Y7 Project Work - Summer Term 2

Further to the work you have done in Summer Term 1 and to help you prepare for Year 8, we would like you to work on the following three projects. If you can, try to spend roughly 3 hours per week on Science. We look forward to seeing your work when we return to school 😊

Biology – Reproduction and Pregnancy (please see separate sheet)

Chemistry – I am still waiting for last term’s project from a lot of you, please complete this as soon as possible. This term, continuing from the acids and alkalis work last term, you are going to investigate salts. To start with, I would like you to make up a very concentrated solution of table salt, then put it in places with different temperatures and compare them as the water evaporates. What is similar, what is different? If you are using very hot places like ovens, please be very careful. Take pictures and describe your results. Your method only needs to be a couple of sentences, is there any way you can find out the temperature of each location? Note that this project may take a few days or weeks, depending on your chosen locations.

Secondly, I would like you to use YouTube to watch someone making copper sulfate from copper oxide powder and sulfuric acid. You should use this, and the internet if you require it, to make a method to describe how we could do it at school, including diagrams and equipment required. Some of you should be able to work out the word equations involved (and some of you may even be able to work out balanced symbol equations!). Remember- the earlier you master the skills, the easier you’ll find it at GCSE.

Physics – Complete a presentation on all aspects of **‘Sound’**.

The presentation may be as a power-point, a poster, in a booklet form or completed in your exercise books.

You will firstly need to thoroughly research sound in detail.

I recommend you use Seneca 3.3.4 - Sounds, 3.3.5 - Sounds 2 and 3.3.6 - Humans and Sound, and also study BBC Bitesize KS3 Physics – Waves – What is a sound wave?, Sound Waves, How to measure the speed of a wave and how to play a record with a £5.00 note.

You will need to include detail and diagrams (printed from the internet if you wish). Make the presentation colourful.

Include the following:

* How sound is produced and travels
* Why the speed of sound changes in different types of matter
* A contrast between the speed of sound and the speed of light
* The link between loudness and amplitude
* The link between frequency and pitch
* State the range of human hearing and describe how it differs from the range of hearing in other animals
* How the ear works
* How your hearing can be damaged
* How a microphone detects sound
* What ultrasound is
* The uses of ultrasound