



Science progression of skills and knowledge

Year R

Early learning goal:

Children know about the similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.

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| <ul style="list-style-type: none">• asking and answering simple questions• having opportunities to notice and talk• using correct terms that have been modelled• recording findings by drawing, taking photos, making a model or writing | <ul style="list-style-type: none">• noticing and discussing similarities, differences and changes between their bodies and other children• observing and talking about changes when looking after animals e.g hatching chicks• observing and discussing seasonal changes to plants and trees in school grounds and in local environment• observing and identifying parts of a range of plants• having opportunities to observe things closely through a variety of means, including magnifiers and photographs.• using different materials to create simple structures• experiencing and discussing changes when cooking/heating/cooling simple foods |
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Science progression of skills and knoweldge

Year One	
<p>Working Scientifically</p> <p><i>Pupils will be taught to use the following practical scientific methods, processes and skills:</i></p> <ul style="list-style-type: none"> • WS1 asking simple questions and recognising that they can be answered in different ways • WS2 observing closely, using simple equipment and measurements • WS3 performing simple tests • WS4 identifying and classifying • WS5 using their observations and ideas to suggest ideas to answer questions • WS6 gathering, recording and communicating data and findings to help in answering questions 	<p>Key ideas</p> <p>Plants</p> <ul style="list-style-type: none"> • P1 identify and name a variety of common, wild and garden plants, including deciduous and evergreen trees • P2 identify and describe the basic structure of a variety of common flowering plants, including trees • P3 know that plants usually grow from seeds and bulbs • P4 know that plants need water, light and warmth to grow and survive <p>Animals, including humans</p> <ul style="list-style-type: none"> • AH1 identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals • AH2 identify and name a variety of common animals that are carnivores, herbivores and omnivores • AH3 describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) • AH4 identify, name, draw and label the basic parts of the human body and say which part is associated with which sense • AH5 know that animals need food to survive and help them grow • AH6 know that exercise keeps humans' bodies in good condition and helps them stay healthy

Science progression of skills and knowledge

- WS7 using scientific language and read and spell age -appropriate scientific vocabulary
- WS 8 beginning to notice patterns and relationships

Everyday materials

- EM1 distinguish between an object and the material from which it is made
- EM2 identify and name a variety of everyday materials, including wood, plastic, glass, metal, wood, rock.
- EM3 describe the simple physical properties of a group of everyday materials e.g flexible, smooth, rough, shiny.
- EM4 compare and group together a variety of everyday materials on the basis of their simple physical properties

Seasonal changes

- SC1 observe changes across the seasons
- SC2 observe and describe weather associated with the seasons and how day length varies

Science progression of skills and knoweldge

Year Two	
<p>Working Scientifically</p> <p><i>Pupils will be taught to use the following practical scientific methods, processes and skills:</i></p> <ul style="list-style-type: none"> • WS1 asking simple questions and recognising that they can be answered in different ways • WS2 observing closely, using simple equipment and measurements • WS3 performing simple tests • WS4 identifying and classifying • WS5 using their observations and ideas to suggest ideas to answer questions • WS6 gathering, recording and communicating data and findings to help in answering questions 	<p>Key ideas</p> <p>Plants</p> <ul style="list-style-type: none"> • P1 Observe and describe how seeds and bulbs grow into mature plants • P2 find out and describe how plants need water, light and a suitable temperature to grow and stay healthy • P3 know that flowering plants make seeds to reproduce and make new plants <p>Living things and their habitats</p> <ul style="list-style-type: none"> • LH1 explore and compare the differences between things that are living, dead and things that have never been alive • LH2 identify that most living things live in habitats to which they are suited • LH3 describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other • LH4 Identify and name a range of animals and plants in their habitats, including micro habitats • LH5 describe how animals obtain their food from plants and different • LH6 understand a simple food chain, and identify and name different sources of food

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Animals including humans

- AH1 notice that animals, including humans, have offspring that grow into adults
- AH2 find out about and describe the basic needs of animals, including humans, for survival (water, food, air)
- AH3 describe the importance to humans of exercise, eating the right amount of different types of food and hygiene

Uses of everyday materials

- EM1 identify and compare the suitability of a variety of different material, including wood, metal, plastic, glass, brick, rock, paper, cardboard
- EM2 find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching

Seasonal changes

- SC1 observe changes across the seasons
- SC2 observe and describe weather associated with the seasons and how day length varies

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