



BTEC Applied Science- Curriculum Overview

Year 12


Half Term:	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics:	Unit 1 Principles and Applications of Science Structure and function of cells and tissues Waves and communication	Unit 1 Principles and Applications of Science Waves and communication Periodicity and properties of elements	Unit 3 Science Investigation Skills Enzymes in action Diffusion of molecules Electrical circuits	Unit 3 Science Investigation Skills Plants and their environment Energy content of fuels	Unit 3 Science Investigation Skills	Unit 2 Science Investigation Skills
Assessment & End Points:	Exampro questions throughout the lessons Skills based assessments for practical's and application of knowledge to exam style questions. EOT (assessments 30 minutes)	Exampro questions throughout the lessons Skills based assessments for practical's and application of knowledge to exam style questions. EOT (assessments 30 minutes)	Unit 1 External exam Unit 3- Exampro questions throughout the lessons Skills based assessments for practical's and application of knowledge to exam style questions. EOT (assessments 30 minutes)	Exampro questions throughout the lessons Skills based assessments for practical's and application of knowledge to exam style questions. EOT (assessments 30 minutes)	External examination of Unit 3.	Skills based assessments for practical's



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Year 13

Half Term:	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics:	Unit 2 – Practical Scientific Procedures and applications	Unit 2 – Practical Scientific Procedures and applications	Unit 2 – Practical Scientific Procedures and applications Unit 8 – Physiology of human body systems A1 Structure of the musculoskeletal system A2 Function of musculoskeletal system A3 Disorders of the musculoskeletal system	Unit 8 – Physiology of human body systems B1 Structure of the lymphatic system B2 Function of the lymphatic system B3 Health matters and treatments related to the lymphatic system	Unit 8 – Physiology of human body systems C1 Structure of the digestive system C2 Function of the digestive system C3 Health matters and treatments related to the digestive system	
Assessment & End Points:	Assignment completion A. Undertake titration and colorimetry to determine concentration of solutions B. Undertake Calorimetry to study cooling curves Learners will ensure that their assignment is complete and then work on their skills diaries/logbooks, seeking feedback from you and comment from their peers.	Assignment completion C. Undertake chromatographic techniques to identify components of mixtures. Learners will ensure that their assignment is complete and then work on their skills diaries/logbooks, seeking feedback from you and comment from their peers.	Assignment completion D. Review personal developments of scientific skills for laboratory work. Assignment completion A. Understand the impact of disorders of the musculoskeletal systems and their associated corrective treatments Learners would use information gained from research, visits, dissections/videos, models and simulations to produce an illustrated report explaining and analysing the structure and function of the musculoskeletal system. An evaluation of a related disorder/dysfunction of the system and associated treatments must be included.	Assignment completion B. Understand the impact of disorder on the physiology of the lymphatic system and the associated corrective treatments. Research work using the internet and TV documentaries to help learners in creating a presentation that describes and explains the structure and function of the lymphatic system in promoting a healthy body. An evaluative case study of the effect of a disorder/dysfunction of the system and possible treatments must be included.	Assignment completion C. Explore the physiology of the digestive system and the use of corrective treatments for dietary related diseases. A lab book/record of investigations modelling the functioning of the various parts of the digestive system. Photographs and information from the investigations will be used to create an information leaflet that explains the role and location of organs and evaluates dietary disorder in the system and possible treatments. Observation records of practical work undertaken to assess the nutrient content of food will be required. Evidence and conclusions from the investigations will be incorporated into the information leaflet.	



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