**Catastrophe at the Gatorade plant!**

Part of the Gatorade powder processing line went haywire and produced 3,700 tons of Gatorade that is off the recipe. Should Gatorade brand it as a new extra salty version called *Gatorade SeaBreeze* or is it unsafe to consume?

As the independent consultant, Gatorade has provided you with powders of both their regular and the potential SeaBreeze limited batch. In a **one page write up** to the company, justify your methodology, supply a high quality figure, quantify the excess and suggest a course of action for the company.

*Prior to the lab:*

Prepare a brief description of how your group intends to address this problem. Email this to Toberer and Caitlin.

Sign up w/ Caitlin Crawford for a time slot. She’ll email instructions out.

Don’t show up and waste Caitlin’s time, she’s doing this out of the goodness of her heart. Come in w/ a plan.

*During the lab time period, you will be provided:*

Salt

Gatorade SeaBreeze

Gatorade powder

Balance/weigh boats

Diffractometer

You’ll have approximately two weeks to write up the lab. Relevant due dates:  
**Friday Sept 16** – rough draft lab report from group due.

<Toberer provides feedback on rough draft>

**Friday Sept 23** – final draft lab report from group due.

*Lab report Appendices:*

I - Crystal structures for relevant compounds, highlighting their bonding

II – Method of analysis detailing how you came to your conclusions.

II I– Error analysis associated with determination of composition and a discussion of sources of uncertainty.

IV– Individual powder patterns for the primary constituents.

*Groups:*

John, Kevin, Luke Meagan, Rekha, Alex

Brian, Anastasia, Clarisa Ash, Michaela, Claudia,

Daniel, Nick, Kellen