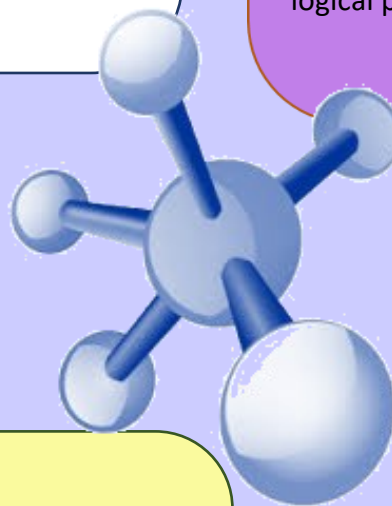


### Overview

Students will build on their knowledge gained in year 7 in the three main areas of science. They will study energy, forces and waves from Physics, Organisms, Genes and Ecosystems from Biology and Matter, reactions and the Earth from Chemistry. Students will have the opportunity to do practical work in all these subjects.

# Year 8 Science



### Term 3

In this term we put a lot of our knowledge across all 3 disciplines together to look at the water cycle and carbon cycle and their place in sustaining the world. We introduce the ideas that underpin the science of climate change and what we can do to reduce the impact of this, locally and globally. In Biology we build on year 7 and 8 knowledge on cells and ecology and analyse theories of evolution, with particular focus on Charles Darwin.

### Term 1

Students will build on their knowledge from year 7 and learn about forces and how these support our understanding of elasticity, motion and pressure. In Chemistry we build on previous knowledge of elements and compounds and learn about matter, the periodic table and polymers. We look for example at the reactivity of the group 1 metals with water and the use of the noble gases. In Biology we look at two of the main processes within the human body; respiration and digestion. Investigating the biological processes in each one.

### Term 2

We begin with a look at magnets and electromagnets referring back to work on circuits in year 7. Students complete a lot of practical investigation work around reactions such as exothermic, endothermic, combustion, and the conservation of mass in reactions. Having looked at biological processes in humans, we move onto looking at these in plants, in particular the role of photosynthesis in providing the energy for plants, and ultimately all living things. We link this energy transfer to other types of energy transfer by conduction, convection and radiation.

