



## DRAYTON MANOR HIGH SCHOOL

### Success at Sixth Form – Subject Specific Tips

<b>Subject</b>	<b>Applied Science (BTEC Level 3)</b>	
<b>Class and homework expectations</b>		
<p>Students should bring the following items to each lesson:</p> <ul style="list-style-type: none"> <li>• equipment/stationery (scientific calculator, black/blue pen, green pen, highlighters, ruler, pencil, paper, textbook)</li> <li>• Any coursework notes, USB and have access to school email</li> <li>• Daily folder containing -             <ul style="list-style-type: none"> <li>– periodic table</li> <li>– personal learning checklists</li> <li>– all the class work, homework and notes for the units that they are currently working on with each teacher</li> </ul> </li> </ul>		
<b>Scheme of Work</b>		
<b>Year 12</b>	<b>Year 13</b>	
Unit 1 – Principles and Applications of Science Unit 2 – Practical Scientific Procedures and Techniques	Unit 3 – Science Investigation Skills Optional Unit– To be chosen from a selection of 9 topics as a year group	
<b>Assessment Objectives</b>		
<b>AO1 – Knowledge &amp; Understanding</b>  Candidates should be able to: <ul style="list-style-type: none"> <li>• Demonstrate knowledge of scientific facts, terms, definitions and scientific formulae</li> </ul> (Command words: give, label, name, state)	<b>AO2 – Application of knowledge &amp; Understanding</b>  Candidates should be able to: <ul style="list-style-type: none"> <li>• Demonstrate understanding of scientific concepts, procedures, processes and techniques and their application</li> </ul> (Command words: calculate, compare, discuss, draw, explain, state, write)	<b>AO3 – How Science Works</b>  Candidates should be able to: <ul style="list-style-type: none"> <li>• Analyse, interpret and evaluate scientific information to make judgements and reach conclusions</li> </ul> (Command words: calculate, comment, compare, complete, describe, discuss, explain, state)

## Assessment

### Year 12

#### **Unit 1- Principles and Applications of Science: External examination set by Pearson (25% of overall grade)**

This paper assesses the content learned from all three sciences (Biology, Chemistry and Physics) in three 40-minute exam papers. An overall grade of Pass, Merit or Distinction is awarded based on the overall mark out of 90.

- Paper 1 – Biology- 30 marks
- Paper 2 – Chemistry -30 marks
- Paper 3- Physics- 30 marks

#### **Unit 2- Practical Scientific Procedures and Techniques: Internal coursework assessment (25% of overall grade)**

This unit comprises of four internally assessed pieces of coursework which is assessed by the subject teacher. An overall grade of Pass, Merit or Distinction is awarded on successful completion of all four pieces.

Assignment A: Titrations and colorimetry

Assignment B: Cooling curves

Assignment C: Chromatography

Assignment D: Skills journal

### Year 13

#### **Unit 3-Science Investigation Skills (practical performed in school followed by an examination from Pearson) (33% of overall grade)**

This assessment is based on practical planning and analysis skills obtained by the students from their coursework. They will perform a scientific practical based on a scenario given by the exam board. They will then use their results to complete an exam paper performed under strict supervision which will be assessed by the exam board.

#### **Optional Unit (17% of overall grade)**

This unit will be decided from a selection of nine different topics where students will specialise in a particular area of science and produce reports on various assignment criteria for that topic.

The assignments will be assessed internally by the subject teacher, and an overall grade of Pass, Merit or Distinction will be awarded based on the level of completion.

Any assignment/assessment that does not meet the Pass criteria will receive an Unclassified U grade.

In addition to the summative assessments listed above, students will take end of topic and progress tests at regular intervals.

### How to do well in the subject at BTEC Level 3?

- Attend all lessons and catch-up any work missed
- Keep folder organised and up to date
- Respond to the feedback provided by your teacher (feedback tasks and tests)
- Spend a minimum of 5 hours per week studying the three sciences. The time should be spent on:
  - Completing homework (on time)
  - Learning all key terms and definitions (use flashcards)
  - Practising key mathematical skills (e.g. the amount of substance section) regularly
  - Practising past examination questions
  - Using Seneca learning, textbooks and websites to support your studies
  - Keeping Personal Learning Checklists up to date and using them to inform revision

### Support available

- Analysis of the January mock examinations will identify areas that require improvement – teachers will provide specific support materials/plan lessons to support the development of these areas
- Exam questions and model answers will be provided regularly
- Students should see their teacher for help if needed

### How parents can help support

- Please help your son or daughter to organise their folder and keep it up to date
- Check that they are doing homework and studying independently as described above
- Ensure that students meet the strict deadlines when submitting coursework
- Discuss with them any letters that you receive about their progress

### Helpful websites or resources

[www.pearson.co.uk](http://www.pearson.co.uk)

[www.chemguide.co.uk](http://www.chemguide.co.uk)

[www.a-levelchemistry.co.uk](http://www.a-levelchemistry.co.uk)

<https://www.senecalearning.com/>

Text books will be supplied by the school