

How is scientific knowledge created and communicated?

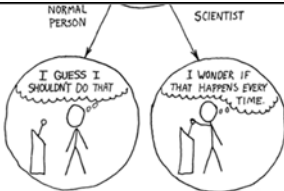
- Scientific inquiry is a thoughtful and coordinated attempt to search out, describe, explain and predict natural phenomena.
- Scientific literacy includes the ability to read, write, discuss and present coherent ideas about science
- Scientists use a variety of processes to answer scientific questions

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 16-19 - skip page 18) Answer the following questions <ol style="list-style-type: none"> 1. How does a value judgment differ from data? 2. Enumerate (number) the steps of the scientific method using specific examples from class. 3. What is the relationship between a hypothesis and data? 	
Environment		
Experimental Group		
Hypothesis		
Independent Variable		
Inquiry		
Judgment	#3 - For 5 extra work points	<u>Due By</u>
Observation		Define each of the key vocabulary words on this sheet using language a human would understand (not that junk that you get when you get when you copy the first thing that pops up in Google).
Organism		
Science		
Theory	#3 - For 10 extra work points	<u>Due By</u>
Law (Scientific)		Read the Science News Article “Leashing the Rattlesnake” on my website or via ProQuest. Answer the questions on the sheet.

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		
	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.	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?	