**JMS Lesson Plan**

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| **Teacher:** |  | **Subject:** | Science |
| **Date:** | **Beginning:** 10/23/2017**Ending:**  10/27/2017 | **Grades:** | 8th |
| **Learning****Targets:** | I can describe how compounds are made from combinations of atoms.I can explain how chemical formulas represent compounds.I can explain how electrons are involved in chemical bonding.I can describe what the different types of chemical bonds are.I can analyze how ionic and covalent bonds influence substances’ properties.I can identify different forms of the same element. | **Connects with:** | **ELA – Powerful verbs** **Short Constructed Response CSET**  |
| **Standard(s):** | S8P1.f Recognize that there are more than 100 elements and some have similar properties as shown on the Periodic Table of Elements.S8P1.g Identify and demonstrate the Law of Conservation of Matter. |
| **DOK Level** | **Activities / Assignments / Questions** | **Assessment** |
| **­­****Remediation** | Atoms make up everything on EarthElements are pure substances and made of only one type atom.Molecules are made of at least two atoms.Compounds are new substances created from two or more elements. | [x]  Formative | [x] Selected Response [ ] Constructed Response [ ] Verbal[ ] Rubric[ ] Other  |
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| **2** | How can millions of compounds be made from the atoms of about 100 elements?How are ionic bonds and covalent bonds different?Why do ionic compounds have high melting points?Activity – Ball and Stick Model (toothpicks and marshmallows) | [x]  Formative[x]  Summative | [ ] Selected Response - [x] Constructed Response – [ ] Verbal[x] Rubric[x] Other – lab  |
| **3** | How might you distinguish between hydrogen and peroxide water?How can two compounds made from the same elements be different?Would you expect the bonds in ammonia to be polar covalent? Why or why not? Cite textual evidence to support.Is the element silicon likely to form ionic or covalent bonds? Cite your evidence.Why might the water in mineral springs be a better conductor of electricity than purified drinking water? | [x]  Formative[ ]  Summative | [x] Selected Response[x] Constructed Response –[ ] Verbal[x] Rubric[ ] Other – [ ] Other –  |
| **4** | Interpreting Tables (Performance Task)How many different ways can you depict or represent a compound? Choose one compound and depict it at least 3 different ways. What are the strengths and weaknesses of each representation? What different types of information do the different representations give? | [x]  Formative[ ]  Summative | [ ] Selected Response[x] Constructed Response -[ ] Verbal[x] Rubric[ ] Other – [ ] Other – |
| **Resources:** | Textbook – Physical Science (McDougal Littell)Rubric – Interpreting Tables –performance task pg. 193Ball and stick 3D model |

**Monday-** Complete Element Tile Project

**Tuesday-** Chemical bonds hold compounds together - ball and stick model (hands-on activity -marshmallows/toothpicks/notecards)

**Wednesday** –The properties of a substance depends on the type of bonds between its atoms bonds (Vocabulary and Key Concept review pg. 191)

**Thursday** – Close read review of Chapter 6

**Friday** – Assessment Chapter 6

**NOTES:**

<http://gpb.pbslearningmedia.org/resource/nvhe.sci.chemistry.compounds/how-elements-form-compounds/>(How elements form compounds)

<https://www.youtube.com/watch?v=r3ZiReLYGEM> bonding

**ANCHOR ACTIVITIES:**

USA Test Prep activities

<https://www.youtube.com/watch?v=AfXxZwNLvPA> Atoms, Elements, Molecules, Compounds

<https://www.youtube.com/watch?v=l1VXM_b2KFY> atoms, molecules, bonding

<https://www.youtube.com/watch?v=VSc491HLzDo> covalent and ionic bonding