



CHAPTER 3: LIGHT



SOURCE OF LIGHT

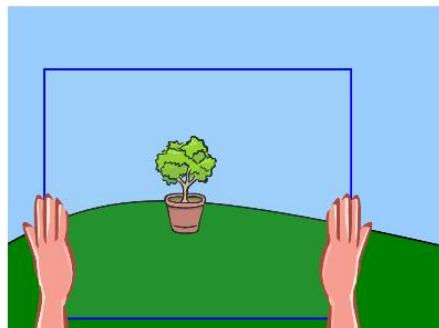
Which of the items below are considered as sources of light?



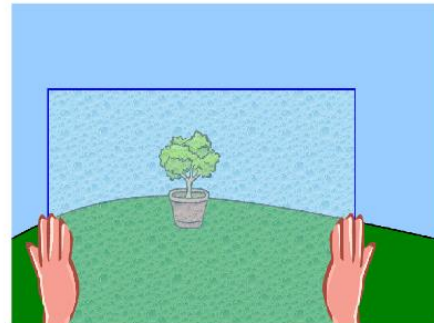
HOW DO WE SEE OBJECTS?

There are three types of objects

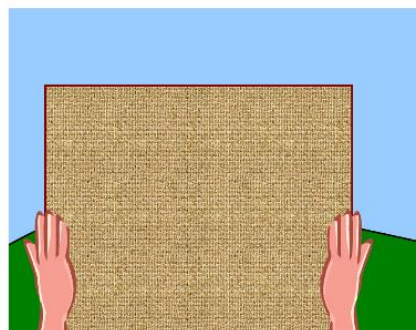
Transparent



Translucent



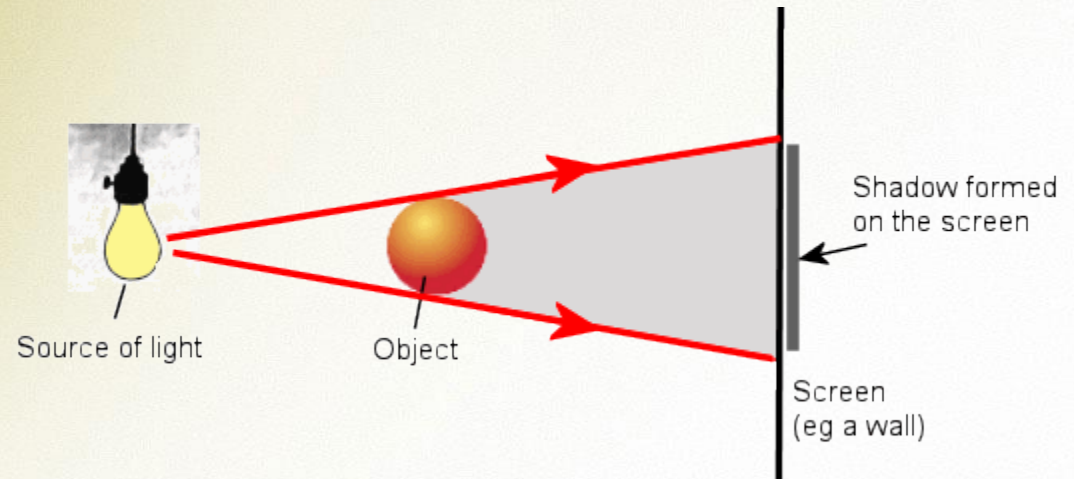
Opaque



SHADOW FORMATION

When an opaque object is put in front of a luminous object a shadow is formed as shown below.

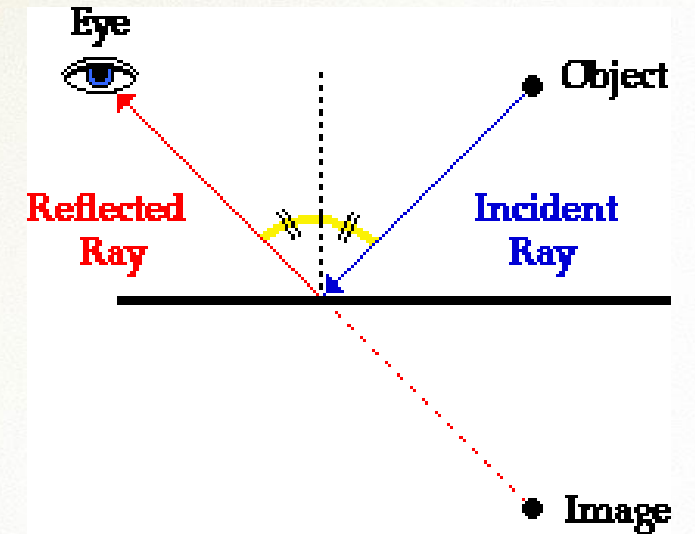
What does this experiment prove?



REFLECTION

When a source of light hits a mirror it will reflect

This means that the light ray bounces off the mirror in a perfect straight line



TRICK QUESTION: IS THE MIRROR TRANSPARENT, TRANSLUCENT OR OPAQUE?



REFLECTION

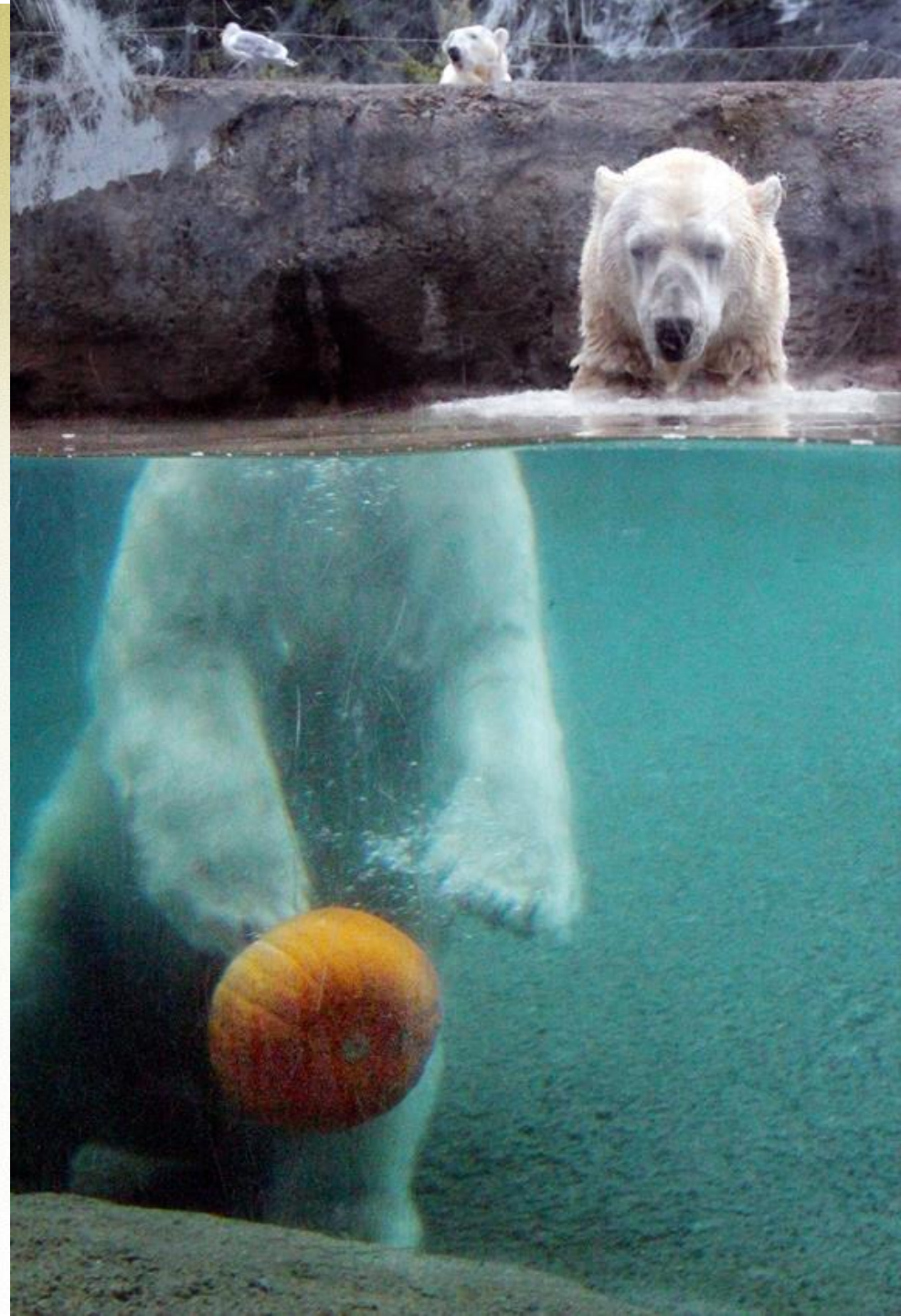
The law of reflection states that the angle of incidence is always equal to the angle of reflection

The mirror works in this way since it is flat, smooth and shiny

IS THIS REAL?

This is a picture of an actual polar bear in a zoo.

Do you notice anything weird?

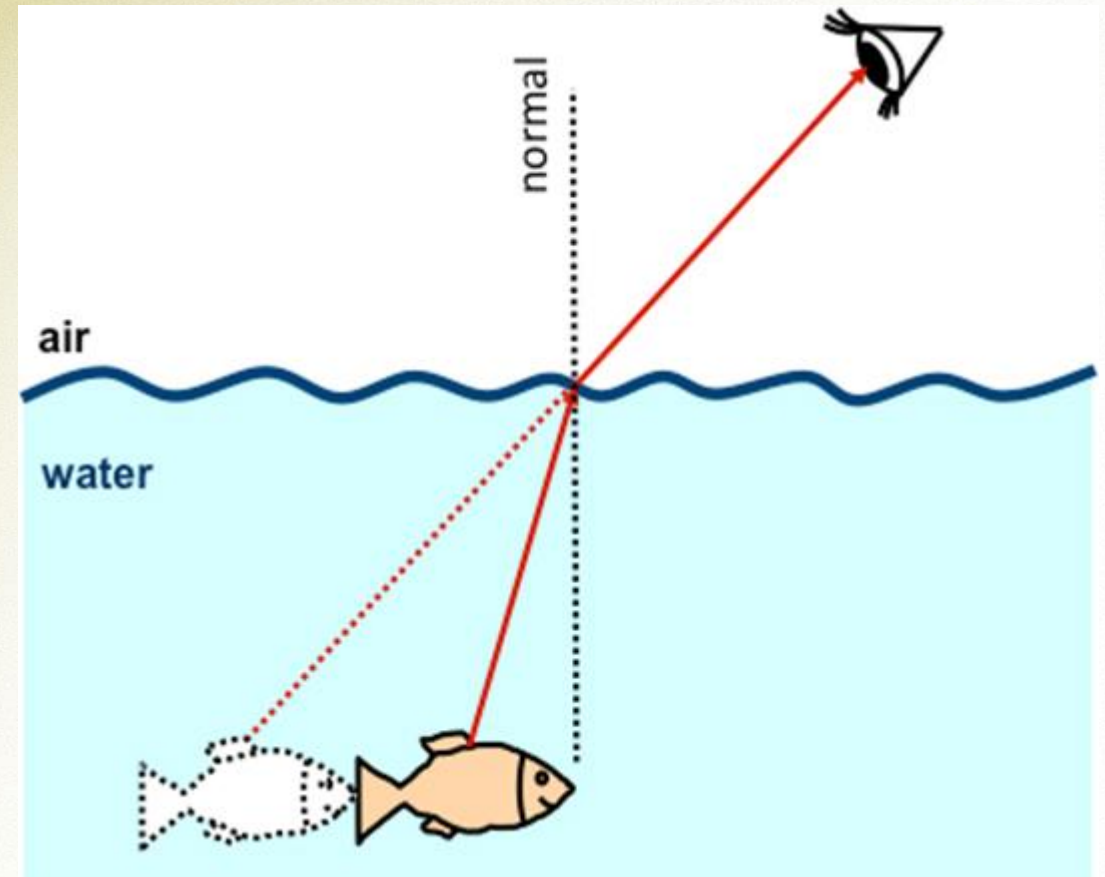


REFRACTION

Refraction is the bending of light as it changes medium

When light travels from an object of high density to an object of lower density it moves away from the normal

When light travels from an object of low density to an object of high density it moves towards the normal



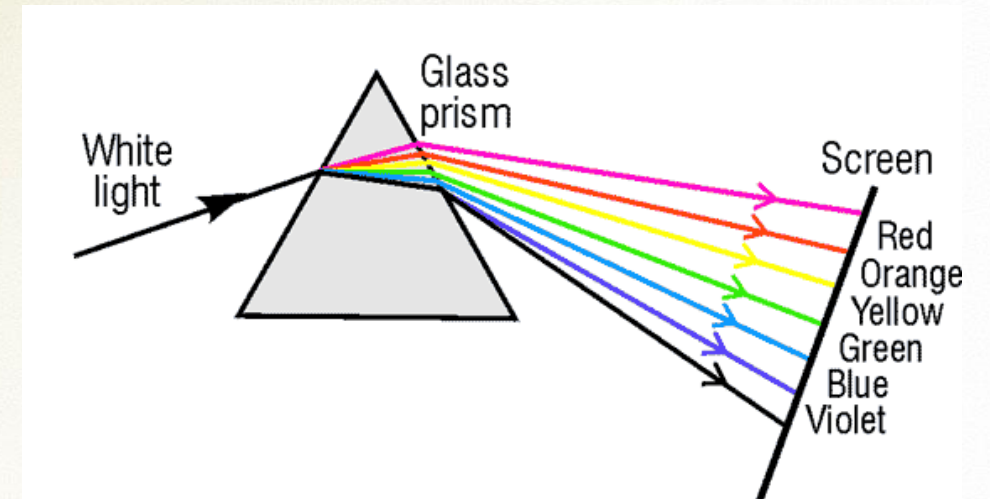
IT'S A RAINBOW

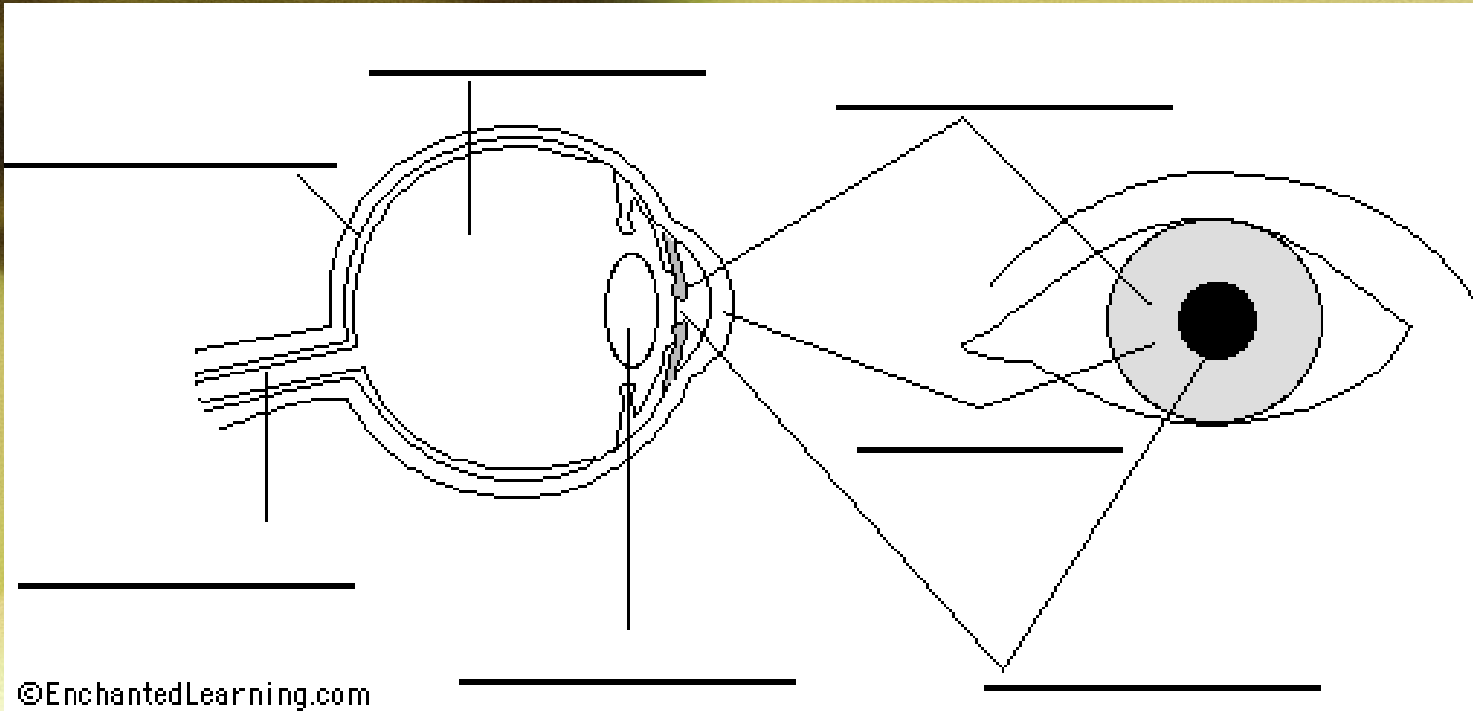
As light passes from air through water/glass it will refract.

If the source of light is white light it will split into 7 colours as it refracts

This is called the spectrum of light

The process which splits white light into 7 colours is called dispersion





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Which part is what?

- Cornea
- Iris
- Pupil
- Lens
- Vitreous Fluid
- Retina
- Optic Nerve

THE HUMAN EYE