

## Banks Lane Infant & Nursery School

### Working together, nurturing excellence

Science teaches us about the wonder of the world and helps us to explain what happens, how things behave and to analyse reasons. By learning about the work of scientists, we can recognise our values in their work and understand that we can make a difference to our world.

Year 1

#### Y1-1:1 Into The Woods

**Plants:** Identify trees by looking at leaf types, know the basic structure of a tree including its parts and their functions and find out which trees / plants provide fruits and seeds for animals to eat.

Animals inc Humans: Identify and name a range of Woodland Animals, learn how animals prepare for seasonal change (autumn to winter) e.g. burying conkers etc. Seasonal Changes: Learn how trees can help us to decipher the season, deciduous and evergreen trees (plants).



#### Y1-1:2 The Land Before Time

Animals Including Humans: Learn the difference between carnivores, herbivores and omnivores, identify different categories of animals e.g. mammals, birds, amphibians, reptiles and fish, investigate the effects that different teeth have on eating. Famous Scientist: Mary Anning. Plants and Seasonal Change: Investigation: Do deciduous trees shed the same amount of leaves every day?



#### Y1-2:1 London's Burning

**Animals inc Humans/Seasonal Change:** Learn how and which Animals, including Humans, adapt or migrate in the winter months. Learn about the changes in weather across the four seasons and observe and identify the changes from Autumn to Winter (observing over time).

**Everyday Materials:** Identify the materials used to build a 17<sup>th</sup> Century House and distinguish between the object and the material from which it is made, describe the simple physical properties of these materials, identify the materials used to rebuilt the houses in London after the Great Fire and discover why these materials were used instead.



Y1-2:2 Once Upon A Time

**Plants:** Sort plants into different categories and provide justifications for the groups, plant a variety of seeds, observe its growth and record our observations, identify different parts of a plant and learn the functions of each part. **Animals Including Humans:** Learn about our five senses. **Seasonal Change:** Use our senses to explore the world around us and identify signs of spring.



Y1-3: 1 What a Wonderful World! **Animals Including Humans:** Identify what factors categorise different endangered animals into groups of mammals, birds, reptiles, amphibians and fish. **Everyday Materials:** Name a variety of materials and sort them for recycling, compare and group objects based on the material that they're made from, understand reduce, reuse and recycle and investigate whether a plastic or paper bag is the strongest (fair testing). Famous Scientists: Sten Gustaf Thulin, Charles Stilwell and Margaret E Knight (secondary



#### Y1-3:2 Out Of This World

**Seasonal Change:** Observe changes from spring to summer, explore wind, rainfall and shadows in relation to seasons, observe the changes in day length, and discover how day and night / light and dark are apparent (sun and Earth). Famous Scientist: Mae Jemison.

# Year 2

Y2-1:1 There's No Place Like Home

**Use of Everyday Materials** - Investigate which material is the most suitable for a roof (focus on waterproof materials). Identify and compare the suitability of a variety of everyday materials including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.

**Plants** - Plant a variety of bulbs to observe over time. Compare bulbs and seeds and the plants they produce.



Y2-2:1 Where The Dragons Dance Animals Including Humans - Describe the important effects of exercise, eating a balanced diet and personal hygiene on humans. Investigate the effects of exercise on heart rate. Notice that animals including humans have offspring which grow into adults and how not all offspring looks the same as the adult.

Prepare a healthy meal—link to Design & Technology.

#### Y2-3:2 It's a Bugs Life!

**Plants** - Plant a variety of flowering plants and observe how seeds and bulbs grow into mature plants. Grow herbs and investigate and describe why plants need water, light and a suitable temperature to grow and stay healthy. Identify and name a variety of wild and garden plants. **Living Things and their Habitats** - Explore and compare the differences between things that are living, dead and things that have never been alive. Create a habitat for a mini-beast and describe how different habitats provide for the basic needs of the animals. Continue to identify and name a variety of plants and animals in their habitats including micro-habitats.



Y2-1:2 What the Dickens?

Y2-2:2/3:1 Into the Wild

**Use of Everyday Materials -** Investigate which material is the most suitable for a mop (focus on absorbency). Identify and compare the suitability of a variety of everyday materials including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Famous scientist: Thomas W. Stewart.



**Living Things and their Habitats** - Discover that animals live in habitats to which they are suited and describe how different habitats provide for the basic needs of the animals. Identify and name a variety of plants and animals in their habitats including micro-habitats. Describe how animals obtain their food from plants and other animals using the idea of a simple food chain and name different sources of food.

**Animals Including Humans -** Learn about Mothers and their young and how the young grow to be adults. Children will learn about the basic needs for survival of animals including humans.

**Use of Everyday Materials** - Investigate how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.



