



Overview of Bridging Course

Department: Applied Science	
What is the focus of this bridging course? <ul style="list-style-type: none">• Students will be introduced to some of the key concepts studied in Year 12 Applied Science, spanning Biology, Chemistry and Physics.• Students will be introduced to some of the key skills needed for an Applied Science vocational course.• Students will begin to form links between different areas of the course.• Students will begin to apply their knowledge to tasks/questions related to the examination style to assess students' knowledge and understanding of Science.	
w/b 27 April	Periodicity and Properties of Elements (Chemistry) <ul style="list-style-type: none">• Students will learn about what the course entails, and the different aspects of the Applied Science course.• Students will recap and build upon their knowledge of atomic structure and bonding which was covered at GCSE, such as the structure of the atom, ionic bonding, and covalent bonding.• Students will then look at the electronic structure of atoms, including electronic orbitals, the Aufbau principle and Bohr theory. Students will also learn about ionic bonding, in terms of ion formation, and covalent bonding, in terms of bond lengths and bond strengths.• Students will then apply their knowledge to specific questions designed to strengthen their depth of knowledge and ultimately answer examination style questions.
w/b 4 May	Cell Structure and Function (Biology) <ul style="list-style-type: none">• Students will recap and build upon their knowledge of cell biology which was covered at GCSE, such as cell structure and the different types of cell specialisation.• Students will then look at the ultrastructure and function of organelles in prokaryote cells, plant cells and animal cells. Students will also look at cell specialisation, in terms of structure and function, for sperm cells, egg cells, root hair cells, white blood cells and red blood cells.• Students will then apply their knowledge to specific questions designed to strengthen their depth of knowledge and ultimately answer examination style questions.
w/b 11 May	Waves (Physics) <ul style="list-style-type: none">• Students will recap and build upon their knowledge of waves which was covered at GCSE, such as the properties of waves and the difference between transverse and longitudinal waves.• Students will then look at the concepts of displacement, coherence, path difference, phase difference,• superposition when waves move through diffraction gratings.• Students will then apply their knowledge to specific questions designed to strengthen their depth of knowledge and ultimately answer examination style questions.
w/b 18 May	Electromagnetic Spectrum (Physics) <ul style="list-style-type: none">• Students will recap and build upon their knowledge of the electromagnetic spectrum which was covered at GCSE, such as the different parts of the spectrum linked to their wavelength, frequency and uses.• Students will then look at how there are different applications of electromagnetic waves in communication such as satellite communication, mobile phones, Bluetooth, infra-red and Wi-Fi.• Students will then apply their knowledge to specific questions designed to strengthen their depth of knowledge and ultimately answer examination style questions.
<i>Work that will students will receive feedback on:</i>	
Students will submit their completed examination questions from all weeks of the bridging course, and these will be marked in detail.	