

12 Major Differences Between Mirrors and Lenses

S.No.	Criterion	Mirrors	Lenses
1.	Optical Law	Law of Reflection	Law of Refraction
2.	Types	<ul style="list-style-type: none"> • Concave • Convex • Plane 	<ul style="list-style-type: none"> • Biconvex • Plano-convex • Concave-convex • Biconcave • Plano-concave • Convex-concave
3.	Manufacture	Glass or metal	Glass or plastic
4.	Curvature	Plane or Curved	Only Curved
5.	Focal Point	No focal point for the plane mirror. Only one focal point for the spherical mirror.	2 focal points; F and 2F.
6.	Formula	Image formation. $1/f = 1/v + 1/u$ f = Focal Length v = Distance of Image u = Distance of Object	Image formation. $1/f = 1/v + 1/u$ f = Focal Length v = Distance of Image u = Distance of Object
7.	Surface	Only one surface to reflect light.	Two surfaces where either one or both surfaces can reflect light.
8.	Image Formation	Virtual or real images	Real images

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9.	Light Path	Reverse direction for light rays	Bends light rays
10.	Dispersion	Not used for color separation	Used for color separation or chromatic aberration
11.	Surface Coating	Uses a reflective coating, made of silver or aluminium on one side of the glass.	Do not apply any type of reflective coating.
12.	Usage	Looking glass, home decors, projectors, shaving mirrors, dentist mirrors, torchlights, solar cookers, periscopes, kaleidoscopes, and automobiles	Telescopes, binoculars, cameras, magnifying glasses, eyeglasses, projectors, and solar glasses