**BTEC – Applied Science – Extended Certificate**

So…..you've signed up to do the BTEC in Applied Science. Well done, it's a great course that will be fun and interesting to follow and give you a very useful qualification at the end.

We will study different scientific areas and you will produce coursework and sit exams.

***After teaching the course for a while I think some of the key qualities you need are:***

- a real interest in science! Working out why things happen the way they do and being able to investigate them.

- the ability to produce a piece of work. There are several pieces of coursework to complete so you need to be able to carry out a piece of work collect information/results and discuss your work. AND……..present it all in a way that makes sense.

- DEADLINES. Your coursework has deadlines that you MUST MEET. So, you need to organise yourself and your time to produce great work in a set amount of time.

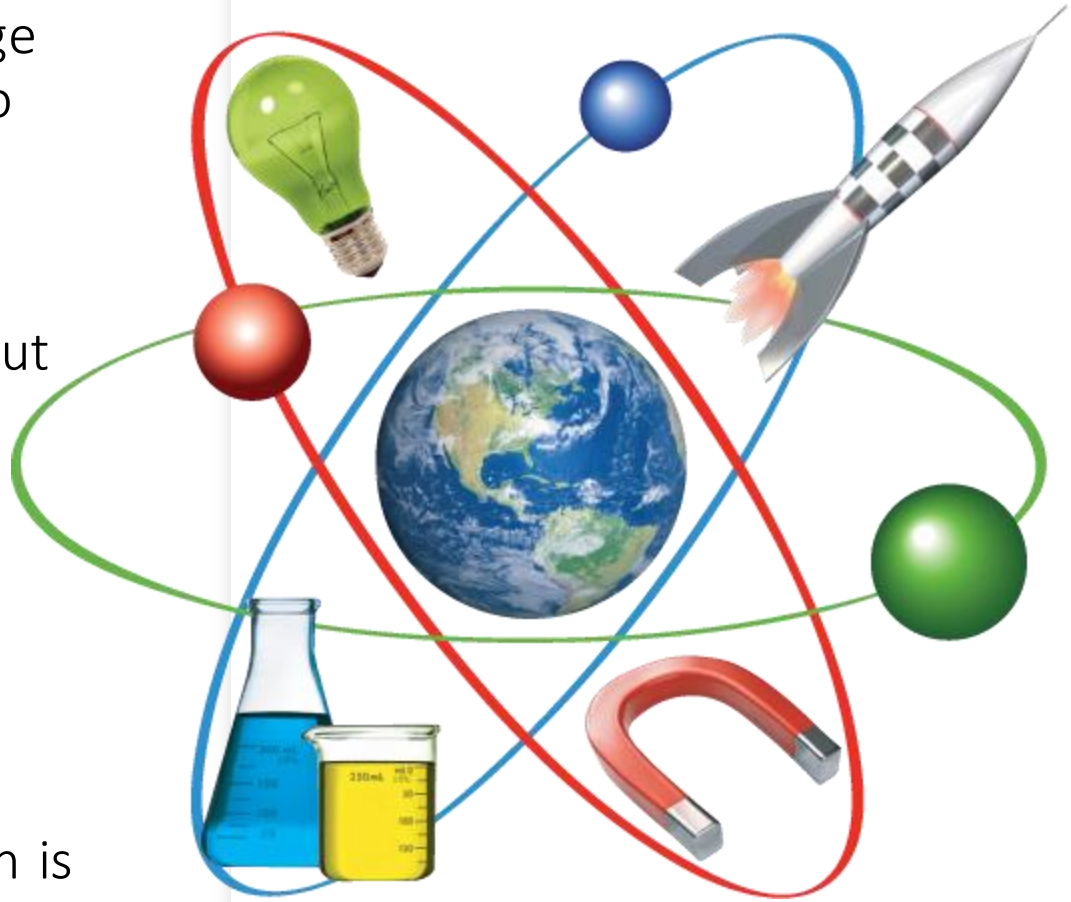
# Qualification Details

Vocational (career based) BTEC qualifications are designed to give learners the skills and knowledge needed to move into employment or progress to higher education.

The content of your qualification is therefore created and developed with the support and input of employers, industries, and Higher Education establishments.

These qualifications are written to meet the regulatory expectations of Government and national organisations.

The delivery and assessment of your qualification is carefully planned and monitored through clearly identified quality assurance measures to ensure that every BTEC learner's achievement is judged fairly and equally.



Let’s have a look at what other people say about the BTEC….

(1) Why choose BTEC Applied Science – YouTube

| · | Unit Title | Course Content |
|---|---|---|
| **Unit 1** | Principles and Applications of Science I | This unit will be assessed through a written exam worth 90 marks, which is set and marked by<br><br>Pearson. The exam will last two hours.<br><br>The paper is split into three sections, each worth 30 marks:<br><br>• Section A – Biology<br><br>• Section B – Chemistry<br><br>• Section C – Physics.<br><br>The topic areas covered in this unit include: animal and plant cells; tissues; atomic structure and bonding; chemical and physical properties of substances related to their uses; waves and their application in communications. |
| **Unit 2** | Practical<br><br>Scientific<br><br>Procedures and<br><br>Techniques | This unit introduces you to standard laboratory equipment and techniques, including titration, colorimetry, calorimetry, chromatography, calibration procedures and laboratory safety. Through the practical tasks in the unit, you will develop proficiency in the quantitative analytical techniques of titration and colorimetry, including learning to calculate the concentration of solutions. Internal assessment through four assignments |
| **Unit 3** | Science<br><br>Investigation Skills | Learners will cover the stages involved and the skills needed in planning a scientific investigation: how to record, interpret, draw scientific conclusions and evaluate. This unit will be assessed through a written task (Part B) worth 60 marks. The task is set and marked by Pearson and will be completed in one sitting, within a supervised assessment session timetabled by Pearson. In order to complete the written task in Part B, learners will need to obtain results/observations from the practical investigation in Part A. Pearson will release teacher/technician notes and guidance to centres to enable sufficient time for resources and trialing of the practical investigation. |
| **Unit 8** | Physiology of Human Body Systems | Internal assessment through three assignments. Learners will gain understanding of three main body systems: musculoskeletal, endocrine and digestive. Practical work will be carried out to develop further skills and understanding of the body systems. |

# *Over the summer…..*

Before you start the course in September, we would like you to investigate a person that is involved (or has been) in the world of science.

It could be someone you know, a famous scientist or a job that you are interested in.

What is really important is that YOU DO IT!

You need to hand it in during the first week back in September.

The next slides have guidance for how to go about it and areas you should aim to include.

# Researching a scientist/science career...

1) First of all you need to choose somebody or a job to investigate. This could be someone you have heard of, or someone from an area you are interested in. It might be a job that involves science that you have thought about.

2) The work you produce could be on paper (like a report) or done as a powerpoint. As a minimum you should produce 2 sides of A4 or a presentation that lasts for more than 3 minutes (this is longer than you think when you are stood in front of a group of people – practice it).

3) We will look at, share and present our work when we are back in September. It will be important for you and the group that you have work to share.

So make sure you do it!

## *Researching a famous scientist:*

Name
When were they alive/born etc
Where did they live?

How did they develop their interest in science?

What did they do that led them to the work they carried out?

What were/are the main pieces of work they have done?

How has their work benefitted society or certain groups of people?

If they hadn't carried out their work how would this have affected us/people/society?

## Researching a science job/career

What is the job?
Where does this job get carried out?
What qualifications / training are needed to be able to do the job?
Where can you do this training? How long does it take?
How does the job benefit people / society?
Are there any famous people that are connected to the career? Why have they used the job?
What do you think would make the career interesting / rewarding?

Remember, you only need to do one of these options – but you need to have it done by the first week back in September!!!

Some ideas for your investigation:

## Science jobs/roles:

Doctor, nurse, engineer, marine scientist, zoologist, environmental science.

## Famous scientists:

Copernicus, Galileo, Newton, Darwin, Curie, Einstein

Remember you only need to CHOOSE ONE!