

Year 1 Science Curriculum

Autumn Term

Animals Inc Humans

National Curriculum Objectives

Identify, name, draw & label the basic parts of the human body and say which part of the body is associated with each sense. (1)	
Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (2)	
Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (3)	
Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, inc. pets). (4)	
Providing further depth and breadth of understanding (5)	

Direct Knowledge

All knowledge linked to prior learning
that the group of living things called 'animals' includes humans. (1)
that there are different types of animals in the immediate environment. (see key vocab for parts which must be covered) (2)
that there are different types of animals in the wider environment. (2)
that some animals may be kept as pets and other may not. (4)
that some animals are better pets than other. (5)
that animals and the environment should be treated with care and sensitivity. (5)
that animals including humans are structured in different ways. (4)
that there are similarities and differences between the structure of common animals. (see key vocab for structural elements which must be covered) (4)
that there are similarities and differences between humans. (5)
that humans are more like each other than they are like other animals. (5)
that humans have bodies with similar parts. (see key vocab for parts which must be covered) (1)
that humans have five senses. (1)
that each of a human's five senses may be associated with a different body part(s). (1)
that some animals have more highly developed senses than humans. (5)
that some animals are carnivores. (3)
that a carnivore is an animal that mostly eats other animals (meat). (3)
that some animals are herbivores. (3)
that a herbivore is an animal that only eats plants. (3)
that some animals are omnivores. (3)
that an omnivore is an animal that eats both plants and other animals. (3)

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Common misconceptions

Some children may think:

- only four-legged mammals, such as pets, are animals
- humans are not animals
- insects are not animals
- all 'bugs' or 'creepy crawlies', such as spiders, are part of the insect group
- amphibians and reptiles are the same.

Spring

Everyday Materials

National Curriculum Objectives

Distinguish between an object and the material from which it is made. (1)	
Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. (2)	
Describe the simple physical properties of a variety of everyday materials. (3)	
Compare & group together a variety of everyday materials on the basis of their simple physical properties. (4)	
Providing further depth and breadth of understanding (5)	

Direct Knowledge

All knowledge linked to prior learning
that there are many materials that can be named. (see key vocab for materials which must be covered) (2)
that some materials occur naturally. (5)
that some materials do not occur naturally (they are made). (5)
that all materials have different characteristics. (2)
that we can recognise the characteristics of different materials using our senses. (3)
that materials can be sorted based on their characteristics. (4)
that sometimes the same materials can have different characteristics. (4) <ul style="list-style-type: none">• plastic - some are hard and some are soft• metal - some are hard and some are soft• metal - some are bendy and others are rigid• glass - some are transparent and some are translucent and some are opaque

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that objects feel and look different based on the materials from which they are made. (4)

that some objects can sink and float (3)

that materials can be used to make things. (1)

that some materials are better for making things than others. (5) [do not cover in detail - Y2]

that all objects are made from a material. (1)

- classroom tables - wood, plastic and metal
- windows - plastic and glass
- carpet - wool
- books - paper
- car tyres - rubber
- dinner plates - clay
- clothes - fabric (cotton, wool or other synthetic fibres)

Common misconceptions

Some children may think:

- only fabrics are materials
- only building materials are materials
- only writing materials are materials
- the word 'rock' describes an object rather than a material
- 'solid' is another word for hard.

Seasonal Changes

(Spring and Summer)

National Curriculum Objectives

Observe changes across the four seasons. (1)

Observe and describe weather associated with the seasons and how day length varies. (2)

Providing further depth and breadth of understanding (3)

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Direct Knowledge

All knowledge linked to prior learning
that there are four seasons. (1)
that the weather changes. (2)
that to a great extent, the weather depends on the season. (2)
that in each season, the weather is different in each place around the world. (3)
that in the UK, the weather in Autumn is typically cool and windy with some wet days and some dry. (2)
that in Autumn, leaves on many trees turn yellow or orange. (1)
that once the leaves on a tree have turned yellow or orange, they fall to the floor. (1)
that in the UK, the weather in the Winter is typically cold and wet, and it sometimes snows. (2)
that people wear certain clothes during the Winter in the UK. (3)
that in the UK, it gets light later in a morning during Winter than in it does in Summer. (2)
that in the UK, it gets dark earlier at night during Winter than in it does in Summer. (2)
that some animals hibernate during Winter. (3)
that in the UK, the weather in Spring is typically calm and dry, with warm, sunny days and cool nights. (2)
that in Spring, some trees begin to grow new leaves. (1)
that in Spring, some trees grow blossom. (1)
that in Spring, many plants begin to grow. (1)
that in the UK, the weather in Summer is typically hot and dry. (2)
that people wear certain clothes during the Summer in the UK. (3)
that in the UK, it gets light earlier in a morning during Summer than in it does in Winter. (2)
that in the UK, it gets dark later at night during Summer than in it does in Winter. (2)
that it is not safe to look directly at the sun, as it can damage your eyes. (3)
that sunglasses can help to protect our eyes from the sun. (3)
that the sun can damage your skin by causing sunburn. (3)
that sun cream can help to protect our skin from the sun. (3)

Common misconceptions

Some children may think:

- it always snows in winter
- it is always sunny in the summer
- there are only flowers in spring and summer
- it rains most in the winter.

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Summer

Plants

National Curriculum Objectives

Identify & name a variety of common wild & garden plants, including deciduous & evergreen trees. (1)	
Identify and describe the basic structure of a variety of common flowering plants, including trees. (2)	
Providing further depth and breadth of understanding (3)	

Direct Knowledge

All knowledge linked to prior learning
that there are different plants in the immediate environment. (1)
that plants and the environment should be respected. (3)
that some plants may be classified as 'weeds' - others may not. (1)
that plants should not be removed from their environment unless they are a weed. (3)
that plants have different parts, (2)
that some plants have parts which may make them harmful. (see key vocab for parts which must be covered) (3)
<ul style="list-style-type: none"> • bramble • nettle
That some plants can be cooked and eaten or eaten raw whilst others are poisonous. (3)
that some plants in the local environment are similar to each other. (2)
<ul style="list-style-type: none"> • roots (same size, structure) • stem (same size, thickness) • leaves (same size, shape, colour) • flowers (same size, colour, shape, number of petals)
that some plants in the local environment are different to each other. (2)
<ul style="list-style-type: none"> • roots (different size, structure) • stem (different size, thickness) • leaves (different size, shape, colour) • flowers (different size, colour, shape, number of petals)
that some plants lose their leaves in winter. (1)
that some plants are 'evergreen' and others are deciduous. (1)
that some plants grow from seeds. (2)
that some plants grow from bulbs. (2)
that the seeds and bulbs of different plants may be similar to each other in some ways. (3)
that the seeds and bulbs of different plants may be different to each other in some ways. (3)
that the parts of a plant change over time as they grow. (2)

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- thickness of stem
- size of leaves
- appearance of the flower (closed, open)

that different plants flower at different times of the year.

Common misconceptions

Some children may think:

- plants are flowering plants grown in pots with colored petals and leaves and a stem
 - trees are not plants
 - all leaves are green
 - all stems are green
 - a trunk is not a stem
- blossom is not a flower.