**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 | | | Formative | | Selected Response -  Constructed Response -  Verbal  Rubric  Other – diagram/model  Other – |
| **2** | ISN notes  Worksheet – conduction, convection and radiation  Kinetic Theory of Matter – worksheet models  Solar Oven – research and design | | | Formative  Summative | | Selected Response -  Constructed Response –  Verbal  Rubric  Other – research  Other – |
| **3** | Interpreting Diagrams (1-6) pg. 127  Lab – Popcorn (diagrams and analysis)  Worksheet – The Heat is On (synthesis and inferences)  Lab – Cinnamon Toast (diagrams and analysis)  Interpreting Diagrams pg. 127 #6  Teacher/Student conferences on short constructed response | | | Formative  Summative | | Selected Response  Constructed Response  Verbal  Rubric  Other –  Other – |
| **4** | |  | | 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 |  |