**JMS Lesson Plan**

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| **Teacher:** | Shelly Vincent | | **Subject:** | | Science | |
| **Date:** | **Beginning:** 1/15/2018**Ending:**  1/19/2018 | | **Grades:** | | 8th | |
| **Learning**  **Targets:** | I can obtain, evaluate, and communicate information about cause and effect relationships between force, mass and the motion of objects | | **Connects with:** | | **ELA – Short Constructed Response CSET**  **Math – literal equations and inverse operations** | |
| **Standard(s):** | S8P3a. Analyze and interpret data to identify patterns in the relationships between speed and distance, and velocity and acceleration.  S8P3b. Construct an explanation using Newton’s Laws of Motion to describe the effects of balanced and unbalanced forces on the motion of an object.  S8P3c. Construct and argument from evidence to support the claim that the amount of force needed to accelerate an object is proportional to its mass (inertia) | | | | | |
| **DOK Level** | **Activities / Assignments / Questions** | | | **Assessment** | | |
| **­­**  **Key Terms** | Position, reference point, motion, speed, velocity, vector, acceleration | | | Formative | | Selected Response  Constructed Response  Verbal  Rubric  Other |
|  | **Anchor Activities** – USA Test Prep (review, reinforce and/or enhance) | | |  | |  |
| **2** | **Bell Ringer** – warm ups (GoFar)  **USA Test Prep** – pretest and quiz/assessment  **Worksheet** – Net force and Newton’s Laws  **Video clips** – Work and Force | | | Formative  Summative | | Selected Response -  Constructed Response –  Verbal  Rubric  Other |
| **3** | **Velocity/Time worksheets** – interpretation  **Lab and Activity** – Car/penny and Washer activity with data collection and inference worksheets | | | Formative  Summative | | Selected Response  Constructed Response –  Verbal  Rubric-  Other – literal equations  and inverse operations  Other – |
| **4** | | **Claim, Evidence and Reading** inferencing from a data set (this is equivalent to the CSET used in ELA class) | | Formative  Summative | | Selected Response  Constructed Response -  Verbal  Rubric – 2 point  Other –  Other – |
| **Resources:** | Textbook – Physical Science (McDougal Littell)  CSET  USA Test Prep  Go Far questions  STEMSCOPES – trial enrollment | | | | | |

**Monday – MLK Holiday (no school)**

**Tuesday –** Acceleration measures how fast velocity changes (pgs. 329-335)

Distance/Time graph – video <https://www.youtube.com/watch?v=LJctqrA9jhU&t=423s>

Or <https://www.youtube.com/watch?v=_MLH-9W0oxQ>

Distance/Time graph - worksheets

**Wednesday –** Newton’s First Law

STEMSCOPES – labs and activities with inference worksheets and data collection

Car and Penny

Washer or index card/cup/penny

**Thursday –** Newton’s Second Law

STEMSCOPES – worksheet and videos (work and force)

Newton’s Laws worksheet (1-6)

Net Force worksheet

**Friday –** Newton’s Third Law

STEMSCOPES – Data Set (Claim, Evidence, Reading)

This is reciprocal to the CSET used in ELA