

I. The Scientific Method

Refer to handout of notes:

1. hypothesis
2. What sets science (ex: auto engineering) apart from mere hypothetico-deductive reasoning (ex: auto mechanics)?
3. natural law vs. theory

II. What is Chemistry?

Definition(s):

III. Measurement (Metrics)

Metric system:

1. base units: meter, liter, gram, second, etc.
2. prefixes: pico-, nano-, micro-, milli-, centi-, deci-, etc. and their symbols

IV. Uncertainty and Reliability in Measurement— Refer to homework set for practice reading a measuring device or instrument correctly—meniscus, etc.

V. Significant Figures (Digits)—See mrthaler.net for rules; refer to homework set for practice

- A. Definition:
- B. ~~Atlantic-Pacific Rule~~
- C. Sig figs in calculations

VI. Scientific Notation—See mrthaler.net for rules; refer to homework set for practice.

VII. Dimensional Analysis—See mrthaler.net for rules; refer to homework set for practice.

VIII. Laboratory—Anything from labs is fair game.

- A. Massing by Difference
- B. Metrics and Density