

University

Apprenticeships

Employment

Swanshurst School



BTEC Level 3 Applied Science Curriculum Road Map Year 13 Extended Diploma (Triple) 2023-2024



June
Retakes of exam units if required

May
Assignment 9C: Understand the role of hormones in the regulation and control of the reproductive system

May
Assignment 15D: Examine the uses of transducers, sensors and other measurement devices.

May
Assignment 6C & D: C: Safely undertake the project, collecting, analysing and presenting the results
D: Review the investigative project using correct scientific principles

March/April
Assignment 4C & 4D: C: Explore manufacturing techniques and testing methods for an organic solid; D: Understand how scientific information may be stored and communicated in a workplace laboratory

April
Assignment 8A: Understand the impact of disorders of the musculoskeletal system and their associated corrective treatments

April
Assignment 8B: Understand the impact of disorder on the physiology of the lymphatic system and the associated corrective treatment.

April
Assignment 8C: Explore the physiology of the digestive system and the use of corrective treatments for dietary related diseases.

February
Assignment 15C: Examine AC and DC production and health and safety aspects in domestic and industrial applications

January
Assignment 4A: Understand the importance of health and safety in scientific organisations;

January
Assignment 9A: Understand the interrelationship and nervous control of the cardiovascular and respiratory systems

January
Unit 3 Exam

February
Assignment 9B: Understand the homeostatic mechanisms used by the human body

January
Assignment 6B: Produce a plan for an investigative project based on the proposal

December
Assignment 4B: Explore the manufacturing techniques and testing methods for an organic liquid

December
Assignment 15A & B: A: Understand electrical symbols, units, definitions, relationships and properties of circuit components for use in the construction of circuits. B: Construct series and parallel circuits for use in standard electrical applications and measure electrical values.

October:
Assignment 14D: Investigate organic chemistry reactions in order to gain skills in preparative organic chemistry.

November
Assignment 6A: Undertake a literature search and review to produce an investigative project proposal

December: Unit 3 PPEs

September
Start exam unit 3
Coursework units 4, 6, 9, 15

September: Start exam Unit 3:

A Planning a scientific investigation: A1 Developing a hypothesis for an investigation; A2 Selection of appropriate equipment, techniques and standard procedures; A3 Health and safety associated with the investigation; A4 Variables in the investigation; A5 Method for data collection and analysis.

B Data collection, processing and analysis/interpretation: B1 Collection of quantitative/qualitative data; B2 Processing data.

C Drawing conclusions and evaluation: C1 Interpretation/analysis of data; C2 Evaluation.

D Enzymes in action: D1 Protein structure; D2 Enzymes as biological catalysts in chemical reactions; D3 Factors that can affect enzyme activity.

E Diffusion of molecules: E1 Factors affecting the rate of diffusion; E2 Arrangement and movement of molecules.

F Plants and their environment: F1 Factors that can affect plant growth and/or distribution; F2 Sampling techniques; F3 Sampling sizes

G Energy content of fuels: G1 Fuels; G2 Hazards associated with fuels; G3 Units of energy

H Electrical circuits: H1 Use of electrical symbols to design circuits; H2 Equations; H3 Energy usage

Year
13

