

Single-slit diffraction *Dynamics first* Equipment

List

- white board or large sheet of paper with markers

Special Instructions

Handouts:

- 6 copies (each in a plastic protector) of two different diffraction patterns produced by light incident on single slits of different widths (See handouts.)
- 6 color copies (each in a plastic protector) of diffraction patterns produced when red, green, blue, and white light are each incident upon the same single slit (See (See handouts.)
- 1 figure (in a plastic protector) that illustrates the mixing of colored light (See handouts.)
- 6 envelopes, each containing:
 - 1 graph of a sinusoidal curve (in a plastic protector), with the horizontal axis marked and the vertical axis labeled and marked (See the Handouts section in this guide.)
 - 3 transparencies of sinusoidal curves identical to those described above with only the horizontal axis marked. The sinusoidal curves should be traced with a permanent marker, one in red, one in blue, and one in green. (See handouts.)