

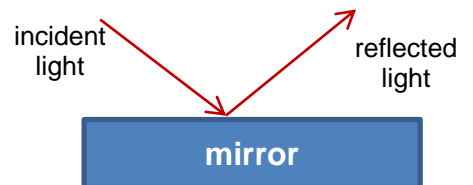
# Pre-Activity Assessment Questions **Answer Key**

1. What is light? - **Answers will vary. Example common answers:**

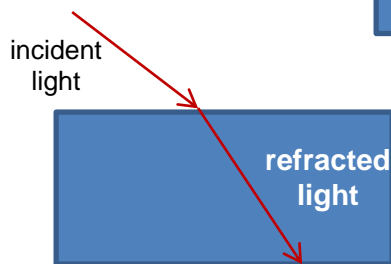
- The reason why we see things.
- An electromagnetic radiation that has frequency and amplitude.
- Travelling very fast ( $3 \times 10^8$  m/s in vacuum).

2. Light has the following behaviors when it is interacting with a certain boundary. For each, draw an example and use arrows to show how the light is behaving. **Answers will vary. Example answers:**

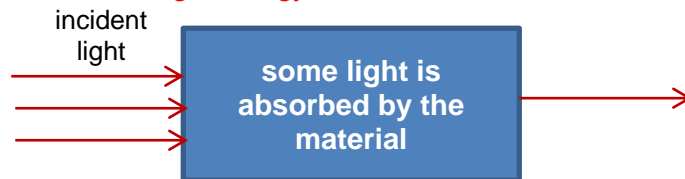
**Reflection** - The bouncing of light when it strikes a boundary between different media through which it cannot pass.



**Refraction** - The bending of light as it passes from one medium to another.



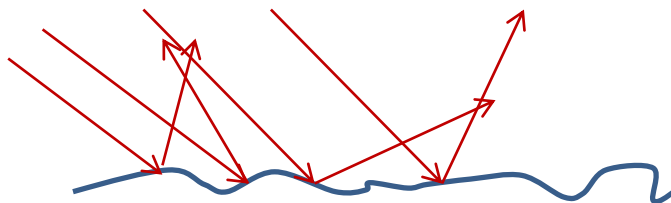
**Absorption** - A process in which light (energy) is transferred to a medium in which it is passing through.



**Transmission** - When light passes through a material and is not absorbed by that material.



**Scattering** - The dispersal of rays of light when the light is reflecting from an unsmooth surface.



3. What is the difference between transparent and invisible?

**Transparent material** allows light to pass through it so that objects behind can be directly seen but the material itself is still visible to the naked eye. On the other hand, **invisible material** allows light to pass through as well, but it is not visible to our eyes.