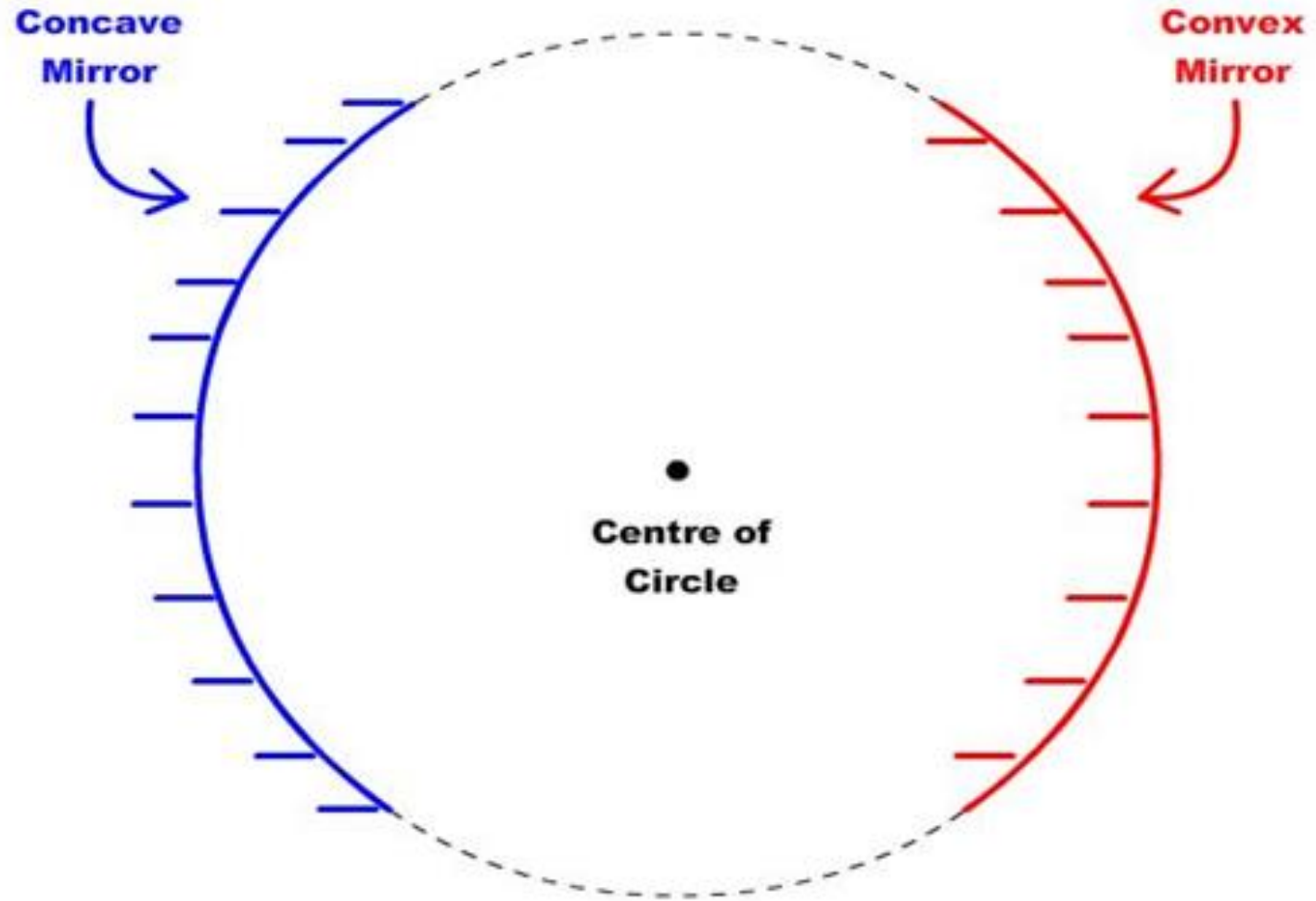


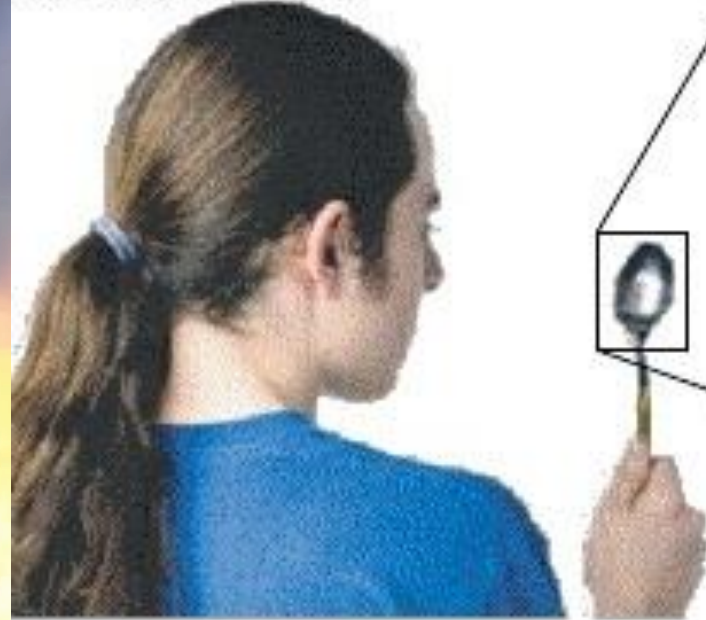


# Curved Mirrors

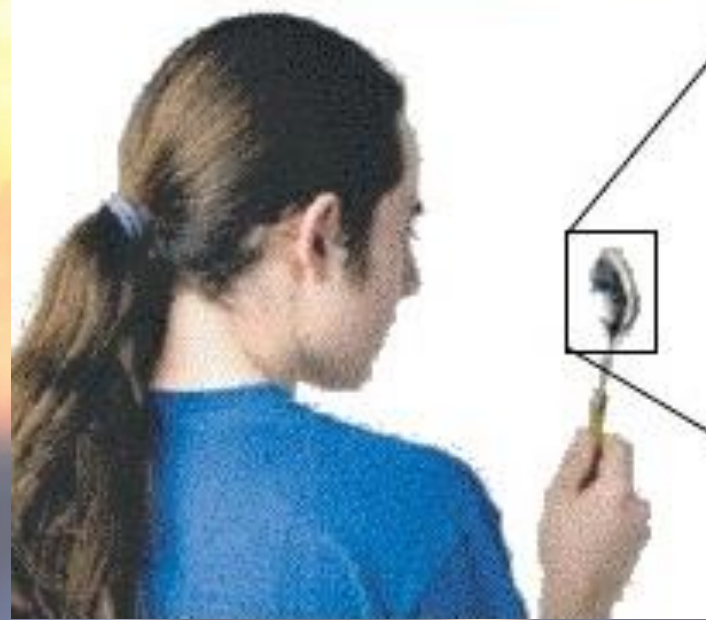
# Curved Mirrors



**Spherical or  
curved mirrors**

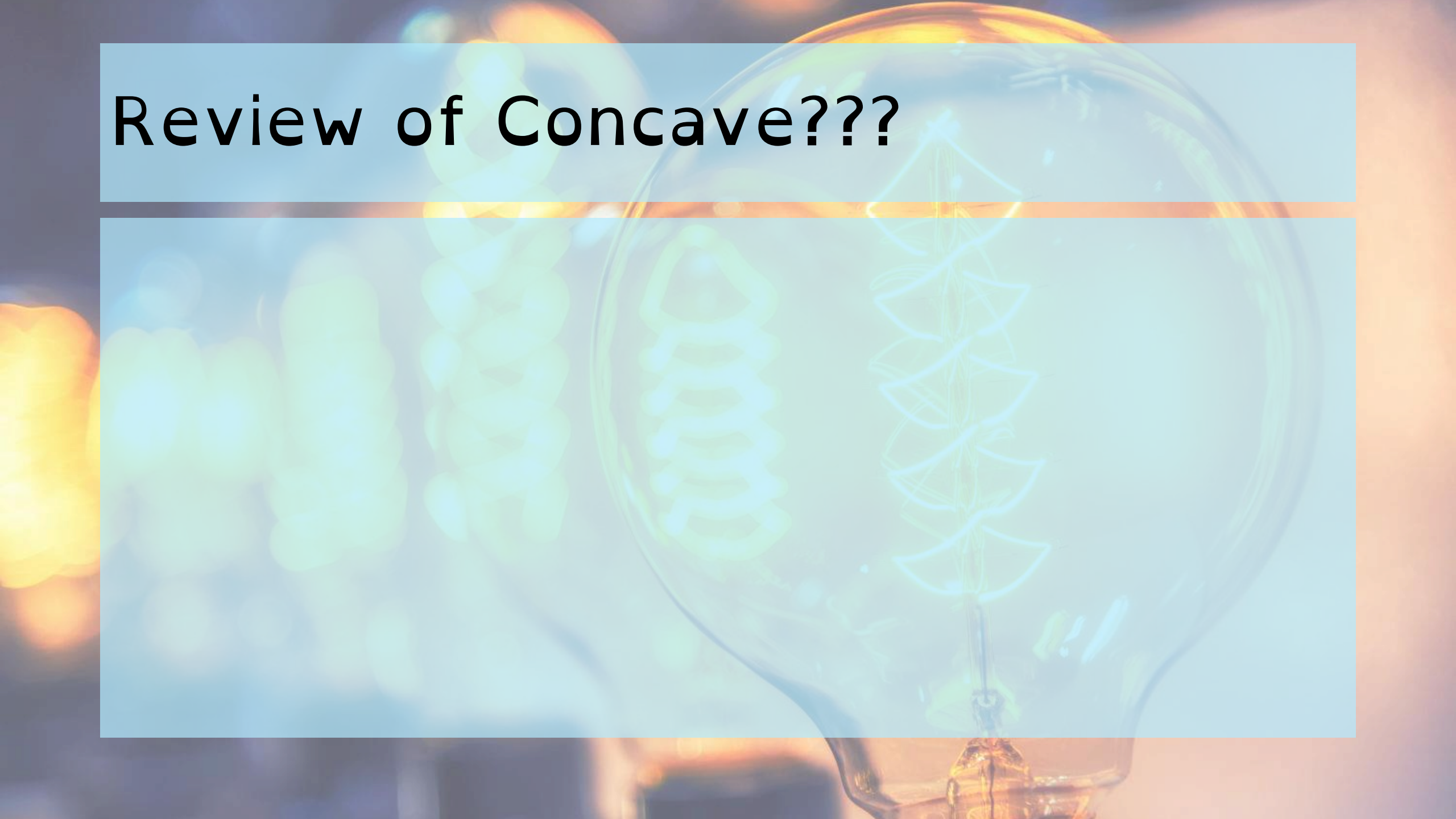


**Convex mirror**



**Concave mirror**

# Review of Concave???

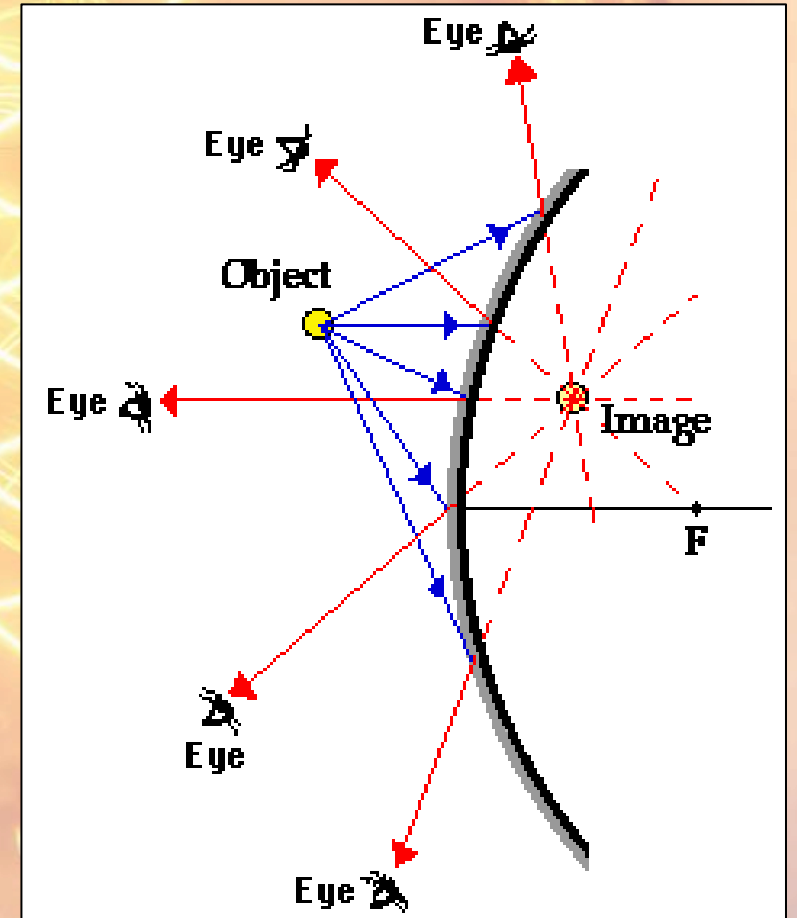




OBJECTS IN MIRROR ARE CLOSER  
THAN THEY APPEAR

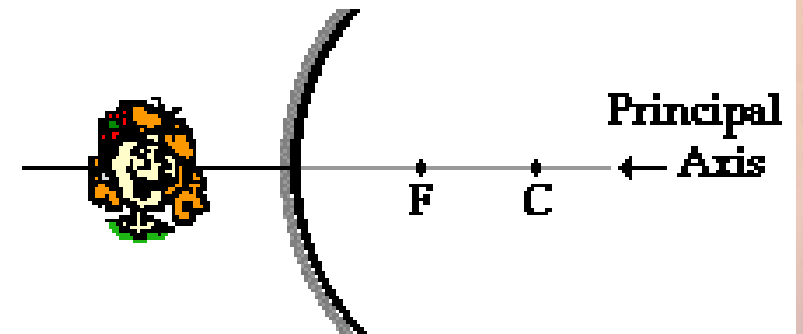
# Convex Mirrors

- A convex mirror is sometimes referred to as a diverging mirror due to the fact that incident light originating from the same point and will reflect off the mirror surface and diverge.
- After reflection, the light rays diverge – they will never intersect on the object side of the mirror.
- convex mirrors produce virtual images that are located somewhere behind the mirror.



# Convex Mirrors

- If the outside of the sphere is silvered such that it can reflect light, then the mirror is said to be *convex*.
- center of that original sphere is known as the center of curvature (C) and the line that passes from the mirror's surface through the sphere's center is known as the principal axis.
- The mirror has a focal point (F) that is located along the principal axis, midway between the mirror's surface and the center of curvature.
- Note that the center of curvature and the focal point are located - *behind the mirror*.



**A Convex Mirror with its  
Negative Focal Length**

# Laws of Reflection

- They are the same as the laws for Concave mirrors... with minor revisions to suit where the focal point is located.
- The revised rules can be stated as follows:
- Any incident ray traveling parallel to the principal axis on the way to a convex mirror will reflect in such a manner that *its extension* will pass through the focal point.
- Any incident ray traveling towards a convex mirror such that *its extension* passes through the focal point will reflect and travel parallel to the principal axis.



# Drawing for Convex Mirrors

- What is the SALT?

