**JMS Lesson Plan**

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| **Teacher:** | Shelly Vincent | | **Subject:** | | Science | |
| **Date:** | **Beginning:** 8/1/2017**Ending:**  8/11/2017 | | **Grades:** | | 8th | |
| **Learning**  **Targets:** | I can distinguish between accuracy and precision.  I can describe standard safety protocols in a classroom laboratory.  I can explain what matter is.  I can describe how to measure the mass and volume of matter.  I can identify the smallest particles of matter.  I can describe how atoms combine into molecules.  I can describe how atoms and molecules move.  I can describe how pure and mixed matter are different and how they are related.  I can describe how atoms form compounds.  I can describe the different states of matter and how they behave. | | **Connects with:** | | **Math-Metric system** | |
| **Standard(s):** | Introduction to the nature of science not standard specific.  S8P1a- Develop and use a model to compare and contrast pure substances (elements and compounds) and mixtures  S8P1b-Develop and use models to describe the movement of particles in solids, liquids, gases, and plasma states when thermal energy is added or removed. | | | | | |
| **DOK Level** | **Activities / Assignments / Questions** | | | **Assessment** | | |
| **­­**  **Remediation** | What is volume? –Formulas  Metric system- mili-,centi-,deka-,deci-, kilo- | | | Formative | | Selected Response -  Constructed Response -  Verbal  Rubric  Other –  Other – |
| **2** | Introduce nature of science and metric vocabulary-  Observation, evidence, accuracy, precision, logical reasoning, hypothesis, theory, law, International System of Units (SI), and scientific notation,  How can you measure the volume of an irregular shape?  Why are scientists skeptical of the findings of other scientists?  Why do scientists make multiple trials during experimentation? | | | Formative  Summative | | Selected Response -  Constructed Response –  Verbal  Rubric  Other –  Other – |
| **3** | Why do scientific ideas change over time?  How has technology changed how scientists communicate, collect data, and analyze data?  Why is it important for scientists to have a common method of measurement?  What is the importance of representing data through specific types of graphs? | | | Formative  Summative | | Selected Response  Constructed Response -  Verbal  Rubric  Other –  Other – |
| **4** | | Why might a small increase in the dimensions of an object cause a large change in an objects’ volume? | | Formative  Summative | | Selected Response  Constructed Response -  Verbal  Rubric  Other –  Other – |
| **Resources:** | <https://www.youtube.com/watch?v=JijhDDJvExo> volume song  [**http://thehappyscientist.com/content/what-science**](http://thehappyscientist.com/content/what-science)The Happy Scientist  <https://www.youtube.com/watch?v=hDQ8ggroeE4> What is science?  <https://www.youtube.com/watch?v=de8OzOmUD7c> What is science? –pics  <https://www.youtube.com/watch?v=E8tuMaDxgJM> volume of rectangular prism  <https://www.youtube.com/watch?v=5Jbkk6ndivM> meniscus  <https://www.youtube.com/watch?v=KMNwXUCXLdk> density/displacement-Archimedes | | | | | |

**Monday** – Pre planning for teachers

**Tuesday** – Routines and Procedures, Lab (Index Card Tower)

**Wednesday** **–** Volume andGraduated Cylinder (Meniscus video, lab and worksheet)

**Thursday** – Graduated Cylinder ( Archimedes video, displacement lab, and worksheet)

**Friday** – Triple Beam Balance and Digital Scale (Lab and worksheet)

**Monday** – Fall Benchmark / Lab Safety and Tools (GoFar assessment and Kahoot)

**Tuesday** – International System of Units (SI), mili-, centi-, deka-, deci-, kilo-, Metric Scavenger Hunt, ISN metric reference sheet

**Wednesday** – Metric worksheet, Activity – metric scoot

**Thursday** – Matter is made of Atoms (molecules are always in motion, informational articles, and textbook study pg. 21-25)

**Friday** – States of Matter (ISN foldable, video and textbook study pg. 27-33)

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