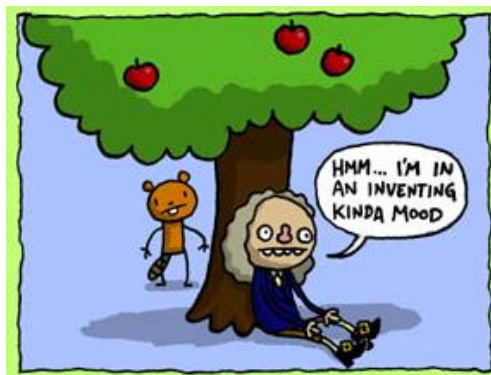


# Newton's Three Laws of Motion



**Description:** This WebQuest was designed for you to learn more about the Three Laws of Motion created by Sir Isaac Newton and how they are incorporated into everyday life.

## Introduction



**Why do objects move? Why don't objects move? Better yet, why do objects that are moving eventually stop?**

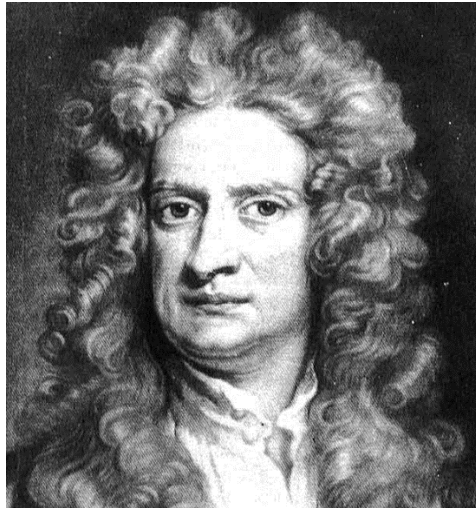
Much like Isaac Newton there are very curious individuals much like yourself that have witnessed phenomenon's in the world that might have questions that need answers. Today you will find those answers! As a famous scientist you and your partner will create three demonstrations that deal with each Law of Motion.

Once you have created your demonstrations you will test and identify what Law of Motion it deals with. Later this week you will present your demonstrations to the class.

## YOUR JOB:

Design and create 3 demonstrations that deal with each of Newton's Three Laws of Motion. Use the internet and the resources given to find ideas for your demonstrations. When you finish, you will conduct the demonstrations for your class. When each demonstration is finished you and your partner will have to explain to the class which Law of Motion you have demonstrated and why it goes with that certain law.

### Process



### ***You and your partner will research Newton's Three Laws of Motion***

1. You will work with a partner in order to complete this task. Your partner should be someone you get along with and will work well with
2. Once you have found a partner, you two will need to research Newton's Laws of Motion using the World Wide Web. Be sure to take notes in your Science Notebook. You will find several websites below that will help with your understanding of motion. Below is a description of Newton's Three Laws of Motion
  - **1st Law** - An object at rest will remain at rest unless acted on by an unbalanced force. An object in motion continues in motion with the same speed and in the same direction unless acted upon by an unbalanced force.
  - **2nd Law** - Acceleration is produced when a force acts on a mass. The greater the mass (of the object being accelerated) the greater the amount of force needed (to accelerate the object)
  - **3rd Law** - For every action there is an equal and opposite re-action.
3. After you have researched Newton's Laws of motion from the following websites make sure you take notes that will help you with your demonstrations.

### ***Newton's Three Laws of Motion***

- <http://csep10.phys.utk.edu/astr161/lect/history/newton3laws.html>
- [http://en.wikipedia.org/wiki/Newton's\\_laws\\_of\\_motion](http://en.wikipedia.org/wiki/Newton's_laws_of_motion)
- <http://teachertech.rice.edu/Participants/louviere/Newton/>
- <http://science.discovery.com/interactives/literacy/newton/newton.html>

4. Once you both come to an understanding of how Newton's Laws of Motion work and how they are connected to the real world, you and your partner must now create three demonstrations showing each Law of Motion in action. These could be actual experiments, drawings or digital images that demonstrates the laws. The demonstration needs to be school appropriate. You will need to bring in your own materials to demonstrate. **Be sure to write up a plan in your notebook before practicing for your presentation.**

5. After you and your partner have come up with your demonstrations and understand how they relate to the Laws of Motion, you must now do the demonstration.

6. As you prepare and practice the demonstrations, write down observations. Keep in mind the information you learned from the websites you visited earlier. Think about how each law was incorporated into your demonstration. (Remember that this information will be discussed in front of your classmates.)

7. Finally, practice your presentation with notecards. When you do your demonstration, let the audience know what Law of Motion you are showing and describe in detail what is happening. Answer any questions that might arise.