

SCIENCE CURRICULUM INFORMATION

YEAR 1

Year 1 science curriculum covers a variety of topics: ourselves; sorting and using materials; sound and hearing; light and dark; growing plants; and pushes and pulls. During these lessons the girls are encouraged to communicate their observations, make comparisons, ask questions and make suggestions, whilst becoming involved in practical activities to enhance their understanding and consolidate their learning.

YEAR 2

Girls in Year 2 study the following topics: health and growth; electricity; changing materials; plants and animals in the environment; and variation. They have the opportunity to make observations and predictions, carry out practical work and record results in a table in order to extrapolate information from their results. The concept of fair testing is introduced, as are basic research skills.

YEAR 3

During Year 3 the girls gain knowledge in the following areas: characteristics of materials, magnets and springs; rocks and soil; teeth and healthy eating; and light and shadows. They explore the range of materials we use, the properties which characterise them, and how to choose a material for a particular use. They learn about forces, magnetic attraction and repulsion, compression and stretching of springs and elastic bands and which materials are attracted to magnets. They identify the different types of rock and their characteristics, and how each rock is broken down into pebbles and soil. The girls study personal health and how this relates to diet. They also learn how teeth relate to diet and the importance of dental care. Finally, they discuss the relationship between light, an object and shadows, and the apparent movement of the sun and associated changes in shadows. Throughout these themes experimental and investigative work provides opportunities for the class to predict, to make observations and recordings.

YEAR 4

During Year 4 the girls study five main topic areas: moving and growing; solids and liquids; and how they can be separated, keeping warm; circuits and conductors; and habitats. They explore the human skeleton and muscles, using the terms vertebrate and invertebrate, and classifying living things. They learn about the various properties of solids and liquids and investigate how they can be separated. They look at careful measurements of temperature, and explain temperature changes using scientific knowledge. They study electrical safety, components of a circuit, conduction of electricity and how to change the brightness of a bulb and the speed of a motor in a circuit. Finally, the girls learn about and identify different habitats, identify the structure of a food chain, make reliable observations of organisms and discuss environmental protection.

YEAR 5

The topics studied in Year 5 are: gases around us; changing sounds; changing states, the earth, sun and moon; and keeping healthy. The girls learn to distinguish gases from solids and liquids by their properties and about the use of some important gases and where gases are found. Next, they investigate sound, how sounds are produced by vibrations which travel from the source through a variety of materials and how pitch and loudness can be altered. Year 5 also explore how the state of materials can be changed and reversed. They learn about the shapes and relative sizes of the Earth, sun and moon, how they move in relation to each other, and how these movements relate tonight and day. Finally, they discuss the many aspects to keeping healthy, investigate the heart and how the heart beat is affected by exercise, movement and exercise, and learn about the digestive and respiratory system.