

**OBJECTIVE:**

Students will research a science-related "myth" believed in society. They will design and conduct an experiment to either accept or reject the myth. The student research teams will present their research, experiment and findings to the class.

**GOAL:**

To "bust" or "verify" a common myth that people in society believe.

**REQUIREMENTS:**

1. Students will find a myth that is science-related. The myth should be something of interest to the student.
2. Background research must be done on the myth. Include your sources for all background research. Research should include information on the following:
  - Where did the myth originate?
  - What is the current belief?
  - Is there a story behind the myth?
  - What research has been done to prove or disprove the myth?
3. Students will work in teams not exceeding two students on the research, design, experimentation and report of findings on the myth.
4. Once the myth has been chosen and researched, the students will design an experiment that will either prove or disprove the validity of the myth. The experimental design must be something that can be conducted at home with common materials or in the classroom using the equipment available to physics. The teacher must approve the experimental design.
5. Students may conduct the experiment in or outside of class. If the experiment is conducted outside of class, the students must videotape their work and record their results. If done in class the students may videotape and record results or conduct the experiment in front of the class.

6. Each Myth Buster team will also report on their findings to the class. Students will orally present their information to other teams. Presentation will be live in front of the class using PowerPoint, Notebook or another approved presentation software. The presentation should be no more than 15 minutes in length. The presentation must include:
- Background on the myth
  - Theoretical background calculations
  - Experimental results
  - Myth "busted" or "confirmed"
8. Student teams will also turn in a written lab report on their myth and experiment following approved Lab Report Format.
9. Presentations and reports will be due during the first week of January for fall classes, and the first week of June for spring classes.

**MYTH BUSTERS PROJECT SCORING:**

This project will be worth a total of 100 points.

<b>BACKGROUND RESEARCH</b>	<b>10 Points</b>
<b>EXPERIMENTAL DESIGN</b>	<b>10 Points</b>
<b>CONDUCTING EXPERIMENT</b>	<b>20 Points</b>
<b>ORAL PRESENTATION</b>	<b>20 Points</b>
<b>WRITTEN LAB REPORT</b>	<b>20 Points</b>
<b>PEER EVALUATION</b>	<b>20 Points</b>