

Subject: Science

Year: 1

What are the aims and intentions

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.

Scientific skills:

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions.

Links to prior learning: EYFS – Understanding the world

**Past and Present Children at the expected level of development will:**

- Talk about the lives of the people around them and their roles in society;
- Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class; -
- Understand the past through settings, characters and events encountered in books read in class and storytelling.

**People, Culture and Communities Children at the expected level of development will:**

- Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps;
- Know some similarities and differences between different religious and cultural communities in this country, drawing on their experiences and what has been read in class;
- Explain some similarities and differences between life in this country and life in other countries, drawing on knowledge from stories, non-fiction texts and – when appropriate – maps.

**The Natural World Children at the expected level of development will:**

- Explore the natural world around them, making observations and drawing pictures of animals and plants; 15
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class;

• Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Term:	Topic:	Knowledge	Skills:	Key Questions
Autumn 1 & 2	Nurse, Nurse Animals including humans	<ul style="list-style-type: none"> <li>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</li> <li>identify and name a variety of common animals including, fish, amphibians, reptiles, birds and mammals</li> <li>Identify and name a variety of common animals that are carnivores, herbivores and omnivores</li> <li>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</li> </ul>	<ul style="list-style-type: none"> <li>To Observe and identify</li> <li>To Classify</li> <li>To use secondary sources</li> <li>To complete practical tests</li> <li>To draw a conclusion</li> <li>To record data</li> <li>To use sorting diagrams to sort and classify</li> </ul>	<ul style="list-style-type: none"> <li>•Can you identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals?</li> <li>•Can you describe and compare the observable features of animals from a range of groups?</li> <li>•Can you name and identify animals that are herbivore, carnivore or omnivore?</li> <li>•Can you name and locate parts of the human body and begin to make suggestions about what some parts of the body do?</li> <li>• Can you name the five senses and the part of the body they are related to. Children can explain how they use each of their senses?</li> <li>• Can you identify a variety of common animals?</li> </ul>
<p><b>Key Vocabulary:</b>            Fish, amphibians, reptiles, birds, mammals, pets, tongue, nose, eyes, ears, skin, taste, smell, sight, touch, hear, head, legs, eyes, neck, knees, hair, arms, face, mouth, elbows, ears, teeth, carnivore, omnivore, herbivore, meat, plants, names of animals</p>				
<p><b>Cultural Capital:</b>            This topic will link with topics covered in PSHE.            Durham learning curriculum boxes: Animals including humans, life processes, healthy life style.            October- World animal day            November- Science day</p>				
Spring 1	God Save the Queen- Seasonal Changes	<ul style="list-style-type: none"> <li>Observe changes across the 4 seasons</li> <li>Observe and describe weather associated with the seasons and how day length varies.</li> </ul>	<ul style="list-style-type: none"> <li>To Observe and describe seasonal characteristics.</li> <li>To gather information.</li> <li>To record information</li> <li>To identify patterns</li> <li>To interpret data</li> </ul>	<ul style="list-style-type: none"> <li>• Can you describe how day length varies depending on the season?</li> <li>•Can you identify changes in trees and in clothes that they were in each season?</li> <li>• Can you identify signs of the seasons?</li> <li>• Can you observe and describe the weather in the 4 seasons?</li> <li>• Can you explain how to stay safe in the sun?</li> </ul>

				• Can you explain how some animals adapt to the seasons?
Key Vocabulary: Season, month, summer, autumn, winter, spring, day, daytime, sun, day length, weather, wind, rain, snow, hail, sleet, fog, sun, hot, burn, warm, cold, animals, plants, trees, flowers, leaves, adapting, hibernating, migrating				
<b>Cultural Capital:</b> Durham learning curriculum boxes: seasons, individual season boxes- spring, summer, autumn, winter January- bird watching week				
Spring 2	Treasure Island- Plants	<ul style="list-style-type: none"> <li>• Identify and describe the basic structure of a variety of common flowering plants, including trees</li> <li>• identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li> <li>• Identify and describe the basic structure of a variety of common flowering plants, including trees</li> </ul>	<p>Identify common plants and trees Compare plants and trees. Observe changes over time. Group/sort plants and trees Draw and label plants and trees. Ask questions (that can be investigated or researched). Measure the growth of a plant</p>	<ul style="list-style-type: none"> <li>• Can you describe how to plant a bean?</li> <li>• Can you suggest a question about plants and a way we could answer it?</li> <li>• Can you identify and name common wild plants?</li> <li>• Can you gather information to answer a question?</li> <li>• Can you identify and name some garden plants?</li> <li>• Can you identify trees by their leaves?</li> <li>• Can you sort deciduous and evergreen leaves?</li> <li>• Can you identify and describe parts of plants and trees?</li> <li>• Can you talk about how a bean plant has grown?</li> <li>• Can you what a plant needs to grow well and give reason for their answer?</li> </ul>
Key Vocabulary: Common, wild plants, garden plants, deciduous, evergreen, plant, leaf, root, leaves, bud, flowers, blossom, petals, root, stem, tree, trunk, branches, leaf, root, fruit, vegetables, bulb, seed				
<b>Cultural Capital:</b> March-Science week Growing a plant together or encouraging the children to grow a plant at home Durham learning curriculum boxes: plants				
Summer 1	Magnificent Materials- Uses of everyday materials	<ul style="list-style-type: none"> <li>• Distinguish between an object and the material from which it is made</li> </ul>	<p>Identify common materials. Compare common materials. Sort/classify common materials. Observe changes over time.</p>	<ul style="list-style-type: none"> <li>• Can you identify and name different materials?</li> <li>• Can you tell the different between an object and the materials it is made from?</li> </ul>

		<ul style="list-style-type: none"> <li>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</li> <li>Describe the simple physical properties of a variety of everyday materials</li> <li>Compare and group together a variety of everyday materials on the basis of their simple physical properties</li> </ul>	<p>To make a prediction To perform simple tests</p>	<ul style="list-style-type: none"> <li>Can you describe the properties of everyday materials?</li> <li>Can you watch closely, test different materials, use what they have learnt to make a decision?</li> <li>Can you sort objects by their properties?</li> </ul>
<p>Key Vocabulary: Material, object, wood, plastic, glass, metal, water, rock, brick, paper, fabrics, elastic, foil, properties, hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy, not bendy, waterproof, not waterproof, absorbent, non absorbent</p>				
<p><b>Cultural Capital:</b> Durham curriculum boxes: Every day materials</p>				
Summer 2	Wonderful Weather – Weather.	<ul style="list-style-type: none"> <li>Name weather types in the UK.</li> <li>Identify daily changes in weather.</li> <li>Identify seasonal changes across a year.</li> <li>Recognise weather symbols.</li> </ul>	<ul style="list-style-type: none"> <li>Use world maps and globes to identify the UK and begin to locate other countries.</li> <li>Explain some dangers of the weather. <ul style="list-style-type: none"> <li>Locate hot and cold countries of the world.</li> </ul> </li> <li>Make comparisons between different places studied.</li> <li>Make simple observations about the weather in the UK.</li> <li>Use basic subject specific vocabulary.</li> <li>Ask simple geographical questions.</li> <li>Develop presentation skills.</li> </ul>	<ul style="list-style-type: none"> <li>What is weather?</li> <li>How does weather affect us?</li> <li>What is a weather forecast?</li> <li>Why do we need a weather forecast?</li> <li>What are the dangers of weather?</li> </ul>
<p>Key Vocabulary: rain, wind, weather, forecast, snow, hail, lightening, thunder, clouds, sunny, dangers, seasons, spring, summer, autumn, winter, counties, maps, United Kingdom.</p>				
<p>Cultural Capital:</p>				

Growing a plant together or encouraging the children to grow a plant at home  
Durham learning curriculum boxes: plants  
June-First day of summer