**JMS Lesson Plan**

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| **Teacher:** | Shelly Vincent | **Subject:** | Science |
| **Date:** | **Beginning:** 12/11/2017**Ending:**  12/21/2017 | **Grades:** | 8th |
| **Learning****Targets:** | I can obtain, evaluate, and communicate information about the law of conservation of energy to develop arguments that energy can transform from one form to another within the system.  | **Connects with:** | **ELA – Short Constructed Response CSET**  |
| **Standard(s):** | S8P2 a. Analyze and interpret data to create graphical displays that illustrate the relationships ofkinetic energy to mass and speed, and potential energy to mass and height of an object.S8P2b. Plan and carry out an investigation to explain the transformation between kinetic andpotential energy within a system (e.g., roller coasters, pendulums, rubber bands, etc.).S8P2c. Construct an argument to support a claim about the type of energy transformations within asystem [e.g., lighting a match (light to heat), turning on a light (electrical to light)].S8P2d. Plan and carry out investigations on the effects of heat transfer on molecular motion as itrelates to the collision of atoms (conduction), through space (radiation), or in currents in aliquid or a gas (convection). |
| **DOK Level** | **Activities / Assignments / Questions** | **Assessment** |
| **­­****Key Terms** | Energy, kinetic energy, potential energy, law of conservation of energy, solar cell, temperature, degree, thermometer, heat, thermal energy, calorie, joule, specific heat, conduction, conductor, insulator, convection, radiation, kinetic theory of matter  | [ ]  Formative | [ ] Selected Response [ ] Constructed Response [ ] Verbal[ ] Rubric[ ] Other  |
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| **2** | Bell Ringer – warm ups (GoFar)USA Test Prep – quiz and anchor activitiesWhole Group – Energy TransformationLab Stations (investigate, explore, research)Reinforcement worksheets  | [x]  Formative[ ]  Summative | [x] Selected Response - [ ] Constructed Response – [x] Verbal[ ] Rubric[ ] Other  |
| **3** | Lab Stations (assess, illustrate, write)Lab – Cinnamon Toast worksheetUSA Test Prep – Benchmark and anchor activitiesGo Far activitiesUSA Test Prep – post test | [x]  Formative[x]  Summative | [x] Selected Response[x] Constructed Response –[ ] Verbal[ ] Rubric- 2 point SCR[x] Other – Lab sheet[ ] Other –  |
| **4** | CSET - student constructs an argument to support a claim about the type of energy transformation within a system (lighting a match, turning on a switch, etc.) | [ ]  Formative[x]  Summative | [ ] Selected Response[x] Constructed Response -[ ] Verbal[x] Rubric – 2 point[ ] Other – [ ] Other – |
| **Resources:** | Textbook – Physical Science (McDougal Littell)CSETUSA Test Prep Go Far questions |

**Monday-** Snow/Teacher Workday

**Tuesday-** Energy Transformation Lab Stations (investigate, research, explore)

**Wednesday** – Energy Transformation Lab Stations (assess, illustrate, write)

**Thursday** – Winter Benchmark

 Anchor activities – USA Test Prep

**Friday** – Quiz S8P2 a,b,c,d (USA Test Prep)

 CSET – energy transformations within a system

**Monday –** Review Standard S8P2a,b,c,d

**Tuesday –** Unit Test S8P2

**Wednesday –** Lab: Cinnamon Toast (Conduction, Convection & Radiation)

 Reinforcement Worksheets – Energy Transformation and Forms of Energy

**Thursday –** USA Test Prep (pretest S8P3) and Newton Laws of Motion (https://youtu.be/JGO\_zDWmkvk)

**Friday –** Holiday Break Begins