

GETTING READY FOR PACK

CAMTEC Applied Science

We are delighted you have chosen to study Applied Science at Haywards Heath College

WHAT YOU WILL STUDY	
First Year	<p>Unit 1 Science Fundamentals – Covers elements of Biology, Chemistry, and Physics, within Biology DNA replication, Cellular Biology. Chemistry- Functional groups (organic chemistry), Types of reactions, and rates of reactions. Physics- Types of materials, Young Modulus, Electrical circuits, and more....</p> <p>Unit 2 Lab Techniques- More chemistry but practical side of science. Titrations and calculations. Moles & use of Avogadro's constant. The Importance of Calibration and how to calibrate equipment plus more...</p>
Second Year	<p>Coursework Units</p> <p>Unit 6 Control of Hazards in the Lab – Hazard and risk identification followed by preventative measures. Legislation that supports the requirement to provide adequate lab safety and working environments. You get to design your lab to show that you have considered the affiliated risks control measures to fit the profile of the lab which you have designed</p> <p>Unit 18 Microbiology- The benefits of microbes in food production. How is antimicrobial resistance an issue and how can it be prevented? Identification of the different classes of microbes and how Genetically modified organisms are tied in with microbes.</p> <p>Unit 21 Product testing techniques- What kind of testing must different products undergo to ensure it is safe for customer usage and satisfaction. Unit has a range of practical's that link in with product analysis.</p>

WHAT YOU NEED	
Kit List	Lab coats will be provided
Course Supplement	

Equipment	Scientific Calculator
Essential Textbooks	Applied Science CAMTEC Hodder Scientific

ENRICHMENT	
Trips	University of Brighton School of Applied Sciences, Science Museum and a trip to a Wine estate to see how fermentation is done in industry. Trip to Chichester for healthcare nursing and midwifery.
Guest Speakers	University of Brighton Lecturers from the school of pharmacy and biomolecular sciences
Events	

RECOMMENDED READING/WATCH LIST	
Contextual Info	
	Applied Science Textbook CAMTEC Hodder Scientific
	Balancing equations and complete Getting ready for pack

SUMMER WORKING TASK INFORMATION	
Completion Date: First Lesson Week Commencing 9/9/24	
<p>This pack will help you make the best possible start to studying this subject. The tasks in this pack should take you about 4-6 hours to complete.</p> <p>The tasks are designed to get a bit more difficult as you work through them as they are preparing you for studying at a higher level and to become an effective independent learner. You should try to get as far as you can working on your own but if you do need help, please email us at info@haywardsheath.ac.uk telling us which Getting Ready For pack you are working on and what help you need. Help is available throughout the summer holidays.</p>	

SUMMER WORKING TASK	
Skills Focus	Maths skills: Converting to SI units Calculating sizes of atoms Balancing chemical symbol equations Working out formula of ionic compounds GCSE science knowledge, including: Periodic table Atomic structure Structure types Chemical symbol equations

Task 1	<p>Complete Workbook below</p> <p>Click on this link https://www.dropbox.com/scl/fi/891wddwhjo5khlujqzyna/GRFP-Applied-Science-workbook-2023.docx?rlkey=qps5wn9v0pg7sx9xr8xi48cus&dl=0 Or this one https://docs.google.com/document/d/1AMKYdwT1qtuGM-qGWHGS1E--wWfXvO1u/edit?usp=drive_link&oid=102566536995964408814&rtpof=true&sd=true and download the Applied Science L3 summer workbook. You will need to hand in your completed workbook to your teacher at the start of the term. If you have any problems, please send an email to info@haywardsheath.ac.uk or to me at Chinkitt@haywardsheath.ac.uk</p>
Task 2	<p>Worksheet 1: The Periodic Table</p> <p>An understanding of the Periodic Table is important for any science course. This worksheet reviews what you should have learnt in GCSE Science. If you need help completing this activity, GCSE bitesize revision is helpful: https://www.bbc.com/bitesize/topics/zxnftv4</p>
Task 3	<p>Worksheet 2 and 3: Atoms, ions and electron arrangement</p> <p>This activity reviews atomic structure and ions. You will need a scientific calculator for this activity – this is an essential requirement for this course. For help in converting pm (picometres) to metres, click on this link https://physics.nist.gov/cuu/Units/prefixes.html</p>
Task 4	<p>Worksheet 4: Structure types</p> <p>You should have covered the different types of substances – metallic, ionic, simple covalent, giant covalent and monatomic in GCSE Science. These are some bbc bitesize notes to help you answer the questions: https://www.bbc.com/bitesize/guides/zjfkw6f/revision/1</p>
Task 5	<p>Worksheet 5: Writing chemical formula</p> <p>Understanding how to write chemical formula is vital for success in chemistry. You may find this video helpful: https://www.youtube.com/watch?v=URc75hoKGLY</p>
Task 6	<p>Worksheet 6: Balancing equations</p> <p>You should have learned how to write balanced equations in your GCSE course. Attempt as many as you can. You may find this video helpful: https://www.youtube.com/watch?v=2Juem0lcifE</p>