

Wave optics

Develop Infographics based on the following titles with a neat pencil diagram and label the parts correctly.



Here are the titles of diagrams provided in the "Wave Optics" textbook based on the document content:

1. **Figure 10.1 (a):** A diverging spherical wave emanating from a point source.
2. **Figure 10.1 (b):** A plane wave, where a small portion of the spherical wave can be approximated by a plane wave.
3. **Figure 10.2:** Spherical wavefront construction using Huygens principle.
4. **Figure 10.3:** Huygens geometrical construction for a plane wave.
5. **Figure 10.4:** Refraction of a plane wave by a plane surface.
6. **Figure 10.5:** Refraction of a plane wave incident on a rarer medium.
7. **Figure 10.6:** Reflection of a plane wave by a plane surface.
8. **Figure 10.7 (a):** Refraction of a plane wave by a thin prism.
9. **Figure 10.7 (b):** Refraction of a plane wave by a convex lens.
10. **Figure 10.7 (c):** Reflection of a plane wave by a concave mirror.
11. **Figure 10.15:** The geometry of path differences for diffraction by a single slit.
12. **Figure 10.16:** Intensity distribution and photograph of fringes due to diffraction at a single slit.
13. **Figure 10.18:** Holding two blades to form a single slit.
14. **Figure 10.19:** A parallel beam of light incident on a convex lens resulting in diffraction effects.
15. **Figure 10.20:** Real image formed by the objective lens of a microscope.
16. **Figure 10.21 (a):** Displacement of a string at two different times for a wave propagating in the $+x$ direction.
17. **Figure 10.21 (b):** Time variation of the displacement at $x = 0$ for a sinusoidal wave.