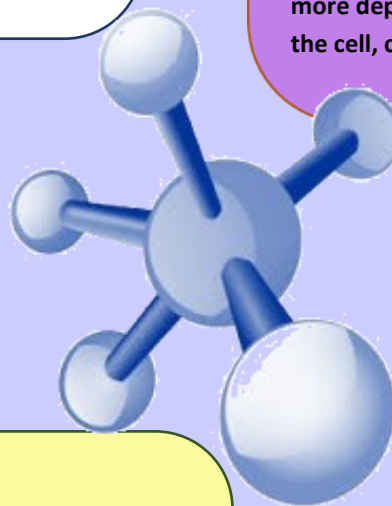


Overview

Students will build on their knowledge gained in year 7 and 8 to develop and deepen their understanding of topics in chemistry, biology, and physics.

Year 9 Science



Term 1

Having completed in depth units on energy changes, bonding and atomic structure pupils use this information to look at specific examples of chemical reactions. Starting with reactions of metals and moving through to neutralisation and making salts they conclude this topic exploring electrolysis.

Students are familiar with two types of eukaryotic cell and have been briefly introduced to the structure of the prokaryotic cell. The term pathogens is key to this topic and examples of viral, bacterial and fungal pathogens are researched. The plasmodium species of protist are identified as causing malaria and the life cycle and impact on the population is studied.

Electricity has been split up into appliances and circuits. Appliances is covered first and moves through alternating and direct current, plug and electrical power, giving an opportunity to recap manipulating equations to change the subject.



Term 2

Students will spend time consolidating this fundamental topic, looking again at atomic structure, the history of the atom, separating mixtures and the periodic table. They will focus on developing their understanding of the atomic model and introducing terms like isotopes.

All students will get the opportunity to study space and build on the knowledge of celestial bodies and gravity pupils move onto the life cycle of stars, satellites and the big bang.

Students get the opportunity to consolidate their knowledge on animals and plant cells and organelles. They study transport across membranes in more depth, looking at osmosis and active transport. Delving deeper into the cell, chromosomes, cell division and stem cells are studied.

Term 3

Bonding has been introduced in Y8, but only briefly. This is an opportunity for students to explore the three types of bonding that they require at this stage. Step by step knowledge of the formation of each type of bond is imparted and the properties of the simple and complex structures formed from these bonds are taught.

Building on the energy topics in y7 and y8 where students studied energy stores, energy changes, power and energy resources, pupils will be looking at specific heat capacity and latent heat.

