



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