Subject Area: Science – KS5

'The science curriculum at Bideford College is designed to ensure that pupils develop a life-long interest in science to enable them to gain an ever-deepening understanding of the world around them'

Curriculum Overviews	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 12	**Applied Science** – Titrations and calibrating laboratory equipment **Biology** – Biological molecules and cell structure **Chemistry** – Alkanes, alkenes, atoms, ions and compounds **Physics** – Physics skills, forces in equilibrium, matter and radiation **Psychology** – Social influence and attachment	**Applied Science** – Titrations and calorimetry **Biology** – Nucleic acids, transport across cell membranes and cell recognition and the immune system **Chemistry** – Alcohols, haloalcohols, acids, redox, electrons and bonding **Physics** – Newtons laws, quarks, leptons and quark phenomena **Psychology** – Approaches in psychology and memory	**Applied Science** – Review of scientific skills and chromatographic techniques **Biology** – Exchange, DNA, genes and protein synthesis **Chemistry** – Organic synthesis, spectroscopy, shapes of molecules **Physics** – Force, momentum, work, energy, power and materials **Psychology** - Approaches in psychology and research methods	**Applied Science** – Periodicity and properties of elements and structure and function of cells and tissues **Biology** – Genetic diversity and biodiversity **Chemistry** – Periodicity, reactivity trends and enthalpy **Physics** – Electric current and waves **Psychology** - Psychopathology and research methods	**Applied Science** – Waves in communication and structure and function of cells and tissues **Biology** – Mass transport and revision **Chemistry** – Reaction rates, equilibrium and revision **Physics** – Optics and DC circuits **Psychology** - Psychopathology and revision	**Applied Science** – Physiology of the digestive system and electrical circuits **Biology** – Populations, evolution and ecosystems **Chemistry** – Rates of reaction, equilibrium, aromatic chemistry, carbonyls and carboxylic acids **Physics** – Radioactivity and circular motion **Psychology** - Approaches in psychology
Year 13	**Applied Science** – physiology of the digestive system and disorders of the musculoskeletal system **Biology** – Photosynthesis and inherited change **Chemistry** – Carbonyls, carboxylic acids and rates of reactions **Physics** – SHM, gravitational fields and thermal physics **Psychology** - Biopsychology, aggression, approaches in psychology, issues and debates	**Applied Science** – disorders on the physiology of the lymphatic system and physiology of the digestive system **Biology** – Energy, ecosystems, populations and evolution **Chemistry** – Acids, bases, pH, Buffers, neutralisation and aromatic chemistry **Physics** – Electric fields, capacitors and radioactivity **Psychology** - Biopsychology, aggression, approaches in psychology, issues, debates and schizophrenia	**Applied Science** – Energy content of fuels, plants and the environment **Biology** – Response to stimuli, nerves, muscles and populations in ecosystems **Chemistry** – Enthalpy, entropy and organic synthesis **Physics** – Magnetic fields and nuclear energy **Psychology** - Biopsychology, schizophrenia and research methods	**Applied Science** – Diffusion and electrical circuits **Biology** – Homeostasis, gene expression and recombinant DNA **Chemistry** – Redox, electrode potentials, chromatography and spectroscopy **Physics** – Electromagnetic induction and engineering physics **Psychology** - Approaches in psychology and research methods	**Applied Science** – Revision **Biology** – Revision **Chemistry** – Transition elements and revision **Physics** – Engineering physics and revision **Psychology** -Revision	**Applied Science** – Revision **Biology** – Revision **Chemistry** – Revision **Physics** – Revision **Psychology** - Revision

Texts, Exam Boards and Useful Websites:

Key Stage 5 (Year 12 – 13)
Applied Science - Exam Board – Pearson https://qualifications.pearson.com/en/qualifications/btec-nationals/applied-science-2016.coursematerials.html#filterQuery=category:Pearson-UK:Category%2FSpecification-and-sample-assessments&filterQuery=category:Pearson-UK:Document-Type%2FSpecification Biology - Exam Board – AQA https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402 Chemistry - Exam Board – OCR https://www.ocr.org.uk/Images/171720-specification-accredited-a-level-gce-chemistry-a-h432.pdf Physics - Exam Board – AQA https://www.aqa.org.uk/subjects/science/as-and-a-level/physics-7407-7408 Psychology - Exam Board – AQA https://www.aqa.org.uk/subjects/psychology/as-and-a-level/psychology-7181-7182