

IB Chemistry 3 Summer Assignment

This summer you will begin your research for your IA. You will come up with your research question and methodology. The rubric and format for the IA will be located on my website. Please make sure to refer to your rubric as you are deciding what you want to perform your internal assessment on. Make sure you will have enough data to analyze and evaluate. You will complete the following.

- Give your research question, make sure there is ONE independent variable.
- What data will you be collecting?
- Give your chosen methodology (Titration, gravimetric analysis, creating a calibration curve, etc)
- Give a list of materials needed if it is item/chemical that we do not have you will need to look up the cost of these materials. If it is expensive (more than 10 dollars) and you are unable to purchase it yourself, you will need to find a suitable substitute or change your IA question
- You can search for ideas, but be careful you are not simply taking that idea and just recreating the experiment

Ideas (You are not limited to this)

- Measuring and comparing rates of reactions
- Finding the rate law of a chemical reaction
- Finding the activation energy of a reaction (Arrhenius Plot)
- Determining the concentration of a substance in a comparison
- Comparing methodologies to determine the concentration of a substance

Websites for Ideas

- <https://www.lanternaeducation.com/ib-blog/25-ib-chemistry-ia-topic-ideas/>
- <https://owltutors.co.uk/chemistry-ib-ia-ideas-2017-2018/>

Equipment that you will have access to:

- Conductivity Probes
- Gas Pressure Probes
- pH probes
- Temperature Probes
- Spectrophotometers
- UV-Vis Spectrophotometer
- Gas Chromatograph
- Dissolved Oxygen Probe
- Chloride/Salinity Probes
- Basic equipment such as burettes, scales, etc

Equipment we do NOT have

- Centrifuges
- Ask if you see a device on a methodology, but if you have never heard of it, probably not.

This will be due when you return to school. Please feel free to email me if you have any questions.

Ms. Kilpatrick