

## **BTEC Applied Science National Extended Certificate**

Exam Board: Pearson

### **Year 12**

Topics studied:

#### Unit 1 – Principles and Applications of Science:

Chemistry A Periodicity and properties of elements

Biology B Cell Structure and function

Physics C Waves in Communication

#### Unit 2 Practical Scientific Procedures and Techniques

A – Undertake titration and colorimetry to determine concentration of solutions

B – Undertake calorimetry to study cooling curves

C – Undertake chromatographic techniques to identify components in mixtures

D – Review personal development of scientific skills for laboratory work

Assessment Structure:

Unit 1 – External paper split into 3 sections, each worth 30 marks

Section A – Chemistry - 40 minute paper

Section B – Biology – 40 minute paper

Section C – Physics – 40 minute paper

Questions:

A range of question types, including multiple choice, calculations, short answer and open response.

Unit 2 – Internally assessed report for each topic in unit 2 involving practical experiments and classical scientific write up methods.

Subject specific websites to support revision and independent learning:

Pearsons BTEC Applied Science

Recommended subject guides:

We strongly recommend that all students have their own copy of the accompanying text for this course. This is BTEC National Applied Science Student Book 1 (BTEC Nationals Applied Science 2016) which is widely available new or second hand. It contains essential reading materials as well as assigned tasks which are supported in the notes.

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Parental/ Carer Support:

- As previously mentioned we strongly recommend purchasing the accompanying text listed above.
- We welcome you to support home learning, as well as our students, by reading their workbooks to reinforce the high standards that we expect during the BTEC course.
- Please encourage the development of good time management by asking students about their deadlines. This course has a detailed structure of handing in work for set deadlines so your interest and reminders would be appreciated.
- If you are able, you can get more involved in checking the knowledge of the students by questioning them on their understanding of the topics they have been taught, ensuring answers contain a good use of scientific keywords.
- Encourage students to make regular use of the online resources that can be found on the Pearson website, as well as Show my homework to support themselves in their revision