



Overview: Welcome to BTEC Applied Science. The bridge between GCSE and A level is a big step up, it is also an exciting one.

This year you will look at the fundamental foundations of Chemistry: The periodic table, atomic structure and practical techniques. In addition to this you will look at the structure and function of cells and tissues. Waves will also be explored, all underpinned by developing practical skills.

# Year 12

## Applied Science BTEC

### Unit 2 Scientific Procedure and techniques (Terms 2 +3)

During this practically based unit you will develop the skills of titrations and calorimetry to determine concentrations and cooling curves. You will also look into the practical procedure of chromatography and use this to identify components present within mixtures. This unit will then conclude with a review how your scientific skills have developed.

### Unit 1 Principles of Applied Science (Term 1)

#### Atomic structure, Periodicity, Bonding and Quantitative Chemistry.

How the fundamental particles are arranged to form atoms, different chemical bonds and the properties of this. Also trend within the periodic table.

#### Structure and function of cells and tissues

The structure of cells and tissues relating this to specialisation and the function of these cells and tissues.

#### Waves.

The fundamentals of waves and how this links to their use in communication and the electromagnetic spectrum.

### Unit 3 Scientific Investigation skills

(Terms 2 +3)

During this unit you will focus on the development of your working scientific skills including planning, conducting, representing data and concluding/evaluating an investigation.

These skills will be developed through the lens of enzymes, diffusion, plants, fuels and electrical circuits.