

Subject: Science Year: 2

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:

Year 1 topic development

- Everyday materials
- Plants
- Animals including humans

Term:	Topic:	Knowledge	Skills:	Key Questions
Autumn 1	Your Country Needs You!- Living things and their habitats	<ul style="list-style-type: none">• explore and compare the differences between things that are living, dead, and things that have never been alive• identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other	To Identify plants and animals To draw a map To categorise and give reason To gather and record information	<ul style="list-style-type: none">•Can you compare the differences between things that are living, dead and have never been alive?•Can you hap a habitat and identify what is in it?•Can you identify animals in their habitats?•Can you describe a habitat and the animals that live in it?•Can you identify how an animals is suited to its habitat?

				<ul style="list-style-type: none"> •Can you explain how living things in a habitat depends on each other? •Can you describe how animals get their food?
<p>Key vocabulary: Living, dead, never alive, habitats, micro-habitats, food, food chain, sun, grass, cow, human, alive, healthy, logs, leaf litter, stony path, under bushes, shelter, seashore, woodland, ocean, rainforest, conditions, hot, warm, cold, dry, damp, wet, bright, shade, dark</p>				
<p>Cultural Capital: Durham learning curriculum boxes: Habitats, environments Exploring habitats in the school grounds and local area. October- World habitat day, World animal day</p>				
Autumn 2	<p>What a Wonderful world- Living things and their habitats</p>	<ul style="list-style-type: none"> • identify and name a variety of plants and animals in their habitats, including microhabitats • describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. 	<p>To Identify plants and animals To draw a map To categorise and give reason To gather and record information</p>	<ul style="list-style-type: none"> •Can you compare the differences between things that are living, dead and have never been alive? •Can you hap a habitat and identify what is in it? •Can you identify animals in their habitats? •Can you describe a habitat and the animals that live in it? •Can you identify how an animals is suited to its habitat? •Can you explain how living things in a habitat depends on each other? •Can you describe how animals get their food?
<p>Key vocabulary: Living, dead, never alive, habitats, micro-habitats, food, food chain, sun, grass, cow, human, alive, healthy, logs, leaf litter, stony path, under bushes, shelter, seashore, woodland, ocean, rainforest, conditions, hot, warm, cold, dry, damp, wet, bright, shade, dark</p>				
<p>Cultural Capital: Durham learning curriculum boxes: Habitats, environments Exploring habitats in the school grounds and local area November- science day</p>				
Spring 1	<p>Fire, fire- Uses of everyday materials</p>	<ul style="list-style-type: none"> • identify and compare the suitability of a variety of everyday materials, including wood, metal, 	<p>To identify different materials. To classify materials. To compare materials.</p>	<ul style="list-style-type: none"> •Can you identify uses of different everyday materials?

		plastic, glass, brick, rock, paper and cardboard for different uses	To ask questions (that can be investigated or researched). To gather/record information To report on findings	<ul style="list-style-type: none"> •Can you identify and group the uses of everyday materials? •Can you compare the suitability of different everyday materials •Children can explain how the shape of objects made from some materials can be changed? •Can you talk about the inventor John McAdams?
Key Vocabulary: Material, object, wood, metal, plastic, glass, brick ,rock, paper, cardboard, rubber, squash, bend, twist, stretch, waterproof fabric,				
Cultural Capital: Durham learning curriculum boxes: Everyday materials				
Spring 2	Treasure Hunt – Plants	<ul style="list-style-type: none"> • observe and describe how seeds and bulbs grow into mature plants • find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 	To label main parts of plants and trees To describe the stages in the life cycle of a plant To make observational drawings To record the growth of a plant on a bar chart To use observation to explain how we can tell if a plant is living To set up simple comparative tests To make predictions	<ul style="list-style-type: none"> •Can you look closely at plants and trees and record what they see? •Can you plant seeds and bulbs and suggest how to care for them? •Can you explain the life cycle of plants? •Can you suggest a way we can tell that’s plants are living things? •Can you use observations to explain what plants need? •Can you describe what plants need to grow and stay healthy? •Can you observe and describe the growth of different plants?
Key Vocabulary: common, wild plants, garden plants, deciduous, evergreen, leaf, root, leaves, bud, flowers, blossom, petals, root, stem, tree, trunk, branches, leaf, root, fruit, vegetables, bulb, seed, water, light, suitable, temperature, germination, reproduction, grow, healthy				
Cultural Capital: March-science week April- Earth day Growing a plant in school or at home Cross curricular: drawing plants within art				

Durham learning curriculum boxes: Plants

<p>Summer 1</p>	<p>Mini MasterChef- Animals including humans</p>	<ul style="list-style-type: none"> • notice that animals, including humans, have offspring which grow into adults • find out about and describe the basic needs of animals, including humans, for survival (water, food and air) • describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. 	<p>To sort and classify animals To use scientific language to talk about their findings To use simple secondary sources To ask a simple scientific question To carry out practical tests To use observations to suggest answers to questions and draw a conclusion.</p>	<ul style="list-style-type: none"> • Can you identify and match several animal offspring and their adult form? • Can you describe the main characteristics of the offspring found in different animal groups? • Can you describe the main stages of at least two different animal life cycles? • Can you start to compare these life cycles? • Can you identify several ways that humans grow and develop through each life cycle stage? • Can you name the three basic needs of all animals to survive? • Can you describe the specific needs of a given animal? • Can you describe the effects of exercise and begin to explain the importance of exercise for the human body? • Can you identify several foods according to the basic food groups and can talk about the importance of a balanced diet? <p>Can you explain how to be hygienic and why this is important?</p>
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Key Vocabulary: Offspring, grow, adults, survival, water, food, air, exercise, hygiene, nutrition, reproduce, egg, chick, chicken, egg, caterpillar, pupa, butterfly, spawn, tadpole, frog, lamb, sheep, baby, toddler, child, teenager, adult

Cultural Capital:
 Visit to a farm

Durham learning curriculum boxes: Animals including humans, life processes
 May- World bee day, World turtle day

Summer 2	Sensational Safari- Uses of everyday materials	<ul style="list-style-type: none"> • Compare how things move on different surfaces. • find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching 	<p>To identify different materials. To classify materials. To compare materials. To ask questions (that can be investigated or researched). To gather/record information To report on findings</p>	<ul style="list-style-type: none"> •Can you identify uses of different everyday materials? •Can you identify and group the uses of everyday materials? •Can you compare the suitability of different everyday materials •Children can explain how the shape of objects made from some materials can be changed? •Can you talk about the inventor John McAdams?
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Key Vocabulary: Material, object, wood, metal, plastic, glass, brick ,rock, paper, cardboard, rubber, squash, bend, twist, stretch, waterproof fabric,

Cultural Capital:

Durham learning curriculum boxes: Everyday materials