



# BTEC Applied Science Curriculum Map

## FURTHER STUDY

University – STEM Subjects  
Apprenticeships – STEM Subjects

## CAREER PATHS

Engineering, medicine & healthcare,  
general science, researcher, forensics

## SKILLS

Research, analysis, practical/investigation,  
problem-solving

## INTEREST

A continued passion and love of learning about  
science

### UNIT 8 – LYMPHATIC SYSTEM

- Structure and function
- Health issues and treatment

**Links to GCSE:**  
Organisation, infection and response

**Links to the outside world:**  
Health issues

### UNIT 8 – MUSCULOSKELETAL SYSTEM

- Structure and function
- Health issues and treatment

**Links to GCSE:**  
Organisation, infection and response

**Links to the outside world:**  
Health issues

### UNIT 8 – DIGESTIVE SYSTEM

- Structure and function
- Health issues and treatment

**Links to GCSE:**  
Organisation, infection and response

**Links to the outside world:**  
Health issues



### UNIT 2 – PERSONAL DEVELOPMENT

- Personal responsibilities
- Interpersonal skills
- Professional practice

**Links to the outside world:**  
Self reflection and improvement

### UNIT 2 – CHROMATOGRAPHY

- Chromatography
- Applications of chromatography
- Interpreting a chromatogram

**Links to GCSE:**  
Chemical analysis

**Links to the outside world:**  
Chemicals in daily use, following methods

### UNIT 2 - CALORIMETRY

- Thermometers
- Cooling curves

**Links to GCSE:**  
Particle model of matter

**Links to the outside world:**  
Using thermometers, solids, liquids and gases

### UNIT 2 - TITRATIONS

- Calibrating equipment
- Preparing solutions
- Colorimetry

**Links to GCSE:**  
Titrations

**Links to the outside world:**  
Chemicals in daily use, following methods



### UNIT 3 – SCIENCE INVESTIGATION SKILLS

- Planning a scientific investigation
- Data collection and processing
- Drawing conclusions
- Enzymes
- Diffusion
- Plants
- Energy content of fuels
- Electrical circuits

**Links to GCSE:**  
Required practical activities, digestion, diffusion, specific heat capacity, electric circuits

**Links to the outside world:**  
Digestion and food, plants, electrics



## UNIT 3 EXAM

**YEAR 13**

## UNIT 1 EXAMS

### UNIT 1 - PHYSICS

- Waves
- Communications
- Electromagnetic waves

**Links to GCSE:**  
Waves, Electromagnetic Spectrum

**Links to the outside world:**  
Engineering, communications, musical instruments, medical physics

### UNIT 1 - CHEMISTRY

- Structure and bonding
- Periodic table
- Redox reactions

**Links to GCSE:**  
Atomic structure and the periodic table, bonding and properties of matter

**Links to the outside world:**  
Chemicals in daily life

### UNIT 1 - BIOLOGY

- Cell structure and function
- Cell specialisation
- Tissue structure and function

**Links to GCSE:**  
Cell biology, organisation

**Links to the outside world:**  
How the human body works

**YEAR 12**

## A01

Demonstrate knowledge of scientific facts, terms, definitions and scientific formulae

## A02

Demonstrate understanding of scientific concepts, procedures, processes and techniques and their application

## A03

Analyse, interpret and evaluate scientific information to make judgements and reach conclusions

## A04

Make connections, use and integrate different scientific concepts, procedures, processes or techniques

