

## Topic Page: [Image](#)

Definition: **image** from *Philip's Encyclopedia*

In optics, representation of an object produced when rays of light from the object are either reflected by a mirror or refracted by a lens. A **real** image can be projected onto a screen and recorded in a photograph; a **virtual** image, such as that produced by a plane mirror, cannot.

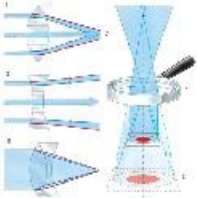


Image from: [A convex lens \(1\) focuses light on a single point... in Philip's Encyclopedia](#)

Summary Article: **image**

From *The Columbia Encyclopedia*

in optics, likeness or counterpart of an object produced when rays of light coming from that object are reflected from a mirror or are refracted by a lens.

An image of an object is also formed when this light passes through a very small opening like that of a pinhole camera (which has no lens). Images are classed as real or virtual. A real image occurs when the rays of light from the object actually converge to form an image and can be seen on a screen placed at the point of convergence. For example, the image produced by the refraction of light rays by a convex lens (when the distance between the object and the lens is greater than the focal length of the lens) is real, and it appears on the side of the lens opposite the one on which the object is present. On the other hand, a virtual image occurs when the prolongations of the light rays converge to form an image, but the light rays themselves do not reach the point of convergence. Thus a virtual image cannot be seen on a screen. The image in a plane mirror is virtual. It appears to be behind the mirror, at a distance equal to that of the object in front, although the rays of light from the object do not penetrate the mirror but are reflected from it. Images of the same size as the object are sometimes produced, as in the case of the plane mirror, but in other cases they are larger, and in still others, smaller. They are sometimes erect and in other cases are inverted. The size of the image and whether it is erect or inverted, real or virtual, depend on the distance of the object from the lens or mirror relative to the focal length and on the type of lens or mirror (plane, convex, or concave) employed.

[APA](#)

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image. (2018). In P. Lagasse, & Columbia University, *The Columbia encyclopedia* (8th ed.). New York, NY: Columbia University Press. Retrieved from <https://search.credoreference.com/content/topic/image>

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*The Columbia Encyclopedia*, © Columbia University Press 2018



## APA

image. (2018). In P. Lagasse, & Columbia University, *The Columbia encyclopedia* (8th ed.). New York, NY: Columbia University Press. Retrieved from <https://search.credoreference.com/content/topic/image>

## Chicago

"image." In *The Columbia Encyclopedia*, by Paul Lagasse, and Columbia University. 8th ed. Columbia University Press, 2018. <https://search.credoreference.com/content/topic/image>

## Harvard

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## MLA

"image." *The Columbia Encyclopedia*, Paul Lagasse, and Columbia University, Columbia University Press, 8th edition, 2018. *Credo Reference*, <https://search.credoreference.com/content/topic/image>. Accessed 18 Sep. 2019.