

Manor Primary School

Science Year 1: All about me and other animals

Overview of the Learning:

In this unit children will investigate themselves their senses, and explore differences between them and their friends. They will collect numerical data and they will turn their data into pictographs and bargraphs. They will investigate their senses gathering information and recording in a variety of ways. They will investigate the variety of animals including fish, amphibians, reptiles, birds and mammals. They will, explore what carnivores, herbivores and omnivores are. They will investigate the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)

Core Aims

- develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics about humans and other animals
- develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.

Pupils should be taught to work scientifically. They will:

- ask simple questions and recognising that they can be answered in different ways
- observe closely, using simple equipment
- perform simple tests
- identify and classifying
- use their observations and ideas to suggest answers to questions
- gather and record data to help in answering questions.

They will be taught about animals and humans and be expected to:

- identify and investigate similarities and differences between each other
- identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.
- know what the senses are and what we use them for
- 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, including pets)

Manor Primary School – Science- All about me and other animals



Expectations

Children can:

- identify names of the main body parts (including head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth)
- identify our senses and what we use them for
- 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, including pets)
- identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.
- use the local environment to explore and answer questions about animals in their habitat.
- understand how to take care of animals taken from their local environment and the need to return them safely after study. through games, actions, songs and rhymes.
- 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.

Manor Primary School – Science- *All about me and other animals*



Manor Primary School

Science Year 1: Investigating Everyday Materials

Overview of the Learning:

In this unit children will investigate everyday materials. They will explore what everyday things are made from. They will name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock describe the simple physical properties of a variety of everyday material and compare and group together a variety of everyday materials on the basis of their simple physical properties. They will raise their own questions about everyday materials and investigate them.

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- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.

Pupils should be taught to work scientifically. They will:

- ask simple questions and recognising that they can be answered in different ways
- observe closely, using simple equipment
- perform simple tests
- identify and classifying
- use their observations and ideas to suggest answers to questions
- gather and record data to help in answering questions.

Pupils should be taught about everyday materials

- 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.
- 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

Manor Primary School – Science- All about me and other animals



materials, not only those listed in the programme of study, but including for example: brick, paper, fabrics, elastic, foil.

- Pupils will 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?'

Expectations

Children can:

- 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.
- 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 will work scientifically by: performing simple tests to explore questions
- ask simple questions and recognising that they can be answered in different ways
- observe closely, using simple equipment
- perform simple tests
- identify and classifying
- use their observations and ideas to suggest answers to questions
- gather and record data to help in answering questions

Manor Primary School – Science- All about me and other animals



Manor Primary School

Science Year 1: Investigating Plants – Garden Gang

Overview of the Learning:

In this unit children will identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. They will identify and describe the basic structure of a variety of common flowering plants, including trees. Pupils should use the local environment to explore and answer questions about plants growing in their habitat. They should observe the growth of flowers and vegetables that they have planted.

Core Aims

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- ask simple questions and recognising that they can be answered in different ways
- observe closely, using simple equipment
- perform simple tests
- identify and classifying
- use their observations and ideas to suggest answers to questions
- gather and record data to help in answering questions.

Pupils should be taught about plants:

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

Manor Primary School – Science- All about me and other animals



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

Expectations

Children can:

- 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.
- Name and describe plants and vegetables that they have planted.
- Identify 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).
- compare and contrast familiar plants; describing how they are able to identify and group them,
- draw diagrams showing the parts of different plants including trees.
- Describe 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.
- ask simple questions and recognising that they can be answered in different ways
- observe closely, using simple equipment
- perform simple tests
- identify and classifying
- use their observations and ideas to suggest answers to questions
- gather and record data to help in answering questions

Manor Primary School – Science- All about me and other animals



Manor Primary School

Science Year 1: Investigating the seasons

Overview of the Learning:

In this unit children will observe changes across the four seasons. They will observe and describe weather associated with the seasons and how day length varies. They should observe and talk about changes in the weather and the seasons. They will 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

Core Aims

- develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics about humans and other animals
- develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.

Pupils should be taught to work scientifically. They will:

- ask simple questions and recognising that they can be answered in different ways
- observe closely, using simple equipment
- perform simple tests
- identify and classifying
- use their observations and ideas to suggest answers to questions
- gather and record data to help in answering questions.

Pupils should be taught about the changes in the seasons

- observe changes across the four seasons
- observe and describe weather associated with the seasons and how day length varies.
- Pupils should observe and talk about changes in the weather and the seasons.
- Pupils will 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.

Expectations

Children can:

- • observe changes across the four seasons

Manor Primary School – Science- All about me and other animals



- • observe and describe weather associated with the seasons and how day length varies.
- • Pupils should observe and talk about changes in the weather and the seasons.
- Pupils will 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.

Manor Primary School – *Science- All about me and other animals*

