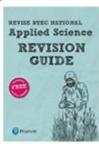


Forensic and Criminal Investigation

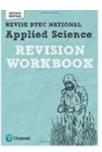
Welcome to Forensic & Criminal Investigation. In order to give you the best possible start to your vocational study at Level 3, here are a few resources and tasks to help you build your knowledge and confidence ready for your next steps in the study of science.

Recommended Reading:











ISBN-13: 978-1292134093 **ISBN-13:** 978-1292150048

ISBN-13: 978-1292134130 **ISBN-13:** 978-1292258171 **ISBN-13:** 978-0273738404

Tasks to complete:

Task 1 - Unit 1 Principles & Applications of Science I

Topic areas covered:

- Cell Structure, Function and Specialisation
- Tissue Structure and Function
- Structure and Bonding
- Properties of Substances
- Working with Waves
- Waves in Communication

This unit is an exam unit and builds on the knowledge and skills you developed in GCSE Science.

You can use Seneca, an online learning platform, in order to become familiar with the topics covered in this unit. In order to access this resource, you need to do the following:

1. Click the link below:.

https://senecalearning.com/en-GB/

- 2. Sign up to Seneca and create an account.
- 3. Once you have created an account, you need to join the 'Lvl 3 Applied Science Unit 1 Intro' class. To do this, go to 'classes & assignments --> join class' and enter in the following class code: vg9mb7yv6x
- 4. Once you have joined the class, you can access the content for this unit.

Task 2 - Unit 2 Practical scientific Procedures and Techniques

Topic areas covered:

- Volumetric analysis techniques e.g. preparing standard solutions, undertaking an acid/base titration;
- Amount of substance calculations e.g. converting mass to number of moles and determining concentration.

One of the first skills you work on developing in Year 1 is volumetric analysis using titration. It is important you understand the principles behind this laboratory technique.

http://www.rsc.org/learn-chemistry/resources/ screen-experiment/titration/experiment/2 (use in Chrome or Safari)

There are 4 levels to complete - approx 30 mins

- pH curves, equivalence points and indicator selection;
- dilution calculations and units.
- redox titrations (KMnO4/Fe2+); determining ionic equations.

each.

At the end of each level there is a review section for students to reflect on their progress and draw conclusions. This is another important skill as you progress through your study with us.

Task 3 -

Unit 4- Forensic Investigation procedures in Practice

Have you watched any tv shows which dramatise crime scene analysis? (CSI/Dexter etc) If not, try and find one.

Make a list of what they do wrong at the crime scene. Do you think the evidence they collect would be accepted at court? Why not? Make a plan for how YOU would have approached the scene, and what you would have done differently.

This unit covers what most people think of when they think 'Forensics' and 'CSI'. It covers crime scene and evidence analysis techniques.

Watch the video below which is a very brief introduction to crime scene analysis https://www.youtube.com/watch?v=JgzdhUAJr BA



Task 4 - Physiology of the human body

In order to prepare yourself for these units, please complete the following tasks:

Musculoskeletal System:

<u>Human skeleton to label and colour</u>
Video to help (using subtitles might help)

Osteoporosis is a medical disorder of the musculoskeletal system.

Research the condition and its symptoms and explain how and why these occur? How is it diagnosed?

What treatments are available and how these help the disorder?

This will support assignment work in this unit - approx a page and a half A4 font size 12 needed.

Unit 8 - Physiology of Human Body Systems Unit 14 - Forensic Anthropology & Archaeology

Most students really enjoy these units.

In Unit 8 you will learn about the systems of the body and how they are regulated and develop on your knowledge in Unit 14 to look at examination and identification of remains.

If you have any questions about this course please email a.mccrerie@burnley.ac.uk