The Nature of Science

"If we don't have curiosity, we don't have science!"
- Gertrude Elion, inventor

In this unit, we will address the following Maine Learning Results for science and technology:

- B1 (a – f): Students plan, conduct, analyze data from, and communicate results of investigations, including simple experiments.
- C1 (a – c). Students describe how scientists use varied and systematic approaches to investigations that may lead to further investigations.
- C2b. Explain how constraints and consequences impact scientific inquiry and technological design.

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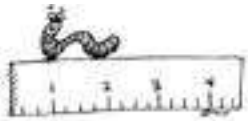
Key Terms

metric units:	metric prefixes:	scientific method:
meter	micro-	observation
liter	milli-	inference
gram	centi-	opinion
	deci-	hypothesis
	deka-	experiment
other useful words	hekto-	control
meniscus	kilo-	independent variable
graduated cylinder		dependent variable
x and y axes		



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Key Skills

> Use a ruler to measure length.
> Use a graduated cylinder to measure liquid volume.
> Explain why most nations use the metric system of measurement.
> Convert measurements from one unit to another
> Make observations, inferences, and opinions. Tell the difference between them.
> Conduct and write up a scientific experiment.
> Identify controls, independent and dependent variables.
> Explain the role of controls and variables in an experiment.
> Graph data in a useful way.