**ARC Week at Glance – Meena (S 1, W12)**

**Topic: Periodic trends Course: AP Chemistry Grade: 9-12 Dates: October 21-25**

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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 periodic trends.* | *I can…*  *-- order elements in terms of their atomic and ionic radius.*  *-I can justify uses of an element based on metallic character and reactivity.* | *Video showing trends such as reactivity http://www.youtube.com/w atch?v=MGTKVaZcq8Y*  *Bell-ringer: Ask students probing questions about valence electrons and the periodic table* | *The teacher will explain what is atomic radius and metallic character.*  *--- the students will visualize the trends from top to bottom and left to right in the periodic table.*  *--- discuss the reason for the trends whether they will increase or decrease and the reason behind it.*  *---- the students will read the passage packet and answer the questions by understanding the concept.* | *Exit ticket: mention the different analogies which will help you to remember the definition of the 5 trends you learnt today*.  *College board videos on periodic trends and practice quiz.* |
| **Tuesday** | *I am learning about the periodic trends.* | *I can…*  *-- order elements in terms of their ionization energy.*   1. *-- Define ionization energy and know group and period general trends for ionization energy. Explain the reasoning behind the trend.* 2. *--Apply trends to arrange elements in order of increasing or decreasing ionization energy*. | *Recall the definition of the 5 trends in the periodic table.*    *The students will attempt few quizzes/open ended questions as a bell ringer for the day and will share their answers through proper reasoning.* | *.  Discuss and define ionization energy.*  --*visualize the trends from top to bottom and left to right in the periodic table.*  *--explain the reason for the trends.*  *--- complete the reading passage packet questions*. | *Exit ticket: Write 3 things that interested you in this unit.*  *-*-*explain one trend that you need help with?*  *College board videos on periodic trends and practice quiz.* |
| **Wednesday** | *I am learning about the periodic trends.* | *I can…*  *-- order elements in terms of their electron affinity and electronegativity.*  *--* *predict the relative electron affinity of an element based on its position in the periodic table and neighboring elements.* | *Bell work: MCQ with justification of answer*. | *Discuss nuclear charge and how that affects the trends.*  *Discuss the effects of electron shielding.*  *--explain the reason for the trends.*  *---1.7 periodic trends worksheet—I do, we do and you do.* | *College board videos on periodic trends and practice quiz, mcq’s and frq’s* |
| **Thursday** | *I am learning about the periodic trends.* | *I can…*  *-- order elements in terms of their electron affinity and electronegativity.*  *--* *predict the relative electron affinity of an element based on its position in the periodic table and neighboring elements* | *Bell ringer: FRQ’s from college board. Discuss the response from each group and come out with a collective and correct answer.* | *Introduce Periodic Trends with the*[*Atomic Radius –GIZMO Exploration*](https://teach-chemistry.s3.amazonaws.com/2017/05/04/14/23/25/3c5435c6-4166-4ad3-9abc-47bae88bf476/activity-ptable-student-atomicradius.pdf)*activity.*    *----Use this simulation and the accompanying*[*Simulation: Periodic Trends*](https://teachchemistry.org/classroom-resources/periodic-trends)*activity to further explore this topic. In the simulation, students will investigate several periodic trends, including atomic radius, ionization energy and ionic radius. Through the use of this simulation students will have the opportunity to examine atomic data as well as visually compare and interact with select elements from the periodic table* | *College board videos on periodic trends and practice quiz, mcq’s and frq’s* |
| **Friday** | *I am learning about the periodic trends.* | *I can …*  *--demonstrate the understanding of the concepts –atomic radius, ionic radius, ionization energy, electronegativity and electron affinity.* | *Review for the quiz.* | *Students will complete a quiz on canvas/ paper pencil test.* | *College board videos on periodic trends and practice quiz, mcq’s and frq’s* |

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