6th Form Preparation work for **BTEC Science** **Week 3 and 4**	**Watch** This video which includes an amazing animation of some of the tiny machines inside living cells. Then, draw a diagram of a eukaryotic cell, research the organelles and explain their function. Visualizing the wonders of a Living Cell *TED* ***Time: 90 min***	**Research** the different types of muscles of the human body. Present your work in your own words and include references to show your sources. Include some coloured drawings—not images copied from the internet! ***Time: 1hr***	**Describe** the 3 different types of bonding covered at GCSE, - you may want to include diagrams. Use the information you have described to explain the properties of compounds formed from these types of bonding. **Time: 30 mins**
Research the steps involved in an acid–base titration. Write a method for performing one yourself. Then, research and write about **why** you might need to do one when working in a professional scientific laboratory. ***Time: 90 mins***	**Complete** Waves are important in countless modern technologies. Using the internet, research the features of longitudinal and transverse waves, and make a list of areas in science or engineering where waves are important. Then write an essay about one of those areas, explaining the features of waves that are most important in that case. ***Time: 2.5 hrs***	In BTEC it is essential that all work completed is **your own** and you **reference** all sources of information used, including websites. So get into good habits now!