Science overview – Year 1

Plants

Pupils should be taught to:

- 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.

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,
- 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.
- keeping records of how plants have changed over time, for example the leaves falling off trees and buds opening; and
- comparing and contrasting what they have found out about different plants

Key vocabulary: leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud

Animals including humans

Pupils should be taught to:

 identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

Notes and Guidance (non-statutory):

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 [humans] at first hand or through videos and photographs,
- using their senses to compare different textures, sounds and smells.

Key vocabulary: Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves

Senses – touch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue

Animals including humans

Pupils should be taught to:

- 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
- describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, and including pets)

Notes and Guidance (nonstatutory):

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 fish, amphibians, reptiles, birds and mammals, including those that are kept as pets.

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,
- using their senses

Key vocabulary: amphibian, reptile, mammal, bird, fish,

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insect, herbivore, omnivore, carnivore
Names of animals experienced first-hand from each vertebrate group

Everyday materials

Pupils should be taught to:

- 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

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; rough/smooth; bendy/not waterproof/not waterproof; absorbent/not absorbent; opaque and 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?

Key vocabulary: object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not seethrough

Seasonal changes

Pupils should be taught to:

- observe changes across the four seasons
- observe and describe weather associated with the seasons and how day length varies.

Notes and Guidance (non-statutory):

Pupils should observe and talk about changes in the weather and the seasons.

Note: Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses.

Pupils might work scientifically by:

 making tables and charts about the weather and making displays of what happens in the world around them, including day length, as the seasons change.

Key vocabulary: weather (sunny, rainy, windy, snowy etc.), seasons (winter, summer, spring, autumn), sun, sunrise, sunset, day length