



# Henleaze Infant School

## Our Science Curriculum



### Intent:

**Curiosity   Collaboration   Investigation   Knowledge**

At Henleaze Infant School our work begins with the knowledge children already have of the world. We help them to progress and secure their understanding and skills through the teaching of distinct science topics and opportunities for investigation. Through high quality, relevant and child led opportunities, our pupils investigate the life affirming world of science. With careful planning teachers support all children to explore their interests, raise enquiries and challenge their findings. Children cultivate skills to work scientifically and to question how best to find answers. Children are supported to take risks and look beyond their immediate experiences within Henleaze to the wider world and imagine their future. We draw on real world science that is pertinent to our children, learning about scientists and their contribution to society, encourage children to talk about their own ideas, explore their thinking and find out what they need to know to secure their knowledge.

### Implementation:

Science is at the heart of everything we do because we prize children's curiosity and engage with their interests. We actively promote thinking and talking to explore and clarify ideas in all of our teaching.

In Reception, science topics are planned to be the foundations for KS1 knowledge as well as to follow children's interests, for example children have learnt about melting ice caps and the implication for polar bears, children have observed fruit rotting, and each class has carried out a child led investigation into minibeasts. Science is explicitly taught in weekly lessons in KS1 where children learn to identify and develop the knowledge and skills needed to address misconceptions, improve accuracy and learn new terminology. Across the school, children engage in long term studies of, for example, plant growth and animal habitats, learning at a greater depth with more sophisticated understanding and vocabulary each year.

Children explore the work of scientists, including BAME scientists and past and present scientists. Examples include Waterproofing - Macintosh Yr2 , Metamorphosis -Maria Sibylla Merian YrR. This helps children to relate to science and they understand some of its real world uses.



**Henleaze Infant School**

## Whole School Curriculum Map for Science

Term	EYFS	YEAR 1	YEAR 2
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<p><b>Autumn 1</b></p>	<p><b>ELLI animals</b> - learning about owls and chameleons.</p> <p><b>Understand the effect of changing seasons on the natural world around them.</b></p> <p>Using senses to investigate signs of seasonal change (Autumn wonder walk).</p> <p>Learning about the 'past me' including growth and change (All About Me box).</p>	<p><b>Animals including humans</b>  Identify parts of the human body  To know that we have 5 senses  To know that all animals, including humans, grow and change as they become older</p>	<p><b>Uses of everyday materials</b>  <b>Grouping and classifying</b>  Find out how the shape of solid objects made from some materials can be changed by squishing, bending, twisting and stretching</p>
<p><b>Autumn 2</b></p>	<p><b>ELLI animals</b> - learning about Tortoises, Cats, Bees and Spiders.</p> <p><b>Understand the effect of changing seasons on the natural world around them.</b></p> <p>Using senses to investigate signs of seasonal change (Winter wonder walk).</p> <p><b>Explore the natural world around them</b>  Groups of children attend Forest School.</p>	<p><b>Seasons and seasonal change</b>  Elicitation; What is weather?  Weather - how it affects us. Identify at least 4 kinds of weather  Weather - introduce the long term weather watch study</p>	<p><b>Uses of everyday materials</b>  Waterproof materials (Macintosh)boats and floating, suitability of materials</p> <p><b>Carrying out simple comparative tests</b>  Changing state of ice</p> <p><b>Communicate their ideas, what they do and what they find out in a variety of ways</b></p>

<p><b>Spring 1</b></p>	<p><b>Where I live</b></p> <p><b>Explore the natural world around them.</b></p> <p>Noticing natural and built up features of my community.</p> <p><b>Understand the effect of changing seasons on the natural world around them.</b></p> <p>Using senses to investigate signs of seasonal change (Spring wonder walk).</p> <p><b>Explore the natural world around them</b></p> <p>Groups of children attend Forest School.</p>	<p><b>Everyday materials</b></p> <p><b>Grouping and classifying</b></p> <p>Material comparison based on properties</p> <p>Suitability for use/ houses-</p> <p>Investigation of three little pigs houses</p> <p>Recycling effect on environment</p>	<p><b>Animals including humans</b></p> <p>find out about and describe the basic needs of animals including humans for survival (water, food, air, shelter)</p> <p>What do animals need to survive?</p>
<p><b>Spring 2</b></p>	<p><b>Places that are different to where I live</b></p> <p><b>Recognise some similarities and differences between life in this country and life in other countries</b></p> <p>Learning about polar regions and Investigations involving ice</p> <p>Learning about polar and safari animals</p> <p><b>Explore the natural world around them</b></p> <p>Groups of children attend Forest School.</p>	<p><b>Animals including humans</b></p> <p>Describe the importance of human exercise</p> <p>Eating the right amounts of different types of foods</p> <p>Diet and habitat link to writing</p> <p>Personal hygiene</p>	<p><b>Animals including humans</b></p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene</p> <p>Living, dead, never alive; food chains</p> <p><b>Communicate their ideas, what they do and what they find out in a variety of ways</b></p> <p>Application of habitat knowledge:</p> <p>Design a planet for a hedgehog</p>

<p><b>Summer 1</b></p>	<p><b>Growing Things; Plants</b></p> <p>Planting seeds and making observations.</p> <p>Sowing a variety of seeds and nurturing them as they grow</p> <p><b>Explore the natural world around them</b> Groups of children attend Forest School.</p>	<p><b>Plants</b></p> <p>observe and describe how seeds to grow into plants</p> <p>Find out what plants need to grow</p> <p><b>Communicate their ideas, what they do and what they find out in a variety of ways</b></p> <p>Plant seeds as a class for enquiry in different conditions</p>	<p><b>Living things and their habitats</b></p> <p>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</p> <p>identify and name a variety of plants and animals in their habitats, including micro habitats</p>
<p><b>Summer 2</b></p>	<p><b>Growing Things; Minibeasts</b></p> <p>Investigating minibeasts.</p> <p>Observational study - Butterflies.</p> <p><b>Understand the effect of changing seasons on the natural world around them.</b></p> <p>Using senses to investigate signs of seasonal change (Summer wonder walk).</p> <p><b>Explore the natural world around them</b> Groups of children attend Forest School.</p>	<p><b>Animals including humans</b></p> <p>Life Cycle of a caterpillar- Discuss observations as they change</p> <p><b>Grouping and classifying</b></p> <p>Animal classification</p> <p>Linked to PSHE - Changing Bodies</p>	<p><b>Plants</b></p> <p>observe and describe how seeds and bulbs grow into mature plants</p> <p>find out and describe how plants need water , light and a suitable temperature to grow and stay healthy</p>