Smartphone Chemistry and Ethics of Materials Usage - ARTIFACT

This is the final section of this unit. In consultation with the Dragonfly Initiative "Material Change" report, you will identify a mineral or material that is of critical importance to the electronics industry to focus on. **Ideally you will choose the same mineral/material that you did for the Advanced Bonding section of the unit.**

Refer back to the initial Internship post at the beginning of the unit. The tasks identified in that first post are:

- Provide a clear and comprehensive review of at least one material currently found in *each* of three key functional areas of a generic smartphone -- the screen, the casing, and a select component in the interior. You should provide a detailed discussion of the structure, bonding, and properties of a currently-in-use material for these *three* areas;
- Explain the sustainability and responsibility issues with the supply chain for your chosen *materials* commonly found in a generic smartphone;
- Identify, if possible, appropriate sustainable replacement materials for problematic ones in current phones. Should such materials not be available, highlight practices that might be altered to make currently used materials less problematic.

UPDATES:

- Instead of researching minerals/materials for each of the three key functional areas of a smartphone, choose **ONE**. You are still required to provide a detailed discussion of the structure, bonding, and properties of a currently-in-use mineral/material for one of the areas -- **this is what you will have covered in the paper/submission of your choice this past week on Advanced Bonding. There is no need to provide a full discussion of bonding again! But still provide a context for your material.**
- **ADDENDUM:** You are also responsible for identifying the key functional aspects of your chosen mineral/material. That is, what is your chosen mineral/material used for in a phone?
- You will still be responsible for an explanation of the sustainability and responsibility issues with the supply chain for your chosen **ONE MINERAL/MATERIAL** (*as opposed to the original three minerals/materials*) commonly found in a generic smartphone;
- Identify, if possible, an appropriate sustainable replacement MINERAL/MATERIAL for problematic ones in current phones. Should such **MINERAL/MATERIAL** not be available, highlight practices that might be altered to make currently a used **MINERAL/MATERIAL** less problematic. *(Emphasis on single mineral/material)*

SIGN UP: *The sign up sheet from the previous week's artifact is found here . This is where you signed up for a specific material/mineral.*

FORMAT:

The format for your unit artifact is an oral presentation of all the above points. Constraints:

- Presentation should last between 6 and 7 minutes. No more, no less.
- The oral presentation may take the form of a powerpoint presentation, a pre-recorded video that you show, a whiteboard presentation, or a poster talk. If something else occurs to you, please let me know!
- The presentation is to be given during your scheduled Assessment Block
- Order of presentation will be determined randomly (spinning wheel)