Science 7/8 class and lab considerations

- **NEVER** fabricate, alter, or calculate your data for a lab. Even if the data you gather doesn't fit your hypothesis or seems unintuitive, it's better to have strange data and think about the errors in your experiment or procedure than to falsify data.

- A line of best fit is a straight line, ie. it has constant slope. When you draw a line of best fit through a series of data points, it most likely will **NOT** pass through all or even **ANY** of your points, and that's OK. The goal is that your line of best fit is a straight line that best approximates the data points on your line graph.

- It's OK to not understand everything right away. Sometimes concepts and procedures take time to fully appreciate and understand, and that's normal. If you don't understand a concept at the end of class, consider:
    1. Asking your classmates about instructions or concepts you don't understand. They may have an interesting perspective that could help!
    2. If you don't understand the material required for a lab, talk to your teacher at least 1 class before the lab and ask questions to ensure you're ready for the lab.

- Lab procedures need to have 2 main focuses:
    1. Measure data that will be used to address the main purpose(s).
    2. Be effective, efficient, and with as minimal error as possible.

The second point is tricky and requires practise and experience to implement well. Good questions to ask yourself when making or reading a lab procedure are:

1. Does this procedure measure the data I need to address the purpose for this lab?
2. Can I measure the data with the materials available in the lab?
3. Can I measure the data with this procedure in a timely fashion? What can I do to increase efficiency in this procedure?
4. What error(s) might be introduced with this procedure? What can I do to minimize error? (ie. change measurement method, measure something different, etc.)