather in winter. • I can collect and record data about the weather in winter. • I can explain how some animals adapt in winter. 	<p>Summer 1</p> <p>Use of everyday materials</p> <ul style="list-style-type: none"> • identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses • find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. • I can identify uses of different everyday materials. • I can identify and group the uses of everyday materials. • I can record my observations. • I can compare the suitability of different everyday materials. • I can explain how the shapes of objects made from some materials can be changed. • I can explain the process of recycling. • I can tell you about the inventor John McAdam. 	<p>Summer 2</p> <p>Seasonal change through the year (Revisited and deeper understanding given)</p> <ul style="list-style-type: none"> • observe changes across the four seasons • observe and describe weather associated with the seasons and how day length varies. • I can describe how the weather changes across the seasons • I can describe day length in autumn. • I can identify signs of autumn. • I can describe how day length varies from autumn to winter. • I can identify changes in the trees and in clothes that we wear from autumn to winter. • I can observe and describe the weather in winter. • I can collect and record data about the weather in winter. • I can explain how some animals adapt in winter.
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