**Reflection and Refraction**

**The Law of Reflection**

**Plane Mirrors**

A plane mirror is a \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ mirror. Let’s make a \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ to show how we see images of objects in a mirror.

* Images in a plane mirror are the \_\_\_\_\_\_\_ size as the object
* Images in a plane mirror are the \_\_\_\_\_\_\_ distance from the mirror as the object
* The image in a plane mirror have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Concave Mirrors**

A concave mirror is a mirror that \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_.

Parallel light rays all come to one point called the \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_.

Light rays coming together are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Convex Mirrors**

A convex mirror is a mirror that \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Parallel light rays reflect away from each other.

Light rays going away from each other are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Refraction is:

A good analogy of refraction is pushing a shopping cart down a pathway.

We notice the shopping cart turns \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Light follows the same rules:

* When travelling into a slower material light will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* When travelling into a faster material light will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Lenses**

Lenses are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Light will \_\_\_\_\_\_\_\_\_\_\_\_\_\_ through the glass, causing it to bend from the direction it was going.

**Concave Lenses**

Concave lenses make light rays \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Concave lenses are often used in some types of \_\_\_\_\_\_\_\_\_\_\_\_\_, or used together with other lenses to make \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

*Note:*

**Convex Lenses**

Convex lenses make light rays \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Convex lenses are often used as \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ or used with other lenses in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

*Note:*

Homework: p.197 #1,2,6,7,8,9,10,11

Homework. P.189 #1-6,8,9