St Cuthbert's Learning Organiser: Science
Key Stage 1 2024 – 2025
Miss Thompson

Autumn 1

Animals Including Humans

Skills

*observe and identify animals in the world around them.
*sort and classify animals into simple groups.
*make careful observations of animals in the same group and can use simple features to compare living things (animals).
* use simple secondary sources to find answers to help them sort and classify animals according to what they eat.
*use their senses to carry out simple practical tests, using simple equipment.
*can draw simple conclusions and can, with support, record and communicate their findings in a range of ways.
*use simple sorting diagrams to sort and classify objects (animals) into simple groups of their choice and are beginning to explain why they have sorted them this way.

Knowledge

In this topic children will learn about five of the groups that scientists use to classify animals: mammals, fish, birds, reptiles and amphibians. They will learn to identify the group an animal belongs to by its features and will classify animals according to their group. They will also learn about the different diets animals eat. Children will use all their knowledge from this unit to classify animals according to their own criteria.

Children will begin by looking at animal young and comparing them to their adults. They will look at how animals change as they grow up and be introduced to the life cycles of several varied common animals, including humans. They look in detail at how humans change as they grow older, drawing on their own observations. Children are introduced to the three basic needs of animals for survival (water, food and air). They will apply this knowledge, alongside research from secondary sources, to suggest ways to look after pets. The unit ends with children looking at healthy lifestyles, including the importance of exercise, healthy eating and hygiene. These healthy living lessons develop 'working scientifically' skills through investigating the impact of

Spring 1

Uses of Everyday materials

Skills

*Identify and name everyday materials.
*Identify different uses of everyday materials.
*Record their observations.
* Demonstrate and explain how shapes of objects made from some materials can be changed.
*Compare the uses of different everyday materials.
*Compare the suitability of different everyday materials.
*Describe simple properties of everyday materials.
*Sort objects 2 ways.

Knowledge

Uses of Everyday Materials topic will teach the children about the uses of everyday materials including wood, plastic, metal, glass, brick, paper and cardboard. Children then go on to compare the suitability of different everyday materials for different purposes. They explore how objects made of some everyday materials can change shape and how the recycling process is able to reuse some everyday materials numerous times. Children will learn to identify and name everyday materials and will have the opportunity to explore the properties of these materials

Reasoning & Progression

Children access this topic to be a follow on from the year prior looking at everyday materials but now looking into what these can used for in everyday life.

Cross Curricular Links

Spring 2

Seasonal Change

Skills

*observe changes across the four seasons.
*observe weather patterns
*describe weather patterns and changes.
*observe and describe how day length varies.

Knowledge

Studying seasonal change provides knowledge to the children about the world around them. Particularly in the UK the seasons are very distinct and this can provide the children with an understanding of why days seem longer or weather is more cold and rainy. This also provides the children with an understand of weather which links to variety of topics in geography within the KS1 curriculum.

Reasoning and Progression

The national curriculum for science aims to ensure that all pupils:
• develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
• 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.

Cross Curricular Links

Geography – studying weather and global warming in geography

Cultural Capital

Fieldwork in the local area

Vocabulary

Summer

Plants

Skills

*Suggest what they think a plant needs to grow and stay healthy.
*dissect and observe a seed, explaining which parts will grow into a plant and which part is its food.
*order the life cycle of a plant and begin to explain what happens at each stage.
*explain that plants need water, light and a suitable temperature to grow and stay healthy.
*explain what happens if a plant does not get everything it needs.
*investigate and describe how different plants need different amounts of water and light and different temperatures to grow and stay healthy.
*understand how some plants are suited to their habitats. Working Scientifically:
*recognise ways in which they might answer scientific questions.
* carry out simple practical tests, using simple equipment.
*observe the natural world around them.
*notice links between cause and effect.
*talk about their findings to a variety of audiences in a variety of ways.
*use simple features to compare living things

Knowledge

Children will learn what plants need to stay healthy. They will have the opportunity to carry out their own investigations into what plants need to grow well. Children will learn about the inside of a seed and learn about the life cycle of a plant. They will also learn how plants look when they don't get the things they need. Children will learn how plants have adapted to live in different environments around the world. Linking closely to their previous topic on living things and habitats.

exercise on our bodies and how handwashing is essential for good hygiene.

Reasoning & Progression

The National curriculum states the principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions about animals, including observing changes over a period of time, noticing patterns, grouping and classifying things.

Cross Curricular Links

Geography

Animals around the world - Research animals which only live in particular climates around the world.

Literacy

Pupils should be taught to:

- Write a set of instructions on how to look after hydiene

- Read non fiction texts about animals and Write an information page for example about what an animal needs to live and grow.

Cultural Capital

Fieldwork in local area

Vocabulary

Young, offspring, live young, grow, develop, change, hatch, lay, fly, crawl, talk, basic needs, survive, food, air, exercise, diet, nutrition, healthy, balanced diet, hygiene, germs, fruit and vegetables, proteins, dairy and alternatives, carbohydrates, oil and spreads, fat, salt, sugar, water.

Design and technology – using everyday materials to construct model rockets and also creating raincoats and boats out of recyclables.

Cultural Capital

Fieldwork in local area

Vocabulary

Wood, Plastic, Glass, Metal, Water, Hard, Soft, Smooth, Rough, Stretchy, Shiny, Absorbent, Transparent, Opaque, Properties, same, Different, Properties, Everyday materials, Grouping, Comparing

Autumn, Spring, Winter, Summer, Change, season, length, time

Reasoning and Progression

We carry out this study to develop the children's lifelong curiosity and interest in a wide variety of science topics. When planning for the science curriculum, we intend for children to have the opportunity, wherever possible, to learn through varied systematic investigations, leading to them being equipped for life to ask and answer scientific questions about the world around them. As children progress through the year groups, they build on their skills in working scientifically, as well as on their scientific knowledge, as they develop greater independence in planning and carrying out fair and comparative tests to answer a range of scientific questions.

Cross Curricular Links

Geography

Plants around the world - Research plants which only grow in particular climates around the world.

Literacy

Pupils should be taught to:

- Write a set of instructions perhaps for how to plant a seed/bean.

- Read non fiction texts about plants and Write an information page for example about what a seed needs to grow, using the beanstalk connective cards to help to extend sentences.

Cultural Capital

Fieldwork in the local area

Vocabulary

germination, shoot, seed dispersal, grow, food store, life cycle, die, wilt, seedling, sapling, sunlight, nutrition, light, healthy, space, air, bean plant, cactus, rainforest, desert, habitat, water, temperature, warm, hot, cold, habitat.