**Ray Optics** Vocab: Ray, Transparent, Translucent, Opaque

Light is a **\_\_\_\_\_\_\_\_\_\_\_**; however it is a very small **\_\_\_\_\_\_\_\_\_\_\_**. Isaac Newton had believed that light was a stream of fast moving tiny **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** that travelled in a perfectly **\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_**. He made a set of rules that said how light behaves like tiny particles, this is called the **\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_ \_\_\_\_\_\_\_**.

The particle model of light is not completely accurate but when we look at how light interacts on a large scale it works very well. We can simplify it further by making the streams of particles into rays of light. This will allow us to easily explain how **\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_** work.

**The Three Types of Media**

Any substance light is passing through is called a **\_\_\_\_\_\_\_\_\_\_\_**. There are three types of **\_\_\_\_\_\_\_\_\_\_\_** (plural of **\_\_\_\_\_\_\_\_\_**).

**Transparent**:

**Translucent**:

**Opaque**:

**Shadows**

You can use the ray model to show how shadows are formed. Light will come from a source to strike an object which will cast a shadow on a wall or screen or on the ground.



**Reflection**

All things you can see **\_\_\_\_\_\_\_\_\_\_\_\_\_** light, but they don’t all reflect the same. We can take a microscopic look at the **\_\_\_\_\_\_\_\_\_\_\_\_** of objects to see how they will reflect light.

