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**Date:** 4/26/15

**Subject Area:** Science

**Essential Questions:** 1. How can you apply the steps of the scientific method and how do they work together?

 2. 1. How can the scientific method be useful in your own life?

 3. How do the different variables (manipulated, responding, control) relate to one another and how does a change in one variable affect the other variables?

**Title of the Unit:** Scientific Method

**Title of the Lesson:** Exploding into the Scientific Method!

**Estimated Time:** 30 minutes

**Summary of the Lesson:** The teachers will introduce the scientific method by showing a short video while completing a matching worksheet on the steps of the scientific method. We will apply the steps of the scientific method to an experiment done in class. The student will record his or her predictions, observations, and results before, during, and after the experiment on the given booklet.

**Materials Required:** Vinegar, gallon size Zip-Lock bag, tissue paper, tape measure, safety goggles, newspaper, baking soda

**Academic Standards: S5.A.1.1.1:** Explain how certain questions can be answered through scientific inquiry and/or technological design (e.g., investigate to find out if all clay or foil boats designs react the same when filled with paperclips).

**S5.A.1.1.2:** Explain how observations and/or experimental results are used to support inferences and claims about an investigation or relationship (e.g., make a claim based on information on a graph).

**S5.A.1.1.3:** Describe how explanations, predictions, and models are developed using evidence.

**Objectives:** DOK- L1. The student will be able to **identify** new vocabulary regarding the scientific meathod.

 L2. The student will be able to **compare** new vocabulary words with the steps of the scientific method

 L3. The student will be able to make predictions and **draw conclusions** during the experiment by using the scientific method.

**Vocabulary:** scientific method, hypothesis, experiment, conclusion, results, variable

**Procedure: Before-** The teachers will introduce the scientific method with a short video. While the video is playing, the student will be completing a matching worksheet that places the steps of the scientific method to its correct order.

 **During-** After the video, the teachers will go over the scientific method and the completed worksheet to make sure the student understands the steps of the scientific method.

 **After-** In this portion, the teachers will simultaneously perform the experiment while going over the steps of the scientific method. The student will be handed a booklet where he or she will complete the steps of the scientific method before, during, and after the experiment. After the lesson, the student will record his or her final results while discussing the experiment and the steps of the scientific method.

**Assessment:** The booklet will be the assessment for this lesson as it allows the teachers to check for the students understanding.

**Adaptations and Accommodations:** Any accommodations needed can be made during the lesson.