Science in Year 1

Plants – Autumn 1
(Identify and compare)

National Curriculum statutory requirements:

- 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.

Observations over time:

- Pupils should use the local environment throughout the year to explore and answer questions about plants growing in their habitat.

Working scientifically statutory requirements:

-ask simple questions and recognise that they can be answered in different ways.
-observe closely, using simple equipment.
-perform simple tests.
-identify and classify using observations and ideas to suggest answers to questions.
-gather and record data to help in answering questions.
5 types of scientific enquiry: Pattern seeking, research, observations over time, identifying & classifying, comparative and fair testing.

Notes and guidance (non-statutory)

Pupils should use the local environment throughout the year to explore and answer questions about plants growing in their habitat. Where possible, they should observe the growth of flowers and vegetables that they have planted. They should become familiar with common names of flowers, examples of deciduous and evergreen trees, and plant structures (including leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem).
Pupils might work scientifically by: observing closely, perhaps using magnifying glasses, and comparing and contrasting familiar plants; describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants including trees.
Pupils might keep records of how plants have changed over time, for example the leaves falling off trees and buds opening; and compare and contrast what they have found out about different plants.

Vocabulary

Plant, seed, flowering plant, grow, garden plant, daffodil, rose, tulip, lavender, ivy, poppy, bluebell, strawberry, crocus, wild plant, dandelion, daisy, nettle, dock, thistle, buttercup, bramble, fern, St. John's wort, food, vegetable, fruit, apples, bananas, strawberries, peas, stem, leaf, roots, food, sunlight, transport, reproduce, attract, insects, water, nutrients, soil, anchor, growth, taller, bigger

Science in Year 1

Plants - Autumn 2
(Identify and compare)

National Curriculum statutory requirements:

- 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.

Observations over time

- Pupils should use the local environment throughout the year to explore and answer questions about plants growing in their habitat.

Working scientifically statutory requirements:

-ask simple questions and recognise that they can be answered in different ways.
-observe closely, using simple equipment.
-perform simple tests.
-identify and classify using observations and ideas to suggest answers to questions.
-gather and record data to help in answering questions.
5 types of scientific enquiry: Pattern seeking, research, observations over time, identifying & classifying, comparative and fair testing.

Notes and guidance (non-statutory)

Pupils should use the local environment throughout the year to explore and answer questions about plants growing in their habitat. Where possible, they should observe the growth of flowers and vegetables that they have planted. They should become familiar with common names of flowers, examples of deciduous and evergreen trees, and plant structures (including leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem).
Pupils might work scientifically by: observing closely, perhaps using magnifying glasses, and comparing and contrasting familiar plants; describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants including trees.
Pupils might keep records of how plants have changed over time, for example the leaves falling off trees and buds opening; and compare and contrast what they have found out about different plants.

Vocabulary

tree, deciduous, evergreen, changes over time, colour, seasons, needles, branches, roots, trunk, leaves.

Science in Year 1

Everyday Materials - Spring 1
(Naming & properties)

National Curriculum statutory requirements:

- 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.

Working scientifically statutory requirements:

-ask simple questions and recognise that they can be answered in different ways.
-observe closely, using simple equipment.
-perform simple tests.
-identify and classify using observations and ideas to suggest answers to questions.
-gather and recording data to help in answering questions.
5 types of scientific enquiry: Pattern seeking, research, observations over time, identifying & classifying, comparative and fair testing.

Notes and guidance (non-statutory)

Pupils should explore, name, discuss and raise and answer questions about everyday materials so that they become familiar with the names of materials and properties such as: hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent.
Pupils should explore and experiment with a wide variety of materials, not only those listed in the programme of study, but including for example: brick, paper, fabrics, elastic, foil. Pupils might work scientifically by: performing simple tests to explore questions, for example: 'What is the best material for an umbrella? ...for lining a dog basket? ...for curtains? ...for a bookshelf? ...for a gymnast's leotard?'

Vocabulary

Materials: wood, plastic, metal, glass, fabric, rubber
Properties: hard, rough, dark, smooth, broken, breakable, not bendy, cold, shiny, colour

Science in Year 1

Everyday Materials - Spring 2
(Naming & Properties)

National Curriculum statutory requirements:

-distinguish between an object and the material from which it is made
-compare and group together a variety of everyday materials on the basis of their simple physical properties.

Working scientifically statutory requirements:

-ask simple questions and recognise that they can be answered in different ways.
-observe closely, using simple equipment.
-perform simple tests.
-identify and classify using observations and ideas to suggest answers to questions.
-gather and recording data to help in answering questions.
5 types of scientific enquiry: Pattern seeking, research, observations over time, identifying & classifying, comparative and fair testing.

Notes and guidance (non-statutory)

Pupils in years 1 and 2 should explore the world around them and raise their own questions. They should experience different types of scientific enquiries, including practical activities, and begin to recognise ways in which they might answer scientific questions. They should use simple features to compare objects, materials and living things and, with help, decide how to sort and group them, observe changes over time, and, with guidance, they should begin to notice patterns and relationships. They should ask people questions and use simple secondary sources to find answers. They should use simple measurements and equipment (for example, hand lenses, egg timers) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out. With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language. These opportunities for working scientifically should be provided across years 1 and 2 so that the expectations in the programme of study can be met by the end of year 2. Pupils are not expected to cover each aspect for every area of study.

Vocabulary

Materials, wood, plastic, metal, glass, fabric, rubber, bendy, easily broken, float, sink, absorbent, transparent, waterproof, hard, soft

Science in Year 1

Animals including Humans - Summer 1

(Names and types; Carnivores/Herbivores)

National curriculum statutory requirements:

-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
-identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.
Observations throughout the year.
-pupils should use the local environment throughout the year to explore and answer questions about animals in their habitat.

Working scientifically statutory requirements:

-ask simple questions and recognise that they can be answered in different ways.
-observe closely, using simple equipment.
-perform simple tests.
-identify and classify using their observations and ideas to suggest answers to questions.
-gather and record data to help in answering questions.
5 types of scientific enquiry: Pattern seeking, research, observations over time, identifying & classifying, comparative and fair testing.

Notes and guidance (non-statutory)

Pupils should use the local environment throughout the year to explore and answer questions about animals in their habitat. They should understand how to take care of animals taken from their local environment and the need to return them safely after study.
Pupils should become familiar with the common names of some fish, amphibians, reptiles, birds and mammals, including those that are kept as pets.
Pupils should have plenty of opportunities to learn the names of the main body parts (including head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth) through games, actions, songs and rhymes.
Pupils might work scientifically by: using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; grouping animals according to what they eat; and using their senses to compare different textures, sounds and smells.

Vocabulary:

bird fish reptile amphibian mammal habitat polar bear shark lizard frog pigeon
habitat amphibians reptiles cold-blooded vertebrates (have a backbone) lungs scales hair/fur eggs live birth young ears holes gills webbed feet

Science in Year 1

Animals, including humans – Summer 2

National curriculum statutory requirements:

- 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, including pets)

Observations over time:

- pupils should use the local environment throughout the year to explore and answer questions about animals in their habitat.

Working scientifically statutory requirements:

-ask simple questions and recognising that they can be answered in different ways.
-observe closely, using simple equipment.
-perform simple tests.
-identify and classify using their observations and ideas to suggest answers to questions.
-gather and record data to help in answering questions.
5 types of scientific enquiry: Pattern seeking, research, observations over time, identifying & classifying, comparative and fair testing.

Notes and guidance (non-statutory)

Pupils should use the local environment throughout the year to explore and answer questions about animals in their habitat. They should understand how to take care of animals taken from their local environment and the need to return them safely after study.
Pupils should become familiar with the common names of some fish, amphibians, reptiles, birds and mammals, including those that are kept as pets.
Pupils should have plenty of opportunities to learn the names of the main body parts (including head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth) through games, actions, songs and rhymes.
Pupils might work scientifically by: using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; grouping animals according to what they eat; and using their senses to compare different textures, sounds and smells.

Vocabulary

Animals classification fish bird mammal human reptile amphibian warm-blooded cold-blooded skeleton carnivore herbivore omnivore