**Ray Optics Review**

**Describe the Properties of the Types of Media**

* Transparent
* Translucent
* Opaque

**Shadows**

Use ray diagrams to find the shadow in the two situations





**Reflection**

State the Law of Reflection

**Plane Mirrors**

* The reflected image is (bigger/ same / smaller) size as the object
* The reflected image is a (bigger/ same / smaller) distance than the object from the mirror.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is flipped

**Concave Mirrors**

Light rays \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Draw parallel light rays striking a concave mirror:

Concave mirrors are used for:

**Convex Mirrors**

Light rays \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Draw parallel light rays striking a convex mirror:

Convex Mirrors are used for:

**Refraction**

Draw the light rays showing the refraction that occurs with the bird looking at a fish:

**Concave Lenses**

Light rays \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Draw parallel light rays passing through a concave lens:

* Concave lenses are used for:

**Convex Lenses**

Light rays \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Draw parallel light rays passing through a convex lens:

* Convex lenses are used for:

When light travels into a denser material, it will move slower. What happens to the direction it is travelling?

When light travels into a less dense material, it will move faster. What happens to the direction it is travelling?

Use a Ray Diagram to show how the letter will look using a Pinhole Viewer:

**Waves**

Label the parts of the wave

* 1.
	2.

* 1.
	2.

Name the two different types of waves.

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Jim counts 42 waves occurring in 15 seconds. What is the frequency of the waves?

Jessica is making a wave with a frequency of 35Hz. How many waves is she making each second?

Bob is in a boat. It rises 6m when it travels from the trough to the crest of the water waves he is on. What is the amplitude of the water waves?

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