BISHOP LONSDALE CHURCH OF ENGLAND PRIMARY SCHOOL AND NURSERY

SCIENCE END POINTS

Working scientifically

Reception End Points	Year 1 End Points	Year 2 End Points
With support, use simple equipment such as timers, rulers and containers to measure length, height, capacity or time. With support, observe, record and talk about materials and living things. Offer explanations for how things work or why things happen, making use of vocabulary such as because, then and next. Follow instructions when in different environments and when handling simple equipment, such as scissors. Represent scientific observations by mark-making, drawing or creating simple charts and tables. Ask a relevant scientific question to find out more. Observe how activities are going and adapt their ideas if necessary. Record data in simple tables and pictograms. Looks closely at similarities, differences and change *EXC: They are familiar with basic scientific concepts such as floating, sinking, experimentation.*	With help, talk about what they have done and what they think they have found out. Ask simple scientific questions and begin to recognise that they can be answered in different ways. With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen. With support, observe closely using simple equipment and take simple measurements. With support, observe, identify, group and sort objects, materials and living things based on their features. With support, gather and record simple data to help in answering questions. With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams). With support, begin to use their observations and ideas to suggest answers to questions.	Explain what they have done and found out using simple scientific language. Ask and answer simple scientific questions and explain when they can be answered in different ways. Follow instructions to perform simple tests, making simple predictions for what might happen and suggesting ways to answer their questions. Observe closely, using simple equipment to make observations and take measurements. With support, observe, identify, classify, group and sort objects, materials and living things based on their features, explaining their reasoning. Gather and record data to help in answering questions. Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy. Begin to notice patterns and relationships in their data. Use their observations and ideas to suggest answers to questions and make simple explanations.

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SCIENCE END POINTS

Plants

Reception End Points	Year 1 End Points	Year 2 End Points
Begin to name and group plants and trees according to their observable features. Name and describe basic features of plants and trees. Describe some ways that plants or animals should be cared for in order for them to survive. Looks closely at similarities, differences, patterns and change in plants. They make observations of plants and explain why some things occur and talk about changes. *EXC - Children know that the environment and living things are influenced by human activity*	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.	Observe and describe germination and 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, and how this varies from plant to plant.

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SCIENCE END POINTS

Seasonal changes

Reception End Points	Year 1 End Points	Year 2 End Points
Notice and begin to describe patterns of weather in summer and winter. Notice and talk about difference in day length between the seasons. Describe simply how the weather changes as the seasons change. Name and describe natural phenomena, such as the size of shadows, colours of a rainbow, the speed of clouds and the strength of a wave. They make observations of animals and plants and explain why some things occur, and talk about changes e.g. seasons	Observe changes across the four seasons. Observe and describe weather associated with the seasons Observe and describe how the day length changes across the year. Observe the local environment throughout the year and ask and answer questions about living things and seasonal change.	Describe typical seasonal UK weather patterns.

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SCIENCE END POINTS

Animals, including humans

Reception End Points	Year 1 End Points	Year 2 End Points
Draw pictures of the human body and name some of the different body parts. Identify common features for different groups of animals, including wild and domestic animals. Match animals to the foods that they eat. Match animals to their young. Describe some ways that plants or animals should be cared for in order for them to survive. Wash and dry hands regularly and explain why this is important. Looks closely at similarities, differences, patterns and change in animals. *EXC - Children know that the environment and living things are influenced by human activity* Eats a healthy range of food and understands the need for a variety in food.	Identify, name, draw and label the basic parts of the human body and say which part of the human body is associated with each sense. Identify, group, compare and sort a variety of common animals including fish, amphibians, reptiles, birds, invertebrates and mammals. Label and describe the basic structures of a variety of common animals including fish, amphibians, reptiles, birds, invertebrates and mammals. Identify and name a variety of common animals that are carnivores, herbivores and omnivores. Describe how to care for plants and animals, including pets. Explain why handwashing and cleanliness are important.	Notice that animals including humans have offspring that grow into adults. Find out about and describe the basic needs of animals including humans for survival (water, food, air). Describe the importance for humans of exercise, eating the right amounts of food and hygiene. Describe the importance of a healthy lifestyle, including exercise, a balanced diet, good quality sleep and personal hygiene. Describe the stages of human development (baby, toddler, child, teenager, adult and elderly). Describe the basic life cycles of some familiar animals (butterfly, chicken, frog).

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SCIENCE END POINTS

Living things and their habitats

Reception End Points	Year 1 End Points	Year 2 End Points
Observe and describe living things and their habitats within the local environment. Explore the natural world around them and give simple descriptions of changes. Looks closely at similarities, differences, patterns and change. Know about similarities and differences in relation to places and living things. They talk about the features of their own immediate environment and how environments might vary from one to another. They make observations of animals and plants and explain why some things occur and talk about changes. *EXC: Chn know that the environment and living things are influenced by human activity. They can describe some actions which people in their own community do that help to maintain where they live.*	Observe the local environment throughout the year and ask and answer questions about living things and seasonal change. Describe, following observations, how plants and animals change over time.	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. Describe a range of different habitats beyond their locality (beaches, rainforests, deserts, oceans and mountains) and that all habitats provide for the basic needs of things that live there. 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. Interpret and construct simple food chains to describe how living things depend on each other as a source of food.

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SCIENCE END POINTS

Forces

Reception End Points	Year 1 End Points	Year 2 End Points
Describe, predict and sort things that float and sink and talk about the forces that they can feel. Looks closely at similarities, differences, patterns and change. EXC: They know the properties of some materials and can suggest some of the purposes they are used for. They are familiar with basic scientific concepts such as floating, sinking, experimentation.		

Light

Reception End Points	Year 1 End Points	Year 2 End Points
Make a shadow bigger or smaller using toys, play equipment and a light source. Explore and describe electrical and non-electrical light sources. Looks closely at similarities, differences, patterns and change. EXC: Know the properties of some materials and can suggest some of the purposes they are used for.		

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SCIENCE END POINTS

Electricity

Reception End Points	Year 1 End Points	Year 2 End Points
Explore and describe electrical and non-electrical light sources.		

Sound

Reception End Points	Year 1 End Points	Year 2 End Points
Explores the different sounds of instruments.		

Earth and space

Reception End Points	Year 1 End Points	Year 2 End Points
They talk about the features of their own immediate environment and how environments might vary from one to another.		

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SCIENCE END POINTS

Properties and changes of materials

Reception End Points	Year 1 End Points	Year 2 End Points
Name and sort everyday items into groups of the same material. Identify that materials have different properties and explore and sort magnetic and non-magnetic materials through play and exploration. Compare and group objects and materials according to simple given criteria.	**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, such as natural or man-made; recyclable or non-recyclable. Investigate and describe the simple physical properties of some everyday materials, such as hard or soft; stretchy or stiff; rough or smooth; opaque or transparent; bendy or rigid; waterproof or non-waterproof; magnetic or non-magnetic.	**Uses of 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. Describe how some objects and materials can be changed and how these changes can be desirable or undesirable. Observe what happens when a range of everyday materials, including foods, are heated and cooled, sorting or grouping them based on their observations.