

# Telescopes

1. Refracting telescopes focus light on the other side of the lens.
2. Because lens vertically inverts image, a second lens has to reverse the image back the way it was.
3. Different colors of light will focus at different points; the focus of blue is different than the focus of red.
4. Telescope cannot be in focus for all colors at the same time, which is a disadvantage.
5. Most modern telescopes are reflecting because of this limitation.
6. The color deficiency is known as chromatic aberration.
7. Cost is also a factor because a reflecting telescope is cheaper.
8. It is easier to support a large mirror than a lens; a lens could only be supported by the rim of it, while a mirror can be supported in the back.
9. The law of reflection says that when light hits a mirror, the incident angle = reflected angle.
10. A concave mirror curves inward and a convex mirror curves outward.
11. A concave mirror on a reflecting would leave a image upside down by itself.
12. Since focus is in front of mirror, it is an inherent problem.