

GCE Btec Applied Science Summer assignment.

Unit Assignment Theme: Preparation for examined content

Btec Unit. 1. Principles of science.

Student Name:

Duration: Summer Holiday onwards. Teacher(s): KJG

Assignment aim:

The following aspects listed below are just some of the taught topics that are part of an examined unit (this will give you an idea of the sort of topics to expect for the chemistry, physics and biology aspects of unit 1)

Task 1.

Research the following scientists and order their work into a time line of the development in our understanding of the structure of the atom: Democritus, John Dalton, JJ.Thompson, Ernest Rutherford, Neils Bohr, Erwin Schrodinger, James Chadwick

Task 2.

Explain the structure and function of muscular tissue, to include:

- The microscopic structure of a skeletal muscle fibre
- **Structural** and **physiological** differences between fast- and slow-twitch muscle fibres and their relevance in sport

Task 3.

Describe the features common to all waves and use the following terms as applied to waves:

- periodic time
- speed
- wavelength
- frequency
- Amplitude
- oscillation

Give Graphical representation of wave features

Remember you will need a folder and paper for September. You should also have the following:

- Scientific calculator
- Folder dividers
- Coloured Pens
- USB stick – so you can save resources that appear on the L drive