



The Mall School

Curriculum Guide

Science – Spring Term 2020

Year 6

Teachers: Dr Alistair Miller
Lessons: One double and two single lessons per week
Homework: 1 x 30min from the spring term

Introduction:

The science syllabus incorporates topics related to physics, chemistry and biology. Over the course of Year 5 the boys will learn about safety in the laboratory; metals, elements, chemical reactions and the atom; healthy bodies, diet and exercise; electricity and circuit components; climate change; evolution, inheritance and genetics; and classifying organisms and the nature of micro-organisms. There will be an assessment after each topic studied and an end-of-year exam in the summer term. Boys will have many opportunities to carry out practical experimental work in order to develop their investigation skills and techniques; they will gain an understanding of key scientific concepts; and they will develop an appreciation of the applications of science to our lives, the historical context of scientific discovery, the contributions of great scientists of the past, and modern-day research.

Key Objectives:

Changing circuits

- To know the two forms of electricity (static & current), and the need for a circuit
- To recognise & use circuit symbols, know the basic terminology of electricity & circuit components
- To be able to construct various circuits
- To investigate how the brightness of a bulb and/or speed of a motor can be changed
- To understand how electricity is generated
- To understand the main issues relating to climate change and global warming

Evolution, inheritance & genetics

- To understand that the characteristics of living things can be inherited
- To identify how animals & plants are adapted to their environments
- To understand how adaptation leads to evolution
- To understand how human beings have evolved over time
- To know Darwin's contribution to our understanding of evolution
- To understand the role of genes in evolution, and 'genetic engineering'

These key objectives will be covered alongside others in the units of work in each term. The topic areas to be covered for the Spring Term are as follows:

- Changing circuits
- Climate change

- Evolution, inheritance & genetics

Resources:

All boys must bring the following equipment to all lessons:

Pen (black or blue), pencil, rubber, pencil sharpener, 30cm ruler, calculator, colouring pencils, and a glue stick.