

Swanshurst School

BTEC Level 3 Applied Science Curriculum Road Map Year 12 Diploma (Double) 2023-2024



Year
13



May/June:
Unit 1/5 retakes

May
Assignment 11B: Explore how the process of cell division in eukaryotic cells contributes to genetic variation

May
Assignment 2A & 2D: A: Undertake titration and colorimetry to determine the concentration of solutions; D: Review personal development of scientific skills for laboratory work.

June
Assignment 11C & 11D: C: Explore the principles of inheritance and their application in predicting genetic traits; D: Explore basic DNA techniques and the use of genetic engineering technologies.

April
Assignment 2B: Undertake calorimetry to study cooling curves.

January:
Unit 1 and 5
Exams
Start
coursework
units: 2 and
11

March
Assignment 2C: Undertake chromatographic techniques to identify components in mixtures.

April
Assignment 11A: Understand the structure and function of nucleic acids in order to describe gene expression and the process of protein synthesis

Formative
assessments:
Unit 1 and 5

December
Unit 1 and 5 PPEs

Week 5
Induction
Assessment

Start exam Unit 1:

A Periodicity and properties of elements: A1 Structure and bonding in applications in science; A2 Production and uses of substances in relation to properties;
B Structure and functions of cells and tissues: B1 Cell structure and function; B2 Cell specialisation; B3 Tissue structure and function
C Waves in communication: C1 Working with waves; C2 Waves in communication; C3 Use of electromagnetic waves in communication

Start exam Unit 5:

A Properties and uses of substances: A1 Relating properties to uses and production of substances; A2 Structures, reactions and properties of commercially important organic compounds; A3 Energy changes in industry.
B Organs and systems: B1 The cardiovascular system; B2 Ventilation and gas exchange in the lungs; B3 Urinary system structure and function; B4 Cell transport mechanisms.
C Thermal physics, materials and fluids: C1 Thermal physics in domestic and industrial applications; C2 Materials in domestic and industrial applications; C3 Fluids in motion.

September
Start exam units 1 and 5
Coursework units: 2 and 11

Year
12

