

INTRODUCTION TO PHYSICAL SCIENCE

Physical Science is the study of physics and chemistry. Put in other words, a physical scientist is a person who studies **energy** and **matter**.

Energy, or the ability to do work, comes in many forms. It could be classified as **potential** or **kinetic** and take forms such as **thermal**, **electromagnetic**, **mechanical** or **nuclear**. The matter studied by chemists, can be **organic** and deal with the chemistry of living things or **inorganic** and deal with such things as metals.

Lesson Checkpoint: *What does a Physical Scientist study?*

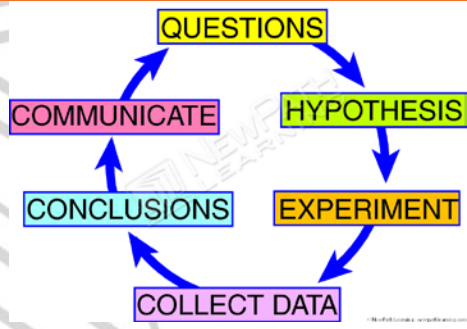
Scientific Method

To do their work properly, scientists use an organized method of solving problems referred to as the **scientific method of**

investigation. It proceeds through a series of steps and then the scientist repeats the process. During the process, the scientist performs experiments and it has the following steps:

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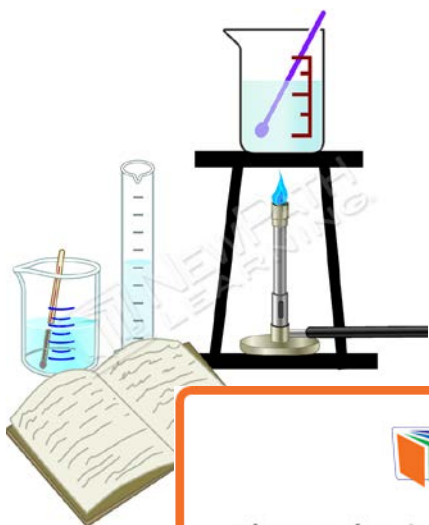


The results of the experiment are gathered as data or information which can then be placed into graphs and data tables. Once this data is gathered, a **conclusion** is determined.

Lesson Checkpoint: *What are the steps of the Scientific Method?*

Scientific Equipment

During the experiment many kinds of equipment are used. Some pieces such as **graduated cylinders** are used for measuring fluids and others such as the **balance** determine mass. Other pieces of glassware include **beakers**, **flasks** and **test tubes**. Clamps and ring stands are often used together with **Bunsen burners** when heat is needed.



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Safety F

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glassware poses many potential dangers. Students should learn about safety equipment such as **eye goggles**, **eye washes**, **fire blankets** and **fire extinguishers**. In addition, while working in the lab, students should be aware of laboratory safety rules as well as familiar with the many safety symbols that often appear in the instructions that are printed for lab activity.

Lesson Checkpoint:

What safety accessory should be worn while working in the lab?