AQA Trilogy Science (Combined) – Chemistry Project

In Science, we will cover 3 different subjects: Biology, Chemistry and Physics. In the first year of GCSE we study B1, C1 and P1 and in the second year of GCSE we study B2, C2 and P2. You will sit an exam for each of these modules, so that is 6 science exams in the Summer of Year 11.

You will complete 12 classroom-based Required Practicals to support you in your exams. This project, for you to complete over your Summer holidays, is based on Chemistry, but brings in these vital practical and investigative skills.

Making ice cream

Did you know you can make ice cream and slushies without a freezer! In this experiment, you only need a few simple ingredients to be able to make your own ice cream. Full instructions are available at https://www.sciencebuddies.org/stem-activities/ice-cream-bag#instructions

What you need:

- *Sugar*
- *Cream (single or double)*
- *Vanilla extract*
- *Salt*
- *Ice cubes*
- *Zip-lock bags (one medium + one large)*
- *Towel*

Method

1. *In a **small/medium** ziplock bag, mix 1 tbsp of sugar, ½ cup of cream and ¼ tsp of vanilla extract. Seal well!*
2. *Add 4 cups of ice cubes to a **large** bag and then add ½ cup of salt to the ice. Don't let the salt mix with the cream (the inner bag must be tightly sealed).*
3. *Seal the larger bag and wrap in a tea towel, then shake for 5 minutes. You should notice the ice melting…and the cream turning into a solid!*

Hopefully you can achieve a tasty treat, but more importantly you should be able to see the effects of melting and freezing in action, in a really useful way! Can you explain why when the ice melts this causes the cream to freeze? Why is the salt important?

This is a fantastic opportunity to study states of matter and physical changes. You can find more at: https://www.bbc.co.uk/bitesize/guides/zwsdgdm/revision/2 and you may choose to investigate further by coming up with your own method for a slushie drink!

Put together your photographs and/or diagrams of your experiments in a poster, leaflet or booklet, all about physical and chemical changes. We look forward to seeing these in September!

Science in the news

For all of the latest scientific developments and how science is related to your world, visit The Day using your BHS log-in:

https://theday.co.uk/categories/science

Username: blaconhigh

Password: Blacon2020

A Summer of Science

If you fancy brushing up on your Science over the summer, try these weekly videos for Biology, Chemistry and Physics.

The 9 weeks take you all the way through Paper 1 (what you cover in year 9) and start Paper 2 (what you cover in year 10).

https://www.teachanation.co.uk/