**CHEMISTRY 2022-23 October 27, 2022**

**Today’s Agenda (Day 45)**

1. HOUSEKEEPING ITEMS

**🡪**

1. Homework Check:

🡪 Mini-Lab – Properties of Magnesium

🡪 Practice Problems 7.1 – 7.3

1. Class Activity:

🡪 TEST: **Chapter 7**

 **\*Go to** [**www.socrative.com**](http://www.socrative.com) **🡪 enter room “MSBCHEM2020” 🡪 enter ID #**

🡪 MONDAY: Chapter 8 PPT Review

1. Section 8.1 – The Covalent Bond
2. Section 8.2 – Naming Molecules
3. Section 8.3 – Molecular Structures
4. Section 8.4 – Molecular Shapes
5. Section 8.5 – Electronegativity and Polarity

HOMEWORK:

* READ: Chapter 8 – Covalent Bonding
* COMPLETE: Chapter 8 Vocabulary
* STUDY: Chapter 8 Test, Chapter 7 & 8 Vocabulary

CHAPTER 7

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Alloy | Anion | Cation | chemical bond | crystal lattice | delocalized electron |
| Electrolyte | electron sea model | formula unit | ionic bond | ionic compound | lattice energy |
| metallic bond | monatomic ion | oxidation number | Oxyanion | polyatomic ion |  |

CHAPTER 8

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| coordinate covalent bond | covalent bond | endothermic reaction | exothermic reaction | Hybridization | Lewis structure |
| Molecule | Oxyacid | pi bond | polar covalent bond | Resonance | sigma bond |
| structural formula | VSEPR model |  |  |  |  |

REMINDERS:

* ~~TEST:~~ **~~Ch 7 🡪 Oct. 27~~**
* Chapter 8 Vocabulary – Oct. 27
* QUIZ**: Chapter 7 & 8 Vocabulary 🡪 Nov. 1**
* TEST: **Ch 8** 🡪 **Nov. 8**

**CHEMISTRY 2022-23 MINI LAB**

**CHAPTER 8 MIN LAB – Compare Melting Points**

**How can you determine the relationship between bond type and melting point?** The properties of a compound depend on whether the bonds in the compound are ionic or covalent.

**Procedure** 

1. Read and complete the lab safety form.

2. Create a data table for the experiment.

3. Using a permanent marker, draw three lines on the inside bottom of a disposable, 9-inch aluminum pie pan to create three, equal wedges. Label the wedges, A, B, and C.

4. Set the pie pan on a hot plate. WARNING: Hot plate and metal pie pan will burn skin—handle with care.

 5. Obtain samples of the following from your teacher and deposit them onto the labeled wedges as follows: sugar crystals (C 12H 22O 11), A; salt crystals (NaCl) B; paraffin (C 23H 48), C.

6. Predict the order in which the compounds will melt.

7. Turn the temperature knob on the hot plate to the highest setting. You will heat the compounds for 5 min. Assign someone to time the heating of the compounds.

8. Observe the compounds during the 5-min period. Record which compounds melt and the order in which they melt.

9. After 5 min, turn off the hot plate and remove the pie pan using a hot mitt or tongs. 10. Allow the pie pan to cool and then place it in the proper waste container.

**Analysis**

1. State Which solid melted first? Which solid did not melt?

2. Apply Based on your observations and data, describe the melting point of each solid as low, medium, high, or very high.

3. Infer Which compounds are bonded with ionic bonds? Which are bonded with covalent bonds?

4. Summarize how the type of bonding affects the melting points of compounds.

**CHEMISTRY 2022-23 PRACTICE PROBLEMS**

**CHAPTER 8 – Covalent Bonds**

**Practice Problems 8.1 –** Lewis Structure of a Molecule



**Practice Problems 8.2 –** Naming Binary Molecular Compounds







**Practice Problems 8.3 –** Lewis Structure for a Covalent Compound with Single Bonds



**Practice Problems 8.4 -** Lewis Structure for a Covalent Compound with Multiple Bonds



**Practice Problems 8.5 –** Lewis Structure for a Polyatomic Ion



**Practice Problems 8.5 –** Lewis Resonance Structures



**Practice Problems 8.6 –** Lewis Structure: Exception to the Octet Rule



**Practice Problems 8.7 –** Find the Shape of a Molecule

