

Reflection (we're leaving this out officially from the lesson study, though it will be done before refraction)

- Using a small mirror, can you position the mirror to see your whole body? As you travel away from a mirror, can you see more of yourself?
- How tall is your image in a full length mirror?
- Lab – push pins and mirrors

Refraction

- Initial Notes!
- Catch and throw activity (analogy)
  - $A \rightarrow B$  (like a vacuum)
  - $A \rightarrow B \rightarrow C \rightarrow D$  (light is absorbed and re-emitted as it travels through a medium – that's why it "slows down" otherwise it's going the speed of light between the molecules)
- Roller-skate analogy
  - When you come in at an angle changing medium (pavement to gravel), one roller skate will slow down before the other, thus bending your motion.
- Formative Assessment (of some kind)
- Lab: pushpins and semicircular dishes of varying  $n$ 
  - Use polar graph paper
  - Mediums could include: water (1.33), corn syrup, mineral oil, ethyl alcohol (1.36)
- Physics By Inquiry refraction practice (pg 626)
- Optical Device Extraordinaire Mazes (ODE Maze)