

# Scientific Method Mash Up

## Purpose & SOL

- Practice ordering the steps in the scientific method.
- Science 3.1, 4.1, 5.1

## Materials

- Scientific Method Mash Up Cards (see attached). Print on different colored paper for best results.
- Cones for each team

**Length**  
15 min.

## Introduction

Review the steps in the scientific method with a game of *Seats Up*.

Instruct students to jog in place if they can tell you the first step in the scientific method. Choose a student to answer. If correct, that student may switch to another student's seat. Continue until all steps have been reviewed.

## Implementation

## Relay

- 1) Divide the class into teams no larger than 5.
- 2) Each group will have a specific cone color or spot as their starting point. Set a cone with items for students to retrieve a few feet away. The students should stand in a line behind the start cone.
- 3) When the teacher says the 'magic word', the student will skip, hop, march, jump, etc. to retrieve a card and bring it back to their team and place it under the cone. When the student returns, it's the next student's turn.
- 4) Continue relay until students have collected all cards.
- 5) The students should put the cards in order and do sky reaches to show their cards are in the scientific method order.
- 6) Check each groups order. If correct, have them jog in place.
- 7) When all students are jogging in place, go over the order with the class.

## Cool Down

Have students stretch up to the ceiling and then slowly down to their toes. Repeat four times.

## Modifications

There are two types of cards attached. The first set has the steps with an explanation attached. This can be used if your class needs extra support. The second set students put the steps in order and match a definition with each step.



## **Problem**

**What are we testing?**

## **Research**

**Look at the past work of others to see if this problem has already been tested.**

## **Design the Experiment**

**Detail the materials and procedures that will be used. Identify the control variables.**

## **Test the Hypothesis**

**Follow the experimental design. Make observations and collect data.**

## **Organize/ Summarize Data**

**Make charts and graphs that explain the collected data. Summarize all observations.**

## **Conclusions**

**Share what was learned by the experiment. State any potential improvements that could be made.**

## **Formulate a Hypothesis**

**Identify variables and explain the expected outcome using an if/then statement.**

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<b><u>Formulate a Hypothesis</u></b>	<b>Identify variables and explain the expected outcome using an if/then statement.</b>
<b><u>Design the Experiment</u></b>	<b>Detail the materials and procedures that will be used. Identify the control variables.</b>
<b><u>Test the Hypothesis</u></b>	<b>Follow the experimental design. Make observations and collect data.</b>
<b><u>Organize/Summarize Data</u></b>	<b>Make charts and graphs that explain the collected data. Summarize all observations.</b>
<b><u>Conclusion</u></b>	<b>Share what was learned by the experiment. State any improvements that could be made.</b>