

Announcements

To join clicker to class today
(Clickers with LCD display
join automatically):

- Turn on the Clicker (the red LED comes on).
- Push "Join" button followed by "20" followed by the "Send" button (switches to flashing green LED if successful).

- Get your clicker registered ASAP. See web site for instructions.

- Sign up for e-mail discussion list. Instructions on web site.

- You should have downloaded the first reading assignment/homework from web site (username: chem10507, password: ---get password from classmates or instructor---).

- Safety goggles required for lab available from Bookstore and the Chemistry Club (\$4 ea outside class before lecture next week).

Review

- Course overview
- A little about study strategies
- Web Site has:
 - homework • answer keys
 - study suggestions and other useful links
- states of matter (solid, liquid, gas + micro and macro view)
- Mixtures (separable by physical processes - filtration and evaporation/distillation).
- Pure substances (not separable into components by physical means).

Chang Figure 1.5

Properties of Matter

Physical-

a characteristic of a substance that can be observed without changing it into another substance.

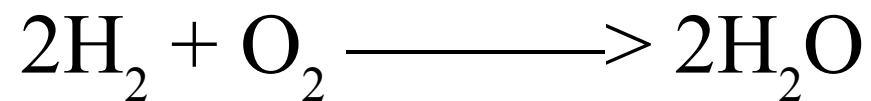
- Density
- Luster
- Hardness
- Color
- Boiling Point
- Melting Point

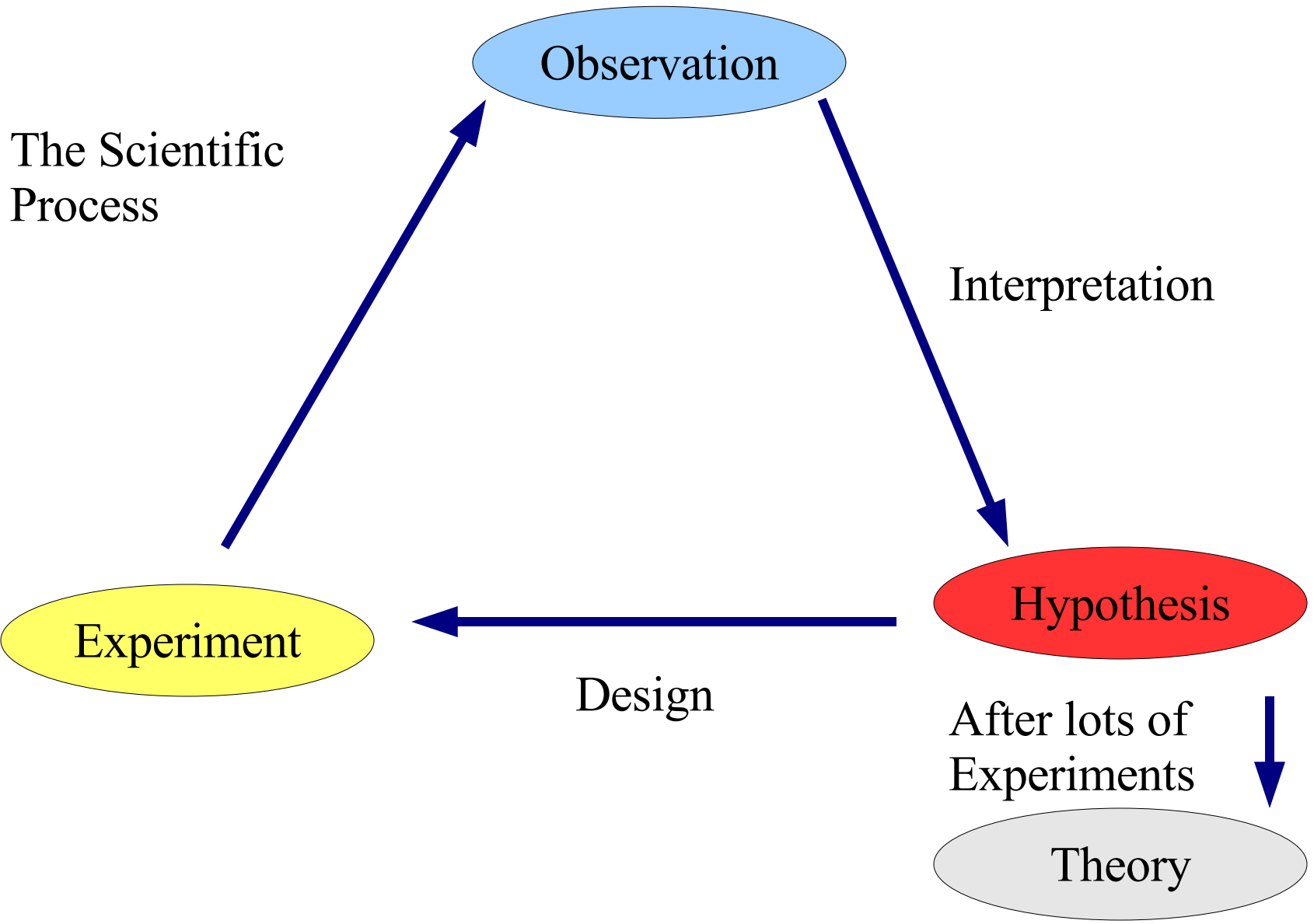
Chemical-

a characteristic of a substance that can be observed only through a chemical reaction including the substance.

- Burning of fuels.
- Dissolution of statues in acid rain

Chang P. 7 Marginal Figure





Chang Figure 7.2

Chang Figure 7.1

ν =frequency λ = wavelength

Double Slit Diffraction

Seeing Diffraction With Your Hand

Frequency vs. Wavelength of Electromagnetic Radiation

Chang Figure 7.3

- $\nu = c/\lambda$, $c = 3.00 \times 10^8 \text{ ms}^{-1}$