**ARC Week at Glance – Meena (S 1, W 13)**

**Topic: unit 2- ionic compound, structure and properties Course: AP Chemistry Grade: 9-12 Dates: Oct 28-Nov 1**

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|  | **Learning Target**  **(I am learning …)** | **Criteria for Success**  **(I can…)** | **Activation/ Instruction** | **Collaboration/**  **Guided Practice** | **Independent Learning/ Assessment** |
| *(Include at least one/two formatives\*in any part of the lesson as needed)* | | |
| **Monday** | *I am learning about the types of chemical bonds.* | *I can….*  *--Model how bonds form in ionic compounds.*  *--Infer the name and/or chemical formula of ionic & covalent compounds.*  *--contrast ionic and covalent compounds properties.* | *Bell work: write the Lewis structure for the following elements:*  *Calcium, Nitrogen, silicon, neon, chlorine, oxygen, phosphorous.*  *Discuss the answer and guide the students with the orientation of electrons while representing the Lewis structure.* | *Video/ppt on ionic bonding.*  *-discuss the definition by recalling the terms cations and anions.*  *- introduce the concept of electrostatic force of attraction*  *By comparing the attraction and repulsion using a magnet.*  *-show the transfer of electrons from cations to anions using arrows.*  *- the students will practice by showing more examples.* | *Exit ticket: write a short note on what you have learned today.*  *College board videos 2.1 and topic m.c.q’s* |
| **Tuesday** | *I am learning about the types of chemical bonds* | *I can….*  *--Model how bonds form in ionic compounds.*  *--Infer the name and/or chemical formula of ionic & covalent compounds.*  *--contrast ionic and covalent compounds properties.* | *Bell work: Arrange the following ionic compounds in order of increasing lattice energy: NaF, CsI, and CaO.* | *2.1-2.4 I do, we do and you do packet.* | *College board videos 2.2 and topic m.c.q’s* |
| **Wednesday** | *I am learning about the intramolecular forces and potential energy.* | *I can…*  *Represent the relationship between potential energy and distance between atoms, based on factors that influence the interaction strength.* | *Bell work: Which substance would you expect to have the greatest lattice energy, MgF2, CaF2, or ZrO2?* | *Students will work in pairs/groups to collect the data to prove that ions will conduct electricity only in solution.*  *-Realize that production of bubbles in the reaction is an evidence to say that the solution conducts electricity.*  *-Draw conclusion which samples conducted an electric current and what do these samples have in common.*  *-The students will perform the lab and answer the prelab and post lab questions. (ionic and covalent bonding lab)* | *College board videos 2.3 and topic m.c.q’s* |
| **Thursday** | *I am learning about the intramolecular forces and potential energy.* | *I can.*  *--Describe & model how electrons flow in metallic bonds & relate to metallic properties.*  *--Describe & model how electrons flow in metallic bonds & relate to metallic properties.  Support the use of alloys for products based on their properties & chemical structure.* | *Bell work: Predict the formula of the stable binary compound formed when nitrogen reacts with fluorine, and draw its Lewis structure.* | *Students will work in pairs/groups to collect the data to prove that ions will conduct electricity only in solution.*  *-Realize that production of bubbles in the reaction is an evidence to say that the solution conducts electricity.*  *-Draw conclusion which samples conducted an electric current and what do these samples have in common.*  *-The students will perform the lab and answer the prelab and post lab questions. (ionic and covalent bonding lab)* | *College board videos 2.4 and topic m.c.q’s* |
| **Friday** | *I am learning about the structure of ionic solids, metals and alloys.* | *I can…*  *Represent a ionic solid, metallic solid and/or alloy using a model to show essential characteristics of the structure and interactions present in the substance* | *No bell work: discuss the progress of the student’s project work.* | No bell work: Continue to work on your science fair project. | *College board videos 2.5 and topic m.c.q’s* |

**Additional Info: Literacy Task Minor Grade Major Grade Course materials and resources are available in Canvas.**