Trish Kuberra University of Wyoming RAMPED Lesson Plan 2016

| | University of wyoming RAMPED Lesson Plan 2016 |
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| Pretest Questions | What is the oxidation state of the Alkali Metals? What is the oxidation state of the Alkaline Earth Metals? What can be said of the oxidation state of the Transition Elements? What is the oxidation state of the Noble Gases? What is the oxidation state of the Halogens? What is the oxidation state of Oxygen? What is the oxidation state of Aluminum? What is the oxidation state of Carbon? Explain the relationship between the place within the Periodic Table and it oxidation state of the O₂, Al, and C. |
| Objectives | Identify the oxidation patterns of atomic families of the periodic table. |
| Catch | Use a prepared Scratch Jigsaw puzzle to demonstrate Scratch program basics. |
| Activity | Using the program Scratch with images of atomic electron configurations students will create a jigsaw puzzle to showcase the oxidation patterns embedded in the placement of atoms within the periodic table. |
| Review | The three subatomic particles and their location relative to the atom. Electron Configurations |
| Assessments | Formative - Pretest Summative - Post test |
| Post Test Questions | What is the oxidation state of the Alkali Metals? What is the oxidation state of the Alkaline Earth Metals? What can be said of the oxidation state of the Transition Elements? What is the oxidation state of the Noble Gases? What is the oxidation state of the Halogens? What is the oxidation state of Oxygen? What is the oxidation state of Aluminum? What is the oxidation state of Carbon? Explain the relationship between the place within the Periodic Table and it oxidation state of the O2, Al, and C. |
| Standards | WY: Science - Grade 9-12 Concepts & Processes Physical Systems |

| | SC11.1.10 Structure and Properties of Matter: Describe the atomic structure of matter, including subatomic particles, their properties, and interactions. Recognize that elements are organized into groups in the periodic table based on their outermost electrons and these groups have similar properties. Explain chemical bonding in terms of the transfer or sharing of electrons between atoms. Describe physical states of matter and phase changes. Differentiate between chemical and physical properties, and chemical and physical changes. |
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| NGSS Crosscutting Concepts | PatternsSystems & systems modelsStability and Change |
| Benefits | |