

Physical Science

NOS 1

Introduction: Scientific Inquiry

1) Ask questions

- observe
- infer

2) Develop a hypothesis

- predict

3) Test hypothesis

- design an experiment
- collect data (qualitative or quantitative)
- record observations

4) Analyze results

- graph
- classify

5) Draw a conclusion

6) Communicate results

Scientific Law

vs.

Scientific Theory

* a rule that describes a repeatable pattern

What will happen...




* an explanation of events based on many investigations

Why something happened...

NOS 2 Measurement + Tools

A description reports what you see while an explanation requires your interpretation.

"SI" International System of Units

	Mass	Length	Capacity
kilo	kilogram  kg	kilometer km	
hecto			
deka			
UNIT	gram  g	meter m	liter L
deci			
centi		centimeter cm	
milli	milligram  mg	millimeter mm	milliliter mL

Scientific Notation shows very large or very small numbers.

$$12,600,000 = 1.26 \times 10^7$$

The decimal is here and moves seven places left to after the first digit.

$$0.000046 = 4.6 \times 10^{-5}$$

The decimal is here and must move five places right to after the first digit (not zero). The negative reflects that the number is small.

Percent Error $\frac{\text{Your answer} - \text{accepted value}}{\text{accepted value}} \times 100$