***\*copy this response sheet into Google Docs and be sure to share it with me ldbooth@educbe.ca or it will be marked as missing***

*Change the name of your Google Doc from* Learn Alberta Chem Labs to:

9A - First Name Last Initial (eg. Lindsay B)

Or

9B - First Name Last Initial

*Work through each of the 5 different lab activities. These learning activities require you to use your existing lab and computer skills to carry out the investigations. No list of instructions is provided (you need to use your scientific reasoning). You may need to download flash on the computer (just click to download).*

*If, after copying and pasting them, the links do not work go to* [*www.learnalberta.ca*](http://www.learnalberta.ca) *and in the* ***Find Resource*** *section, type the lab name into the keyword section. The labs below are the first resource that will come up.*

**DATE:**

**Lab 1 - Physical Change or Chemical Change**

[**http://www.learnalberta.ca/content/secsu/html/matter\_and\_chemical\_change/ChemicalAndPhysicalChange/index.html**](http://www.learnalberta.ca/content/secsu/html/matter_and_chemical_change/ChemicalAndPhysicalChange/index.html)

1. What are the dangers of using Mercury II Oxide?
2. Describe the physical change you observed (what compound and what happened).
3. Describe the chemical change you observed (what compound and what happened).
4. Record the chemical equation for heating ice and for heating mercuric oxide, include states and make sure your equation is balanced.
5. How did you know a chemical change occured? Use observable characteristics and describe what happened at the molecular level.

**Lab 2 - Ionic and Molecular Compounds**

[**http://www.learnalberta.ca/content/secsu/html/matter\_and\_chemical\_change/ionic/index.html**](http://www.learnalberta.ca/content/secsu/html/matter_and_chemical_change/ionic/index.html)

1. Go through the “SHOW” mode for introduction (bottom right hand corner of the screen), periodic table, state, solubility, and conductivity (this should take 10-15 minutes).
2. Go through the “EXPLORE” mode.Use the print screen function to copy/paste your completed data table here. *(To print screen “command - shift - 4” select the area to be printed, it will be saved to your desktop, you can then use “insert” and “image” on the Google Doc menu)*
3. Complete the following table (use more than one word answers, this is your opportunity to show me depth of understanding so rather than “yes they conduct electricity” explain why/how).

|  |  |  |
| --- | --- | --- |
|  | **Molecular Compounds** | **Ionic Compounds** |
| State at room temperature? |  |  |
| Soluble in water? |  |  |
| Conducts electricity? |  |  |

**Lab 3 - Factors Affecting Reaction Rate - Temperature**

[**http://www.learnalberta.ca/content/secsu/html/matter\_and\_chemical\_change/Temperature/index.html**](http://www.learnalberta.ca/content/secsu/html/matter_and_chemical_change/Temperature/index.html)

1. Use the print screen function to paste a copy of your completed data table here. *(To print screen “command - shift - 4” select the area to be printed, it will be saved to your desktop, you can then use “insert” and “image” on the Google Doc menu)*
2. How did your results confirm/conflict with what you know about temperature and reaction rates? Be specific in your response.

**Lab 4 - Factors Affecting Reaction Rate - Particle Size**

[**http://www.learnalberta.ca/content/secsu/html/matter\_and\_chemical\_change/ParticleSize/index.html**](http://www.learnalberta.ca/content/secsu/html/matter_and_chemical_change/ParticleSize/index.html)

1. Use the print screen function to paste a copy of your completed data table here. *(To print screen “command - shift - 4” select the area to be printed, it will be saved to your desktop, you can then use “insert” and “image” on the Google Doc menu)*
2. How did your results confirm/conflict with what you know about particle size and reaction rates? Be specific in your response.

**Lab 5 - Factors Affecting Reaction Rate - Concentration**

[**http://www.learnalberta.ca/content/secsu/html/matter\_and\_chemical\_change/Concentration/index.html**](http://www.learnalberta.ca/content/secsu/html/matter_and_chemical_change/Concentration/index.html)

**Responses**

1. List four safe handling of acid instructions:
2. Use the print screen function to paste a copy of your completed data table here. *(To print screen “command - shift - 4” select the area to be printed, it will be saved to your desktop, you can then use “insert” and “image” on the Google Doc menu)*
3. How did your results confirm/conflict with what you know about concentration and reaction rates? Be specific in your response.

If you finish early, go through the questions and see where you can add more information. Use the Science Focus textbook to help add to your explanations (this can be found on my website: boothmountroyal.weebly.com)