**JMS Lesson Plan**

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| **Teacher:** | Shelly Vincent | **Subject:** | Science |
| **Date:** | **Beginning:** 9/25/2017**Ending:**  9/29/2017 | **Grades:** | 8th |
| **Learning****Targets:** | I can explain how energy is transferred through heat.I can describe how materials are used to control the transfer of energy through heat. | **Connects with:** | **Earth Science – (convection cycles) lava/magma, weather patterns, sea breeze** |
| **Standard(s):** | S8P2 – Plan and carry out investigations on the effects of heat transfer on molecular motion as it relates to the collision of atoms (conduction), through space (radiation), or in currents in a liquid or a gas (convection). |
| **DOK Level** | **Activities / Assignments / Questions** | **Assessment** |
| **­­****Remediation** | Review States of Matter | [x]  Formative | [ ] Selected Response - [ ] Constructed Response - [x] Verbal[ ] Rubric[x] Other – diagram/model[ ] Other –  |
| **2** | ISN notesWorksheet – conduction, convection and radiationKinetic Theory of Matter – worksheet modelsSolar Oven – research and design | [x]  Formative[ ]  Summative | [ ] Selected Response - [ ] Constructed Response – [x] Verbal[ ] Rubric[x] Other – research[ ] Other –  |
| **3** | Interpreting Diagrams (1-6) pg. 127Lab – Popcorn (diagrams and analysis) Worksheet – The Heat is On (synthesis and inferences)Lab – Cinnamon Toast (diagrams and analysis)Interpreting Diagrams pg. 127 #6Teacher/Student conferences on short constructed response | [x]  Formative[x]  Summative | [x] Selected Response[x] Constructed Response [x] Verbal[ ] Rubric[ ] Other – [ ] Other –  |
| **4** |  | [x]  Formative[ ]  Summative | [ ] Selected Response[ ] Constructed Response -[ ] Verbal[ ] Rubric[ ] Other – [ ] Other – |
| **Resources:** | Textbook – Physical Science McDougal Littell[**https://www.youtube.com/watch?v=NVXLDPHGYhg**](https://www.youtube.com/watch?v=NVXLDPHGYhg)cartoon  heat vs temperature[**https://www.youtube.com/watch?v=6sUOMds\_zmE**](https://www.youtube.com/watch?v=6sUOMds_zmE)heat transfer song<https://www.youtube.com/watch?v=wr8Z4SCETPs> conduction, convection, radiation song |

**Monday** – Teacher/Student conferencing (short constructed response physical vs. chemical change)

 USA Test Prep – Complete any remaining assignments

**Tuesday** – Introduction to Heat Energy

 Lab – Popcorn (conduction, radiation, convection)

 Anchor Worksheets – conduction, radiation, convection

**Wednesday** **–** What is heat and thermal energy?

ISN notes – convection cycle (sea breeze, weather, lava magma, bunk beds, etc)

 ISN notes – conduction (conductors, insulators, hot cocoa with mugs and spoons)

 ISN notes – radiation (sunshine, microwaves, glowing coils, etc.)

 Worksheet – The Heat is ON (small groups with chart paper)

**Thursday** – How do you measure energy? (joule, calorie and specific heat)

 Lab – Cinnamon Toast (conduction and radiation)

 Interpreting Diagrams pg. 127

 Anchor worksheets – conduction, radiation, convection

**Friday** – Kinectic Theory of Matter

 Worksheet - Models of the States of Matter

Solar Oven – research and design via chrome books

 Key Concepts – pg. 125 (1-26)

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| "No amount of experimentation can ever prove me right; a single experiment can prove me wrong." Albert Einstein |  |