BTEC Level 1/2

First Awards in Principles of Science and Applications of Science (Level 2)

Course Description

This is a well-respected science qualification, seen as a more practical and work-related route than A Level science. Students on this course will develop self-reliance and effectiveness in researching a wide range of sources.

Course Content & Assessment Methods

Units 1-8 are compulsory. From the wide range of possible additional units, the ones we choose to study are below. The completion of four (1-4) units will enable you to achieve a Level 1/2 award in Principles of Science and the rest of the units (5-8) will lead to Level 1 /2 Award in Applications of Science.

It is important that science technicians and scientists are able to use and apply fundamental core concepts to work efficiently and effectively in science organisations, as well as other organisations that use science.

Qualification	Unit Number	Unit Title	Assessment
Award in Principles of Applied Science	1	Principles of Science	Internal
	2	Chemistry and our Earth	Internal
	3	Energy and our Universe	Internal
	4	Biology and our Environment	Internal
Award in Applications of Science	5	Applications of Chemical Substances	Internal
	6	Applications of Physical Science	Internal
	7	Health Applications of Life Science	Internal
	8	Scientific Skills	Internal

Potential Career Opportunities in Science

- Medicine
- Pharmacist
- Nursing
- Midwifery
- Biomedical Scientist
- Paramedic
- Radiographer
- Podiatry
- Teaching
- Psychologist
- Health Visitor
- Optometrist
- Dietitian
- Microbiologist
- Radiotherapist
- Conversationist
- Apprenticeship
- Engineer
- Laboratory Technicians
- Audiologist
- Agriculture
- Researcher
- Forensic Science

BMet

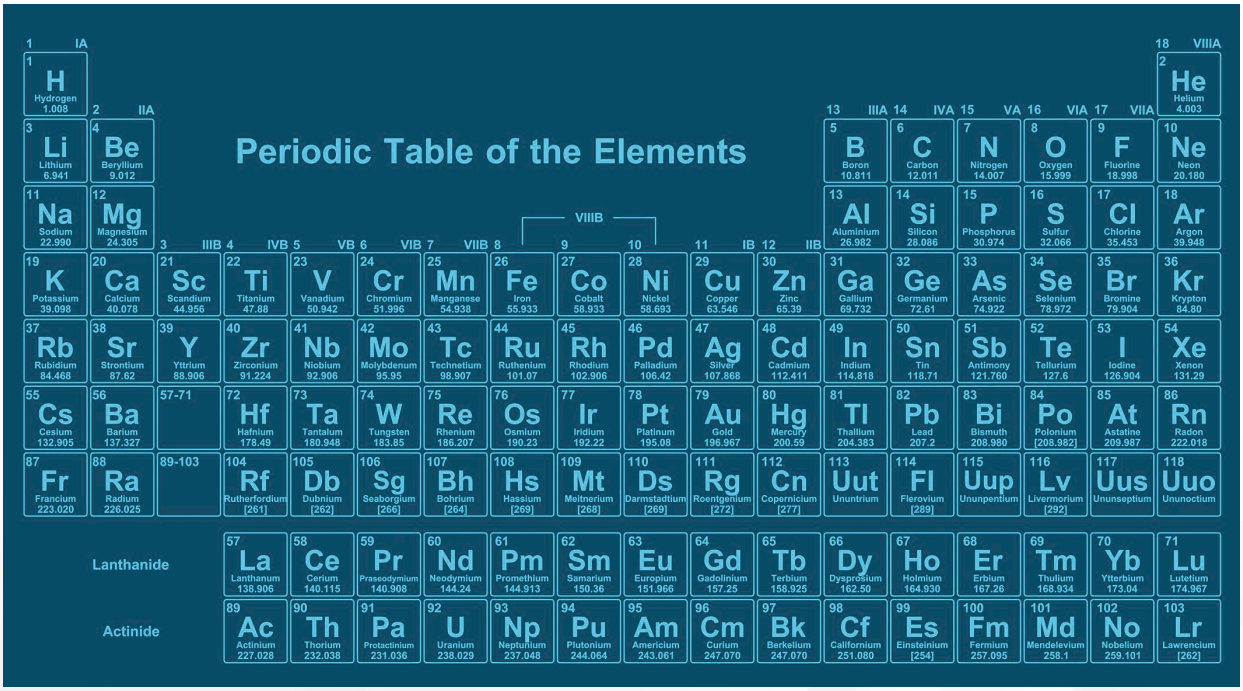
Chemistry

Course Description

This is a well-respected science qualification seen as a more practical and work-related route than A Level science. Students on this course will develop self-reliance and effectiveness in researching a wide range of sources.

Chemistry Activity

The modern periodic table is a chart that arranges the elements in a way that are useful to the chemist. The periodic table is divided into the groups (vertical columns) - with elements having some chemical and physical properties.



Group 1 of the periodic table has H, Li, Na, K , Rb , Cs and Fr - the group is called alkali metals. Group 17 consists of F, Cl, Br, I, At and Uus - the group is classified as halogens.

Watch the following video and then compare the properties of group 1 and 17.
Videos:

https://www.youtube.com/watch?v=IdS9roW7IzM

https://www.youtube.com/watch?v=dZGDUKQa_6g

https://www.youtube.com/watch?v=yW_C10cEzMk

BMet

Physics

Science employees working in organisations involving energy will need knowledge of the different forms of energy, energy stores, energy transformations and alternative energy sources. Physicists working for the National Grid will need knowledge of energy transfers, energy transfer measurement and energy efficiency. Scientists working in hospital scanning departments will need knowledge of the dangers and uses of X-rays and other features of the electromagnetic spectrum.

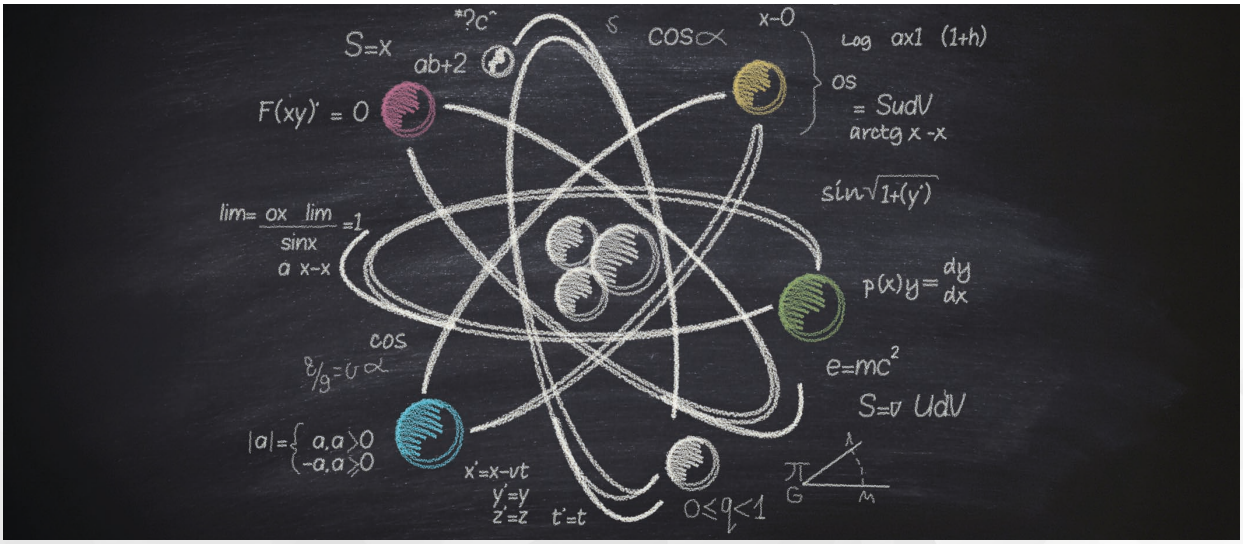
Physics Activity

Some of our energy demand is fulfilled by the nuclear energy. The nuclear energy is created by using two reactions - fission and fusion. Our energy demand is partly fulfilled by the nuclear fission. Nuclear fusion, on the other hand, is the main source of our energy source from the sun.

Watch the following video and then click the quiz to answer the questions

Video: https://www.bbc.co.uk/bitesize/guides/zx86y4j/video

Test : https://www.bbc.co.uk/bitesize/guides/zx86y4j/test



The aim of these units is to study core science concepts in biology, chemistry and physics. The assessments for these units focus on your understanding and application of these concepts.

A strong grasp of these concepts will enable you to use and apply this knowledge and understanding in vocational contexts, when studying units within this specification.