



BTEC Applied Science Introduction



If you are considering studying Applied Science next year then these are activities that you should seriously consider completing over the next few months to prepare yourself.

The activities are divided into:

Essential - suggested as good preparation for the course.

Recommended - suggested to support the essential activities for the course

Optional - suggested to support wider learning around the subject; you are expected to do this independently.

A Level Specification

Read through the specification by Googling 'Pearson BTEC level 3 National Extended Certificate in Applied Science'. This will help you to gain an understanding of the expectations of the course.



Digital Resources

Access the digital resources for this course by accessing the Applied Science Hub Site. Click on "KS5" and have a look at the lessons and resources available to you there.

Course content

Unit 1 – Exam where you will be tested on Biology, Chemistry and Physics content- 3 exams (40 minute each)

Unit 2 – Practical based coursework (sections A, B, C, and D) you will be awarded pass, merit or distinction.

Unit 3 – Practical examination–3 hour practical and 1.5 hour exam.

Unit 9 – Biology coursework (sections A, B, and C) you will be awarded pass, merit or distinction.

You MUST achieve at least a PASS for BOTH the exam units in order to achieve an overall grade for the course.

Task

Watch the videos shown in the recommended watch section for titration, colorimetry, Stearic acid cooling curves and TLC and paper chromatography (plus any others you can find) and completed the following :-

- Write up a report on EACH of the techniques – describing what is involved with each one and what they are used for. Include the following:-
 - Describe what the practical can be used for and the purpose of the technique (practical) -
 - METHOD
 - EQUIPMENT LIST
 - RISK ASSESSMENT
 - Independent, dependent and control variables.
 - Describe what good CONCLUSION should include.
 - Describe what a good EVALUATION should include.
- Completing the above will help you answer:
 - 12 mark exam question for unit 3.
 - 8 mark evaluation

Recommendations to watch

Watch the following videos to help you complete the TASK set and make notes on the important facts covered in the content.

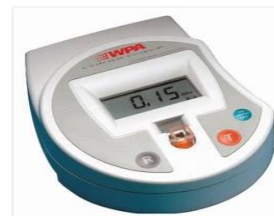
Titration Practical



<https://www.bing.com/videos/search?q=titration&&view=detail&mid=500A583C087B31A64CB9500A583C087B31A64CB9&&FORM=VRDGAR&ru=%2Fvideos%2Fsearch%3Fq%3Dtitration%26FORM%3DHDRSC3>

Colorimetry practical

<https://www.bing.com/videos/search?q=Colorimetry+copper+sulphate&&view=detail&mid=F359E27C73994D777F99F359E27C73994D777F99&&FORM=VRDGAR&ru=%2Fvideos%2Fsearch%3Fq%3DColorimetry%2Bcopper%2Bsulphate%26go%3DSearch%26qs%3Dds%26form%3DQBVDMMH>

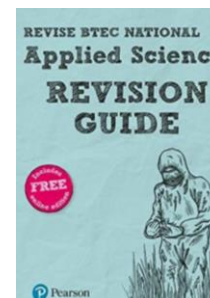


Stearic acid cooling curve practical



<https://www.bing.com/videos/search?q=stearic+acid+cooling+curve&&view=detail&mid=A82836280AFBB6369BC7A82836280AFBB6369BC7&&FORM=VRDGAR&ru=%2Fvideos%2Fsearch%3Fq%3Dstearic%2520acid%2520cooling%2520curve%26qs%3DAS%26form%3DQBVR%26sp%3D2%26pq%3Dstearic%2520acid%2520cool%26sk%3DAS1%26sc%3D8-17%26cvid%3D683F87BCED814053B76EB7350452DFF0>

Further reading and preparation



BTEC Revision guide – please purchase this revision guide and start reading through the UNIT 1 Biology, Chemistry and Physics content ready for the exam.

BTEC LEVEL 3 APPLIED SCIENCE – UNIT 1 REVISION

<https://quizlet.com/gb/394657643/btec-applied-science-all-flash-cards/>

VIDEO PLAY FOR UNIT 1 BIOLOGY CHEMISTRY AND PHYSICS

<https://www.youtube.com/watch?v=FOwDgpKTqY&index=4&list=PLsz05IRkJmFqZiQfTfRhgzCkKWzoemArQ>

Work can be typed up or handwritten.

TIPS for the write up

- Scientific methods are written in third person.
- A good hypothesis links the independent and dependent variables together.
- Independent variable is what YOU change in the investigation.
- Dependent variable is what you MEASURE in the investigation.
- Control variable is what you keep the SAME.
- A conclusion includes what you found out in the experiment and an explanation.
- Evaluation is how you can improve an investigation. There are further tips in the REVISION GUIDE.

