




Science Skills Progression

| <p>EYFS</p>  | <p>Year 1</p>  | <p>Year 2</p>  |
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| <p>Understanding The World (science skills)</p> <p><u>Three and four year old children:</u></p> <p>Communication and Language</p> <ul style="list-style-type: none"> • Understand 'why' questions like, 'Why do you think the caterpillar goes so fat?' <p>Personal, Social and Emotional Development</p> <ul style="list-style-type: none"> • Make healthy choices about food, drink, activity and tooth brushing. <p>Understanding the World</p> <ul style="list-style-type: none"> • Use all senses in hands on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Talk about what they see, using a wide vocabulary. • Begin to make sense of their own life-story and family history. • Explore how things work. • Plant seeds and care for plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things. • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice. | <p>Seasonal Changes – Autumn Spring Summer Winter – Ongoing tree observations over the year.</p> <ul style="list-style-type: none"> • Observe closely, using simple equipment • Gather and record data • To observe changes across the four seasons. • To observe and describe weather associated with the seasons. • Use their observations and ideas to suggest answers to questions • To observe and describe how day length varies. • Asking simple questions and recognising that they can be answered in different ways. • Identifying and classifying. • 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>Humans – basic structure and needs – label and name body parts</p> <ul style="list-style-type: none"> • Observe closely • Gathering and recording data • Identify, name, draw and label the basic parts of the human body. • Perform simple tests • Use their observations and ideas to suggest answers to questions • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. • Identifying and classifying. <p>Animals</p> | <p>Animals – including humans</p> <ul style="list-style-type: none"> • Perform simple tests. • To use their observations and ideas to answer questions. • Gather and record data to answer questions. • To describe the importance for humans of exercise. • Observe closely • Ask simple questions • Explore and compare the differences between things that are living, dead, and things that have never been alive • Describe the importance for humans of hygiene • Identifying and classifying different foods. • Describe the importance for humans of eating the right amounts of different types of food. • Find out about and describe the basic needs of animals, including humans, for survival (water, food) <p>Materials and their Uses</p> <ul style="list-style-type: none"> • Observe closely • Identify and classify • Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. • Perform simple tests • Gather and record data to help in answering questions • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. • List the properties of some materials. |

Reception:

Communication and Language

- Learn new vocabulary.
- Ask questions to find out more and to check what has been said to them.
- Articulate their ideas and thoughts in well formed sentences.
- Describe events in some detail.
- Use talk to help work out problems and organize thinking and activities, and to explain how things work and why they might happen.
- Use new vocabulary in different contexts.

Personal, Social and Emotional Development

- Know and talk about the different factors that support their overall health and wellbeing such as regular physical activity, healthy eating, tooth brushing, sensible amounts of screen time, good sleep routine and being a safe pedestrian.

Understanding the World

- Explore the natural world around about them.
- Describe what they see, hear and feel while they are outside.
- Recognise some environments that are different to the one in which they live.
- Understand the effect of changing seasons on the natural world around them.

- Observe closely
- Identify and classify
- Use their observations and ideas to suggest answers to questions
- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
- Describe the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals)
- Use their observations and ideas to suggest answers to questions
- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals)
- Identify and name a variety of common animals that are carnivores, herbivores and omnivores

Plants – Identify and name common deciduous and evergreen trees – Identify and describe basic structure

- Asking simple questions and recognising that they can be answered in different ways
- Performing simple tests
- Identify and name a variety of common garden plants
- Observing closely, using simple equipment
- Using their observations and ideas to suggest answers to questions
- Gathering and recording data to help in answering questions
- Identify and name deciduous and evergreen trees.
- Identify and describe the basic structure of a variety of common flowering plants, including trees.
- Observe changes across the four seasons
- Observe and describe weather associated with the seasons and how day length varies
- Identify and name a variety of common garden plants.
- Identify and describe the basic structure of a variety of common flowering plants

Common British Animals

- Ask simple questions
- Use their observations and ideas to suggest answers to questions
- Identify and name a variety of common animals

- Say which material is manufactured and which is natural
- Say what object a material can be made into.
- Know that different materials can be used for the same thing.
- Ask questions, identify and classify.
- Identify and compare the suitability of everyday materials.
- Identify products that can be made from one material.
- Asking simple questions and recognising that they can be answered in different ways.
- Using their ideas to suggest answers to questions.
- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.

Animals – Food Chains

- Observing closely
- Gathering and recording data to help in answering questions
- Identifying and classifying
- Identify and name a variety of plants and animals in their habitat.
- 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
- Asking simple questions and recognising that they can be answered in different ways
- Gathering and recording data to help in answering questions
- Use their observations and ideas to suggest answers to questions.
- 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
- Asking simple questions and recognising that they can be answered in different ways.
- Describe how different habitats provide for the basic needs of different kinds of animals
- Identify and name a variety of animals in their habitats.
- Find out about and describe the basic needs of animals for survival (water, food and air)

Animals – Life Cycles and Habitats

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| ELG: | | | <ul style="list-style-type: none"> 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 Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of common animals including birds. Describe and compare the structure of a variety of birds – Trailblazers Big Bird Watch | <ul style="list-style-type: none"> Asking simple questions and recognising that they can be answered in different ways. Observing closely, using simple equipment Using their observations and ideas to suggest answers to questions Describe how animals obtain their food from plants and other animals and identify and name different sources of food. Notice that animals have offspring which grow into adults Find out about and describe the basic needs of animals for survival (water, food and air) Find out about and describe the basic needs of animals for survival (water, food and air) 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. Explore and compare the differences between things that are living, dead, and things that have never been alive | | |
| Communication and Language | Listening, attention and understanding | Make comments about what they have heard and ask questions to clarify their understanding. | | | <p>Everyday Materials</p> <ul style="list-style-type: none"> Observe closely Identify and classify Use their observations to suggest answers to questions 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. <p>Plants</p> <ul style="list-style-type: none"> Identify & classify Identify and describe the basic structure of a variety of common flowering plants, including trees Gathering and recording data to help in answering questions Observe changes across the four seasons. Observe and describe and describe weather associated with the seasons and how day length varies. Identify and name deciduous and evergreen trees. Identify and describe the basic structure of common trees. Identify & classify (Compare and contrast what they have found out about different plants) Know the basic components of trees and their functions. | <p>Plants</p> <ul style="list-style-type: none"> Asking simple questions and recognising that they can be answered in different ways. Performing simple tests. 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. Includes planning of investigation, questioning, carrying out of planting in different conditions, observations and conclusion to answer their questions based on the conditions that the bulbs were planted in. (see planning) <p>Habitats Micro-habitats – mini-beasts</p> <ul style="list-style-type: none"> Asking simple questions and recognising that they can be answered in different ways. Observing closely, using simple equipment Gathering and recording data to help in answering questions. Identify and classify Identify and name a variety of plants and animals in their habitats, including micro-habitats. Identify that most living things live in habitats to which they are suited and describe how different |
| Personal, social and emotional development | Managing self | Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy choices. | | | | |
| Understanding the world | The natural world | <p>Explore the natural world around them, making observations and drawing pictures of animals and plants.</p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p> | | | | |

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| | <ul style="list-style-type: none"> • Know that there are many species of tree and have an understanding of how to identify them by their individual characteristics. • Using their observations and ideas to suggest answers to questions • To identify and name a variety of deciduous and evergreen trees by identifying their leaves. <p>People who have developed useful materials:</p> <ul style="list-style-type: none"> • Describe the properties of Lego • Identify reasons why Lego is made from plastic • Ask questions about Mae Jemison and find out the answers • Compare the bodies of different animals • Sort animals into different groups • Name different plants • Create a chart to show our favourite plant • Describe how vets look after animals <p style="text-align: center;">Identify parts of animals' bodies</p> | <p>habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.</p> <ul style="list-style-type: none"> • Perform simple tests. • Use their observations to suggest answers to questions • 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>People who have developed useful materials:</p> <ul style="list-style-type: none"> • Describe how greenhouses help plants grow • Observe whether plants grow best inside or outside a greenhouse. • Identify parts of a plant • Use a magnifying glass to help me draw different parts of a plant. • Describe what is important in order to stay healthy • Explain what Charles Macintosh invented • Investigate fabrics for a particular use • Describe what Rachel Carson learnt about ocean habitats • Answer questions about the invention of wind turbines. |
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