



SCIENCE - YEAR 9

Chemistry: Earth

Within this module students will learn there is only a certain quantity of any resource on Earth, the extraction processes of certain elements and the importance of recycling. We will also consider how carbon is recycled through natural processes in the atmosphere, ecosystems, oceans and the Earth's crust, including processes such as photosynthesis and respiration.

Biology: Genes

Students will learn all about what makes them who they are, examining DNA and how it is arranged into genes on chromosomes. They will be able to explain why offspring are not identical to but share some characteristics with both parents. In addition, we will look the Darwin's theory of evolution, natural selection, factors that affect extinction and the importance of biodiversity.

Physics: Energy

We will examine the differences between energy and temperature and consider the processes of thermal energy transfer by conduction, convection and radiation and the factors that affect each process. Linking to energy transfers we will define work as energy transferred when a force moves an object and look at simple machines like levers and pulleys which can make work easier by reducing the force needed.

Physics: Waves

In our final topic of Key Stage 3 we will study the transfer of energy through waves, the key characteristics of transverse and longitudinal types and how their properties relate to the amount of energy transferred. We will also look at the features and properties of the electromagnetic radiation, recognising that visible light is just one section of this spectrum.

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