



The Mall School

## Curriculum Guide

### Science – Spring Term 2020

#### Year 4

Teacher: Mrs Beth Salah / Dr Alistair Miller  
Lessons: One double and two single lessons per week  
Homework: 1 x 20 minutes

#### Introduction:

The science syllabus incorporates topics related to physics, chemistry and biology. Over the course of Year 4 the boys will learn about safety in the laboratory including the use of the Bunsen burner, investigative methods and skills, measurement, the states of matter; solid, liquid and gas, mixing and separating substances, temporary and permanent changes, materials and their uses, energy, forces, plants and animals. Whilst learning about each topic the boys will be given many opportunities to carry out practical experimental work in order to develop their investigation abilities and techniques. There will be an end of year examination in the summer term which will have an emphasis on using and applying their scientific knowledge in differing scenarios.

#### Key Objectives:

##### Teeth, Eating and Digestion

- To be able to identify and classify carnivores, herbivores and omnivores.
- To be able to construct and interpret a variety of food chains.
- To identify the different types of teeth in humans and identify their functions.
- To explore different ways of keeping teeth healthy.
- To investigate how the digestive system works.
- To be able to describe the functions of the basic parts of the digestive system.
- To explore the effects of different foods and drink on teeth.

##### States of Matter

- To compare and group materials together according to whether they are solids or liquids.
- To identify and explore the properties of gases.
- To observe that materials change state when they are heated or cooled.
- To research the temperature in degrees Celsius (°C) at which materials change state.
- To understand the process of evaporation.
- To understand the process of condensation.
- To identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

#### Resources:

All boys must bring the following equipment to all lessons:

Pen (blue ink), pencil, rubber, pencil sharpener, 30cm transparent ruler, colouring pencils, and a glue stick.

All boys will complete written work and diagrams in their exercise books.