## Summer Preparation Work

Studying the Applied Science course is all about preparing you for a job in the scientific workplace. With us you will build and develop a strong practical based skill set that gives you an insight into how science is essential in industry. Some of the key investigations that you will carry out include light microscopy, titration, distillation, chromatography, colourimetry, dissection and many more. Our Applied Science students have gone on to study a wide range of courses at University including nursing, biomedical science, marine biology and biochemistry!

**Please be aware that prep work** is an important aspect of your induction onto all courses at Wilberforce Sixth Form College. Please have this ready to hand in during enrolment or to your course teacher in the first week of lessons.

Kind regards

Ashley Howe
**Faculty Head for STEM**

### Task 1 - Research

Research cell structure, the periodic table and energy using the following links (make sure that you click on the different topics on bioninja – there's quite a few)!
https://ib.bioninja.com.au/standard-level/topic-1-cell-biology/
https://alevelchemistry.co.uk/notes/atomic-structure-and-periodic-table/
https://www.s-cool.co.uk/a-level/physics/work-energy-and-efficiency/revise-it/work-the-principle-of-conservation-of-energy-an

### Task 2 - Create

Create an A3 Poster (2 A4 sheets if you don't have any A3) with the following titles:

1) Cell Biology
2) Atomic Structure and the periodic table
3) The Conservation of Energy

Make this a piece of work that you are proud of and start the College year strong. The work that you do in this will help to build a foundation of knowledge that you can use to help you achieve distinction grades in your assignments when you join us.

### Task 3 - Question

Complete the following questions on lined paper and hand them in:

1) What is a prokaryote?
2) What is a eukaryote?
3) Draw and label a prokaryotic cell
4) Draw and label a eukaryotic cell
5) What is an atom?
6) Draw a helium atom
7) What is an isotope?
8) Define the term 'work'
9) Write the equation for energy efficiency
10) Why is an energy saving light bulb more 'efficient' than a standard filament bulb?