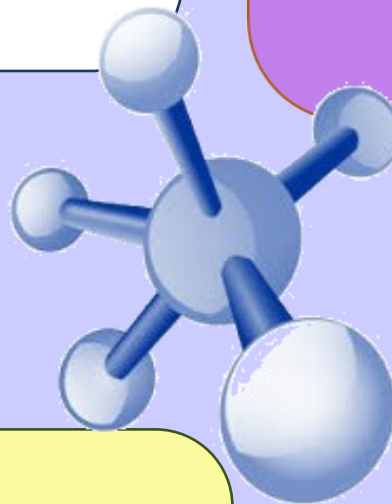


Overview

Students will begin with looking in more depth at some of the topics covered at Key Stage 2. For biology this includes diet, nutrition and organ systems in humans. In chemistry, the structure of the Earth and composition of the atmosphere is analysed with lots of opportunities for practical work throughout the year. In Physics, students will begin with topics that fundamentally underpin all 3 disciplines of science; Energy and the Particle model. Each topic builds on previous knowledge taught throughout the year.

Year 7 Science



Term 3

With a solid understanding of atoms, elements and mixtures, students will use a range of techniques to separate mixtures.

Everything students have covered so far has been at the smaller end of the size scale. Students will make a big jump and start to look into space and the celestial bodies that make up the universe and how they react with each other. Gravity will be introduced in this topic.

Students step out of looking at individual organisms and begin to look at how organisms interact creating complex ecosystems. Students will collect data using sampling techniques.



Term 1

Students will begin with looking in more depth at some of the topics covered at Key Stage 2. For biology this includes diet, nutrition and organ systems in humans. As students progress through this unit they will learn about the smallest building blocks of life 'The Cell'.

In physics students look at two topics that are fundamental to all three science disciplines. The different energy stores are named and how energy is transferred between these stores looked into in detail. Students will look at the particle model of solids, liquids and gases and the similarities and differences between each model. physical and chemical changes.

In Chemistry, students with a topic they have briefly studied at primary school. They will go into depth about the structure of the earth and composition of the atmosphere then move onto looking into the three different types of rock.

Term 2

Having looked in detail at animal cells, students will now look in detail at the plant cell. They will compare the similarities and differences between the two and then look at the function of one of the newly introduced organelles, the chloroplast, and its role in photosynthesis.

Following on from particle model, atoms, elements and compounds are briefly introduced and the differences between them explained. Students will use this knowledge and their introduction to chemical changes to find out how atoms and molecules react with each other, looking specifically at the rearrangement of atoms and how to represent a chemical reaction using formula and equations.

Students will construct series and parallel circuits and will learn a range of circuit symbols and be introduced to key principles, current, potential difference, and resistance. The basics of magnetism and static electricity are introduced.

Transverse and longitudinal waves in the form of sound and light waves are introduced and pupils will look in depth at sound waves and how to calculate the frequency and amplitude. Students will look at how sound waves can be used.