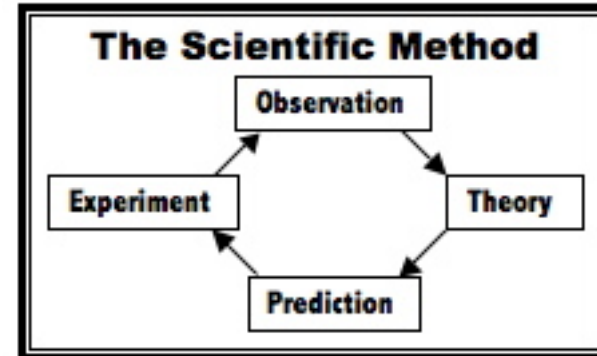# What is Physics?

Problem Set (due next time)
Ch 1 - 7,11,15,17

Lecture Outline
1. The Goal of Physics
2. The Scientific Method
   a. Observation
   b. Theory
   c. Prediction
   d. Experiment

The Scientific Method

Observation

Experiment

Theory

Prediction

Metric Prefix Pop Quiz!

prefix	name	power
		10^{-6}
	milli	
c	centi	10^{-2}
		10^{3}
M		
		10^{9}

Example 1: Convert 100 miles to kilometers.

Work in pairs.
1. Take the last three digits of your student ID number and put a decimal point after the last digit.
2. Multiply your number by your partner's.
3. Round the result off to six significant figures, then five, four, three, two, and finally one.

Work in pairs.
1. Take the last two digits of your student ID number and multiply by the last four digits of your partner's.
2. Round the result off to the correct number of significant figures.

Work in pairs.
1. Take the last two digits of your student ID number and add it to the last four digits of your partner's student ID number.
2. Round off to the correct number of significant figures.

Lecture 01 - Summary

Physics seeks to understand what the universe is made of and how the parts interact.

Scientific Method
1. Metric Prefixes
2. Converting Units
3. Significant Figures

Focus on laws and reasoning not formulas.