

Teaching Plan

BTEC Applied Science Diploma

Year 1

Topic	Lessons	No. of Weeks
Unit 1	Periodicity and Properties of Elements Structure and Bonding Production and Uses of Substances in Relation to Properties Structure and Function of Cells and Tissues Cell Structure and Function Cell Specialisation Tissue Structure and Function Waves in Communication Working with Waves Use of Electromagnetic Waves in Communication	15.0
Unit 2	Undertake Titration and Colorimetry to determine the Concentration of Solutions Undertake Calorimetry to Study Cooling Curves Undertake Chromatographic Techniques to Identify Components in Mixtures Review Personal Development of Scientific Skills for Laboratory Work	15.0
Unit 5	Properties and Uses of Substances Relating Properties to Uses and Production of Substances Structures, Reactions and Properties of Commercially Important Organic Compounds Energy Changes in Industry Organs and Systems The Cardiovascular System Ventilation and Gas Exchange in the Lungs Urinary System Structure and Function Cell Transport Mechanisms Thermal Physics, Materials and Fluids Thermal Physics in Domestic and Industrial Applications Materials in Domestic and Industrial Applications Fluid in Motion	15.0

Unit 6	Undertake a Literature Search and Review to Produce an Investigative Project Proposal Produce a Plan for an Investigative Project Based on the Proposal Undertake the Project, Collecting, Analysing and Presenting the Results Review the Investigative Project Using Correct Scientific Principles	15.0
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Year 2

Topic	Lessons	No. of Weeks
Unit 3	Planning a Scientific Investigation Data Collection, Processing and Analysis/Interpretation Drawing Conclusions and Evaluation Enzymes in Action Diffusion of Molecules Plants and their Environment Energy Content of Fuels Electrical Circuits	15.0
Unit 4	Understand the Importance of Health and Safety in Scientific Organisations Explore Manufacturing Techniques and Testing Methods for an Organic Liquid Explore Manufacturing Techniques and Testing Methods for an Organic Solid Understand how Scientific Information may be Stored and Communicated in a Workplace Laboratory	15.0
Unit 12 Disease and Infection	Investigate Different Types of Diseases and Infections that can Affect Humans Examine the Transmission of Infectious Diseases and how this can be Prevented Understand how Infectious Diseases can be Treated and Managed Understand how the Human Body Responds to Diseases and Infections	15.0
Unit 23	Understand how to Gather Forensic Evidence, the Integrity to Forensic Investigation and the Importance of Health and Safety Investigate a Simulated Crime Scene Using Forensic Procedures	15.0

Forensic Evidence, Collection and Analysis	Conduct Scientific Analysis of Physical, Biological and Chemical Evidence Be able to Justify Methods, Interpret Findings and Report on Conclusions of Forensic Techniques and Analysis	
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