

# Law of Reflection

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Jean Brainard, Ph.D.

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## AUTHOR

Jean Brainard, Ph.D.

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# CHAPTER 1

# Law of Reflection

## Reflected Light and Images

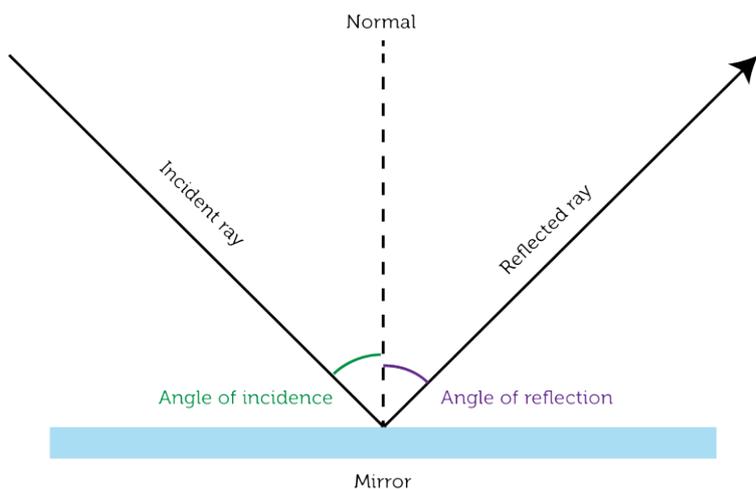
**Reflection** is one of several ways that light can interact with matter. Light reflects off surfaces such as mirrors that do not transmit or absorb light. When light is reflected from a smooth surface, it may form an image. An **image** is a copy of an object that is formed by reflected (or refracted) light.

**Q:** Is an image an actual object? If not, what is it?

**A:** No, an image isn't an actual object. It is focused rays of light that make a copy of an object, like a picture projected on a screen.

## Law of Reflection

One thing is true of both regular and diffuse reflection. The angle at which the reflected rays leave the surface is equal to the angle at which the incident rays strike the surface. This is known as the **law of reflection**. The law is illustrated in the **Figure 1.1** and also in this animation: <http://www.physicsclassroom.com/mmedia/optics/lr.cfm>



**FIGURE 1.1**

According to the law of reflection, the angle of reflection always equals the angle of incidence. The angles of both reflected and incident light are measured relative to an imaginary line, called normal, that is perpendicular (at right angles) to the reflective surface.

## Summary

- Reflection is one of several ways that light can interact with matter. When light is reflected from a smooth surface, it may form an image. An image is a copy of an object that is formed by reflected (or refracted) light.
- According to the law of reflection, the angle at which light rays reflect off a surface is equal to the angle at which the incident rays strike the surface.

## References

1. Christopher Auyeung. [Law of reflection](#) . CC BY-NC3.0