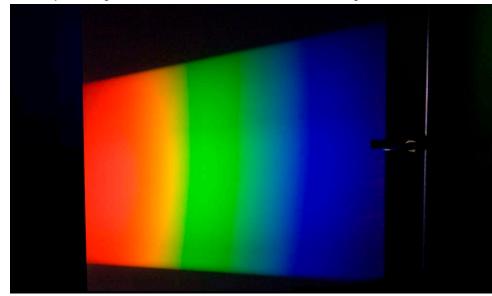
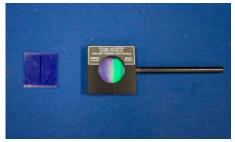
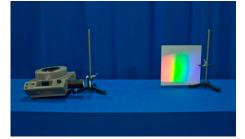
Electricity and Magnetism

Electromagnetic Radiation

Electromagnetic Spectrum







Concept:

A diffraction grating is used to clearly disperse white light into its spectral components.

Equipment:

- Slide Projector
- Slotted Slide
- Pasco Diffraction Grating 610 lines/mm
- (2) Small Ring Stands
- (2) Small clamps
- White Screen

Procedure:

- 1. Verify that the slotted slide is in the slide projector and the diffraction grating is facing the slide projector lens.
- 2. Turn on the slide projector and move the white screen so that the color spectrum is spread along its length.
- 3. Turn of the lights and view the complete visible electromagnetic spectrum.
- 4. Turn on the lights and turn the slide projector to its "Fan" setting, letting it run until the bulb cools down.

Notes and Extras:

- To best focus the spectrum on the white screen:
 - 1. After step 2 above, without moving the grating, rotate the slide projector so that it is directly aimed at the white screen.
 - 2. Adjust the slide projector focus so that the slit is well focused on the white screen.
 - 3. Rotate the slide projector back so that it points again through the diffraction grating.