Optics: Objectives and Vocabulary

By referring to the various handouts, notes, lab activities and homework covered during this unit, then at the end of this unit of study, each student should be able to:

1. Explain what 'optics' is the study of.
2. Explain polarized light, fiber optics, and lasers and how they're used in common devices like sunglasses, CD and DVD players, and endoscopes.
3. Measure angles of rays of light reflected from mirrors.
4. Explain the law of reflection.
5. Know how light is reflected and refracted with different shape lenses and mirrors.
6. Explain which types of images are able to be focused and projected, and the types of mirrors and lenses that can do it.
7. Know what nearsightedness and farsightedness are, and how they are corrected.
8. Know what optical elements are in various optical devices like telescopes, microscopes and binoculars.

Vocabulary:

Optics	Law of reflection	Refraction
Polarized light	Parallel	Concave lens
Laser	Concave mirror	Convex lens
Fiber optics	Convex mirror	Converge
Total internal reflection	Real image	Diverge
Endoscope	Virtual image	Nearsightedness
Reflection	Real focus	Farsightedness
Plane mirror	Virtual focus	Diffraction
Normal	Focal length	Diffraction grating
	Focal point	