

## The Science Curriculum at Bernards Heath Infant School

| Subject: Science Year 1 Learners  |   |   |
|---|---|---|
| Skills  | Knowledge   | Context – What this looks like in the classroom:  |
| <p>The main focus of Science teaching through Key Stage 1 is to enable pupils to experience and observe first-hand the natural and humanly constructed world around them. They should be encouraged to ask questions about what they notice.</p> <ul style="list-style-type: none"> <li>• Explore</li> <li>• Predict</li> <li>• Test and observe</li> <li>• Explain</li> </ul> <p><i>These words are displayed in each classroom, with a corresponding picture. They have been agreed by the school staff and are regularly used in learning objectives for lessons.</i></p> <p>Children are expected to demonstrate the meaning of these skills both verbally and through written recordings as appropriate.</p> | <p><b><u>Everyday Materials</u></b></p> <ul style="list-style-type: none"> <li>• Identify a variety of materials, wood, metal, plastic- and describe their simple properties. E.g wood is hard and smooth.</li> <li>• Compare and group a variety of everyday materials discussing similarities and differences.</li> </ul> <p><b><u>In the Garden</u></b></p> <ul style="list-style-type: none"> <li>• Identify and name a variety of common, wild and garden plants, including deciduous and evergreen trees.</li> <li>• Label and describe the basic structure of a variety of common flowering plants, including trees.</li> </ul> <p><b><u>Different Animals</u></b></p> <ul style="list-style-type: none"> <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> <li>• Identify, name and draw basic parts of the human body- say which part is associated</li> </ul> | <ul style="list-style-type: none"> <li>• In the autumn term we focus on living things including, plants and trees. Children learn about a variety of common plants and deciduous and evergreen trees. They will be discussing what a plant needs to survive and carrying out plant investigations. In addition we study seasonal changes and make observations over a period of time.</li> <li>• We learn about different animals in the spring term. We talk about their habitats and features of animals as well as adaptations they have made to survive in a specific environment. In the theme 'Protect our Animals,' we study endangered creatures and world issues (deforestation). We learn what is meant by the terms carnivores, herbivores and omnivores. We look at the human skeleton and discuss how we are animals too, and compare humans and other animals.</li> <li>• In the summer term we learn about materials. We explore a variety of materials and talk about their properties, e.g. wood is hard and strong. We discuss the different uses of materials and bring our learning to life when we study homes around the world- e.g. mudhuts, igloos and rainforest tree houses. The children make designs for their</li> </ul> |

with each sense.

**Seasons**

- Observe changes across the four seasons.
- Observe and describe the weather associated with the seasons and how day length varies.

own home and build it using a variety of materials. We bring our Science learning to an end with 'WOW Science.' This has a particular focus on the key scientific skills and processes. One example investigation is whether an orange floats better with its skin on or off. Children are encouraged to make observations, predictions and explain their thinking before designing an investigation to find out the answer.

## The Science Curriculum at Bernards Heath Infant School

| Subject: Science Year 2 Learners   |   |   |
|--|---|---|
| Skills   | Knowledge   | Context - What this looks like in the classroom:  |
| <p>The main focus of Science teaching through Key Stage 1 is to enable pupils to experience and observe first-hand the natural and humanly constructed world around them. They should be encouraged to ask questions about what they notice.</p> <ul style="list-style-type: none"> <li>• Explore</li> <li>• Question</li> <li>• Predict</li> <li>• Test and observe</li> <li>• Results</li> <li>• Explain</li> </ul> <p><i>These words are displayed in each classroom, with a corresponding picture. They have been agreed by the school staff and are regularly used in learning objectives for lessons.</i></p> <p>Children are expected to demonstrate the meaning of these skills both verbally and through written recordings as appropriate.</p> | <p><b><u>Habitats</u></b></p> <ul style="list-style-type: none"> <li>• Explore and compare the differences between things that are living, dead, and things that have never been alive.</li> <li>• 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.</li> <li>• Identify and name a variety of plants and animals in their habitats, including microhabitats.</li> <li>• Describe how animals obtain their food from plants and other animals. Explore the idea of a simple food chain and identify and name different sources of food.</li> </ul> <p><b><u>Uses of everyday materials</u></b></p> <ul style="list-style-type: none"> <li>• Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, brick, glass, paper and cardboard for particular uses.</li> <li>• Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting</li> </ul> | <ul style="list-style-type: none"> <li>• In the Autumn term we begin our science learning with a focus on materials. We list a variety of materials and discuss their properties as well as compare suitability for different purposes. We study how particles behave in a solid liquid and gas and investigate reversible and irreversible changes. We move our learning on to finding out about electricity. We start by learning about electrical safety. We then create a simple circuit and talk about components. We also find out what happens when a circuit is broken and how it can be fixed. We find out about strong and weak currents and we explore what happens when we run multiple bulbs on a circuit with one battery. We discuss and test what is meant by the terms insulator and conductor.</li> <li>• In the Spring term we learn about plants and animals through our theme 'Mission Possible Destination Peru.' We use decision trees (A series of questions with yes/no answers) to categorise different animals and group them according to various criteria. Children</li> </ul> |

and stretching.

- Explore reversible and irreversible changes and give reasons for these.

#### **Growth and Survival**

- Animals, including humans, have offspring that grow into adults.
- Find out about and describe the basic needs of animals, including humans (water, food, air).
- Describe the importance, for humans, of exercise, hygiene and eating the right amounts of different types of food.

#### **Growing Plants**

- Observe and describe how seeds and bulbs grow into mature plants.
- Describe how plants need water, light and a suitable temperature to grow and stay healthy.

have opportunities to think of their own questions for investigations and plan investigations with support from the teacher to find the answers. The idea of a fair test is explored and children are taught about only changing one thing when carrying out an investigation.

- In the summer term we learn about humans and through Healthy Schools and Science weeks children are taught about safe use of medicines and the dangers of eating or drinking unknown substances. This term is also where children learn about changes in humans as they grow older and the essential things they need to stay alive.