



Science Curriculum Overview

Key Stage 3- Year 9

Overview

Year 9 is a transition period to IGCSE courses which are externally assessed by Cambridge International Examiners in Year 11. At BSN we take a selection of IGCSE material from each field of science to help students both adapt to the new more rigorous material and make informed decisions about which fields of science they would like to study in Year 10.

Biology

Students first learn how to classify living organisms into different categories based on their characteristics and behaviours. Students then learn about cells, the building blocks of all living organisms. Students focus on the structure of cells, the different types of cells, and how substances go in and out of cells. Students will conduct practical work to study the processes of diffusion and osmosis.

Chemistry

Students first learn the kinetic particle theory which is a model for explaining the behaviour of substances. Once students are proficient at using the model they will learn about atoms, the building blocks of all material substances. Students focus on atomic structure, hierarchy and representation before moving on to the different types of bonding between atoms. Students are also introduced to variety of different equipment which they use to measure properties of test for and purify specific substances.

Physics

Students learn how to describe, represent and explain motion. Students are first introduced to a variety of equipment that they will use to measure the properties of objects. Students will then investigate the motion of objects before learning about forces and their effects on an object's motion. Students also learn the importance of using mathematics as a language and a problem-solving tool.

Practical Work

Students learn how to express specific correlations between quantities through investigating the motion of both falling objects and colliding objects. Students develop the skills of presenting their work clearly through different kinds of tables and graphs.