Glossary

converging lens a convex lens in which light rays that enter it parallel to its axis converge at a single point on the opposite side

converging mirror a concave mirror in which light rays that strike it parallel to its axis converge at one or more points along the axis

corner reflector an object consisting of two mutually perpendicular reflecting surfaces, so that the light that enters is reflected back exactly parallel to the direction from which it came

critical angle incident angle that produces an angle of refraction of 90^{o}

dispersion spreading of white light into its full spectrum of wavelengths

diverging lens a concave lens in which light rays that enter it parallel to its axis bend away (diverge) from its axis

diverging mirror a convex mirror in which light rays that strike it parallel to its axis bend away (diverge) from its axis

fiber optics transmission of light down fibers of plastic or glass, applying the principle of total internal reflection

focal length distance from the center of a lens or curved mirror to its focal point

focal point for a converging lens or mirror, the point at which converging light rays cross; for a diverging lens or mirror, the point from which diverging light rays appear to originate

geometric optics part of optics dealing with the ray aspect of light

index of refraction for a material, the ratio of the speed of light in vacuum to that in the material

law of reflection angle of reflection equals the angle of incidence

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magnification ratio of image height to object height

mirror smooth surface that reflects light at specific angles, forming an image of the person or object in front of it

power inverse of focal length

rainbow dispersion of sunlight into a continuous distribution of colors according to wavelength, produced by the refraction and reflection of sunlight by water droplets in the sky

ray straight line that originates at some point

real image image that can be projected

refraction changing of a light ray's direction when it passes through variations in matter

virtual image image that cannot be projected

zircon natural gemstone with a large index of refraction