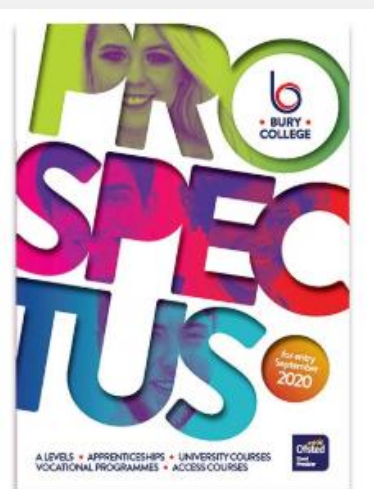


# Bury College

## Pre – enrolment information

### BTEC Level 3 Forensics & Criminal Investigation Chemistry



# Preparation for college

**Pens**

**Pencils**

**Eraser and Sharpener**

**Ruler**

**Calculator**

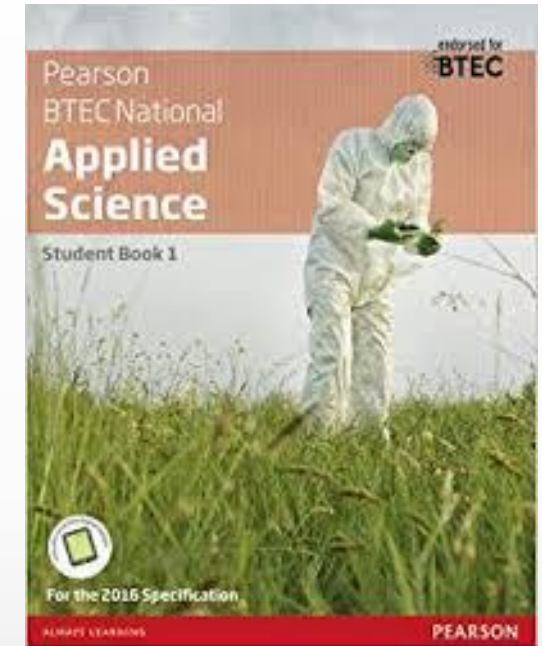
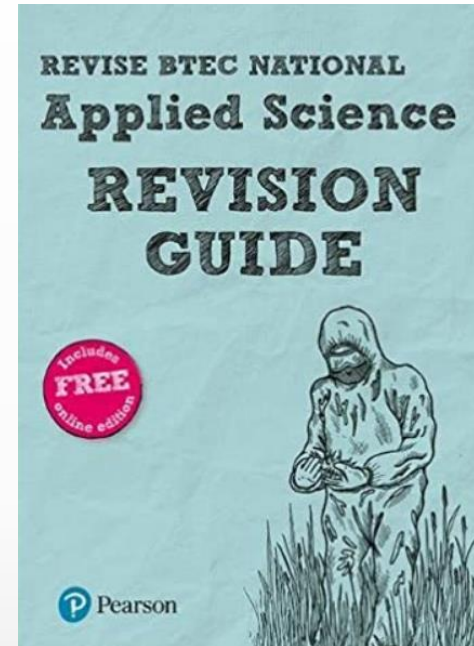
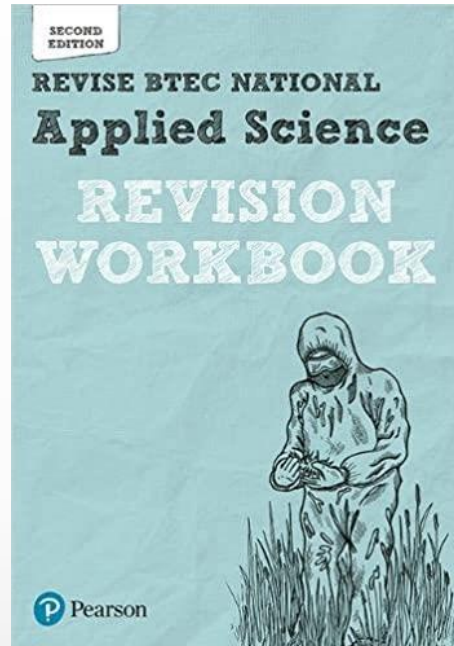
**Notepad**

**Other essential resources will  
be provided**



# Useful resources

- **Useful textbooks**



<https://qualifications.pearson.com/en/qualifications/btec-nationals/applied-science-2016.html>

- **Useful websites**

<http://www.chemguide.co.uk/>

<https://www.bbc.co.uk/bitesize>

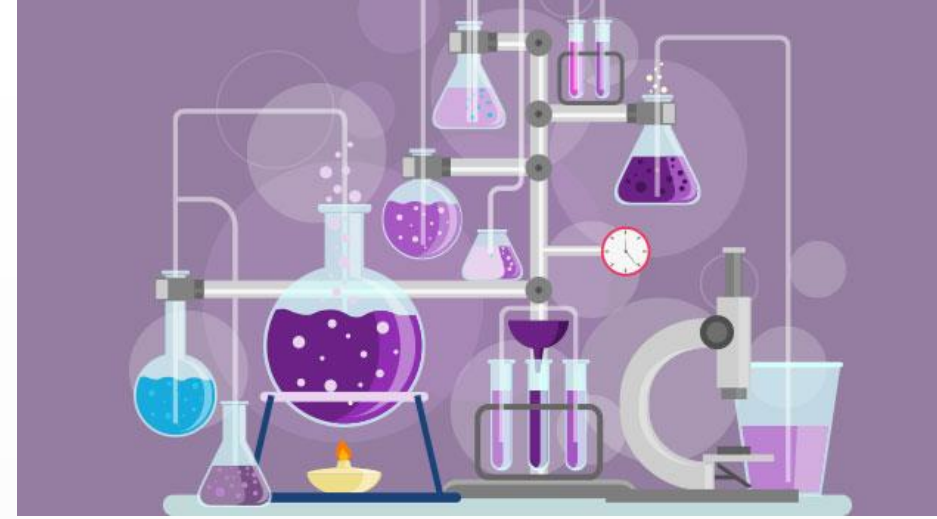
# Why study chemistry?

Chemistry is everything and is everywhere, it allows us to explore and study the world we live in. It's in the food you eat, clothes you wear, water you drink, medicines, air, cleaners.

You name it!

Studying Chemistry in Applied Science helps you to develop research, problem solving and analytical skills. It allows you to challenge ideas through logic and step-by-step reasoning. By studying Applied Science (chemistry) at Bury College you will develop teamwork and communication skills in a laboratory setting.

This means you should be well prepared for every single lesson!



Career paths you can go into include:

Zoology  
Engineering,  
Biomedicine  
Pharmacology  
Allied Health  
professional

Here are some things you should ideally already know and what you will learn.

I already know....

I will learn....

Simple model of the atom

Atoms are made up sub atomic particles

Properties of metals and non-metals

Explain differences between metals and non –metals in terms of atomic structure and bonding

Difference between atoms, elements & compounds

Explain atoms are bonded to each other elements and compounds

How to represent chemical reactions using formulae and equations

Carry out reacting masses from balance symbol equations

How to use chemical symbols and formulae to represent elements and compounds

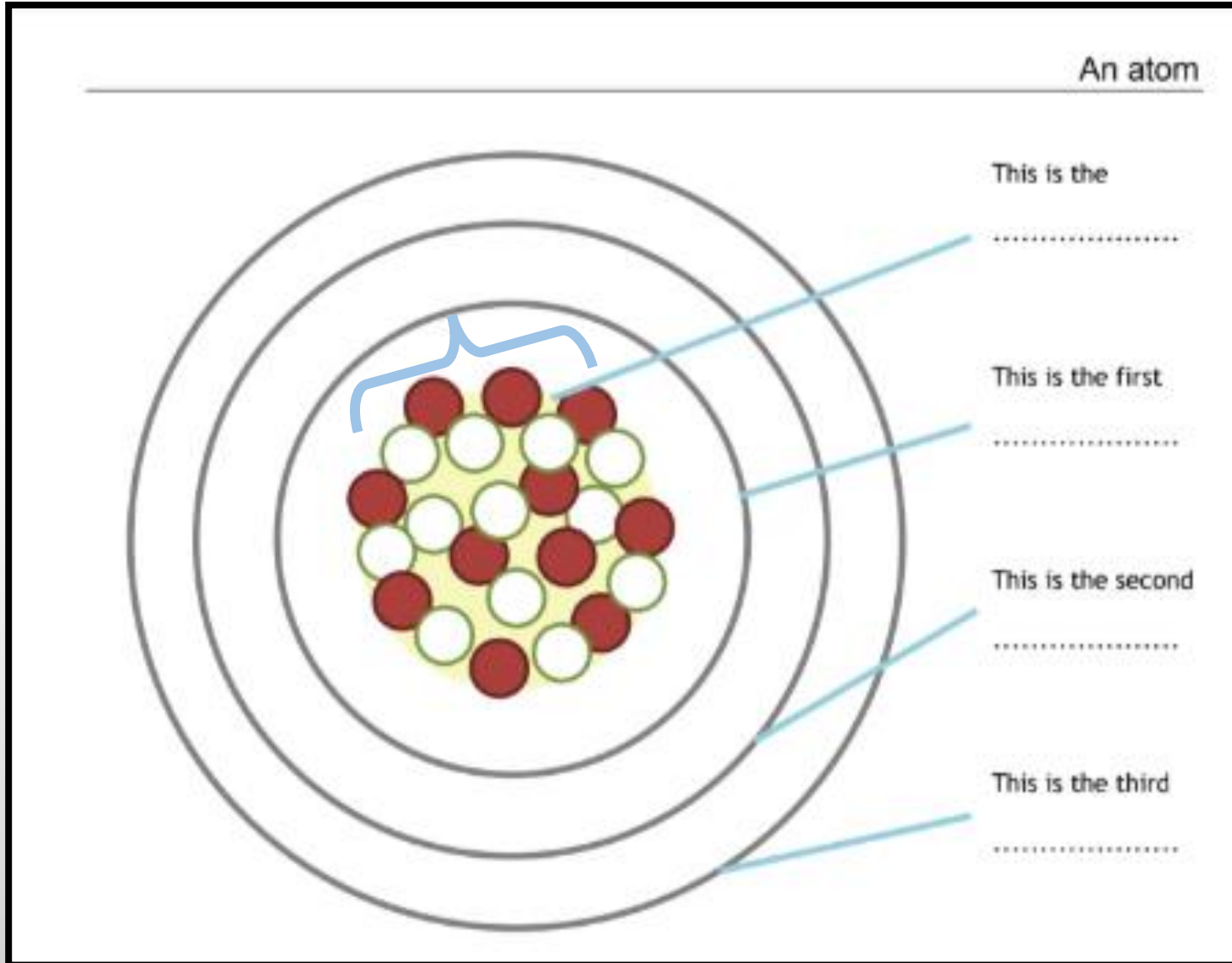
Knowing the structure of atoms and type of bonding involved

The conservation of mass in chemical reactions

Carry out mole calculations from balanced symbol equations

# Can you complete following?

## Part a



### Key

○ Neutron

● Proton

X Electron



# Can you find out the name of the element? (You will need a periodic table)

## Part b

### Key

 Neutron

 Proton

X Electron

1. How many protons are there in the nucleus? .....
2. Now how many neutrons are in the nucleus? .....
3. How many electrons would this element have? .....
4. How did you work this out? .....  
.....
5. What is the atomic number of this element? .....
6. How do you know this? .....
7. What is the mass number? How did you work this out? ....  
.....
8. Put the correct number of electrons in each shell.
9. What group does this element belong to? .....
10. What name is given to this group? .....
11. This element is .....