**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 (3x108 m/s in vacuum).
1. 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.

**mirror**

incident light

reflected

light

incident light

**refracted**

**light**

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.

**some light is absorbed by the material**

incident light

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

incident light

transmitted light

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

1. 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.