

How is scientific knowledge created and communicated?

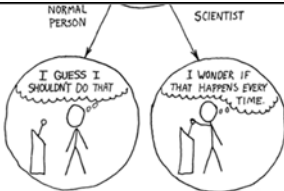
- Scientific inquiry is a thoughtful and coordinated attempt to search out, describe, explain and predict natural phenomena.
- Scientific literacy includes the ability to read, write, discuss and present coherent ideas about science
- Scientists use a variety of processes to answer scientific questions

Key Vocabulary	Assignments	Due
Biologist	#1 - Get your lab safety sheet signed and complete your student parent contact sheet. Turn both sheets in.	
Biology		
Control Group		
Data		
Dependent Variable	#2 - A hypothesis is a statement that attempts to explain an observation. (Pages 14-20 in Modern Biology)	Due
Environment	Answer the following questions	
Experimental Group	1. How does an inference differ from a hypothesis?	
Hypothesis	2. Enumerate the steps of the scientific method using specific examples from the reading.	
Independent Variable	3. What is the relationship between a hypothesis and data?	
Inference	4. Why is there no single scientific method?	
Inquiry		
Judgment		
Law (Scientific)		
Observation	#3 - For 10 extra work points	<u>Due By</u>
Organism	Read the Science News Article “Leashing the Rattlesnake” on my website or via ProQuest. Answer the questions on the sheet.	
Science		
Theory		

The password to open files downloaded from my website is always: **science**



The Nature of Science

Process	Data	Observations	
A goal-directed, series of actions or steps.	Information collected from observations and experiments		
The Scientific Method		Hypothesis	
The scientific method is a process for investigating phenomena, acquiring new knowledge, or correcting and combining previous knowledge.		Science is a systematic process that builds and organizes knowledge in the form of testable explanations and predictions about the universe.	
Variables	Independent Variable	Dependent Variable	
	An independent variable is usually the variable you have the ability to manipulate. It is usually the factor that you think will affect the dependent variable.		
Inquiry	Theory	Law	
the act of asking for information			
Experimental Group		Control Group	Experiment
			An orderly procedure carried out with the goal of verifying, refuting, or establishing the validity of a hypothesis.
		Why is creating models important to science?	