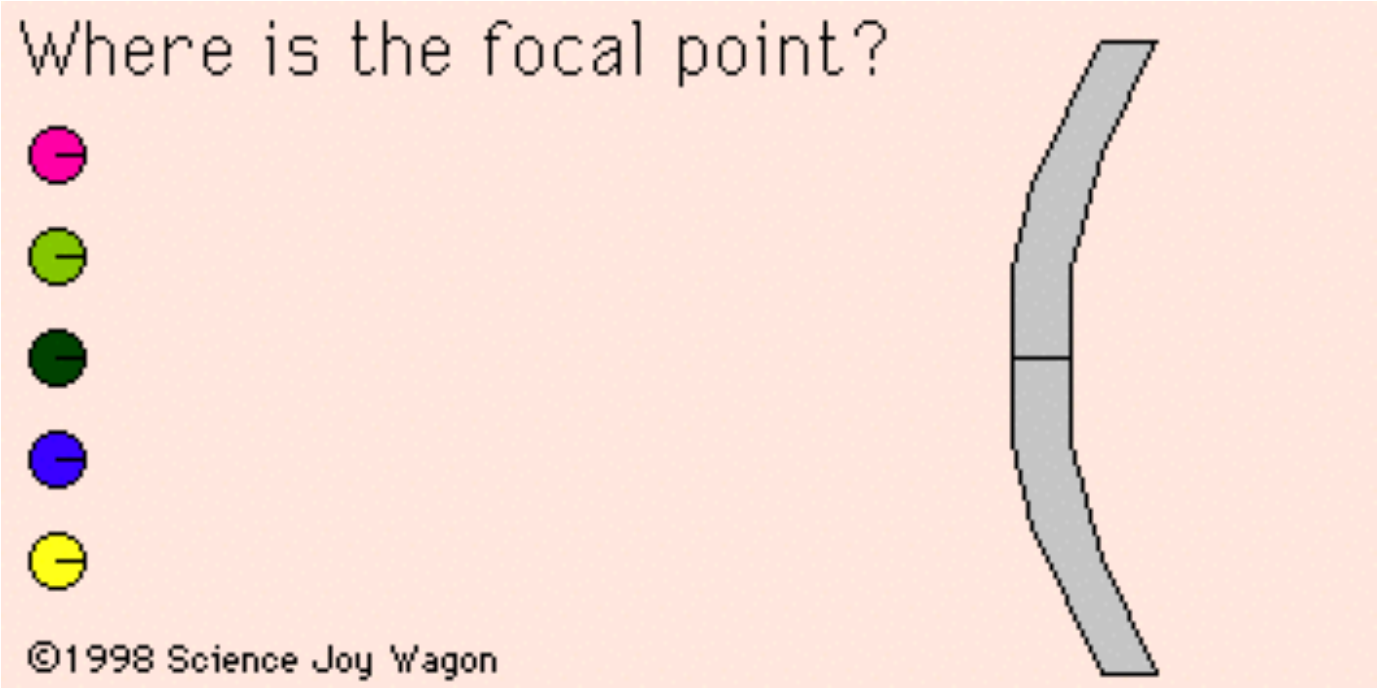
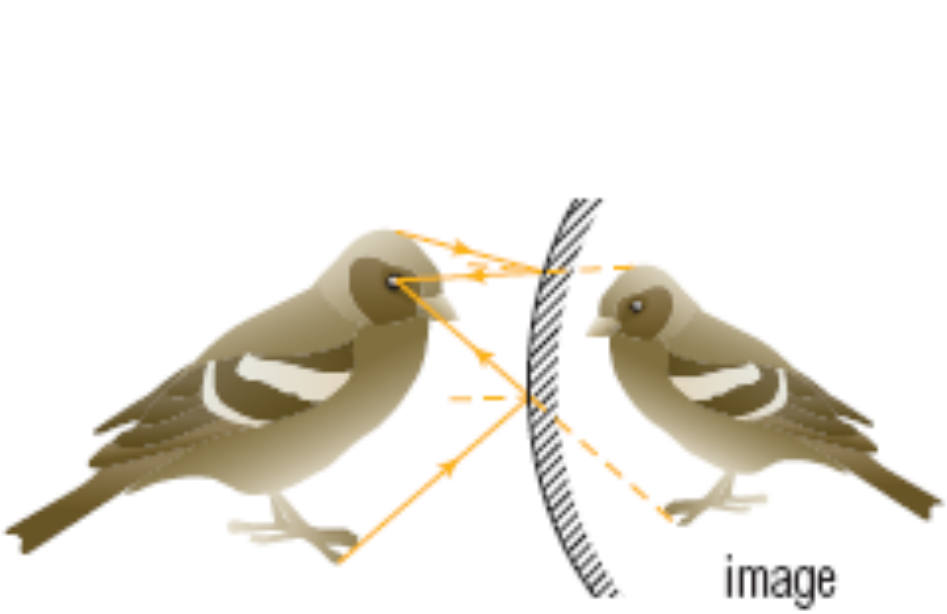
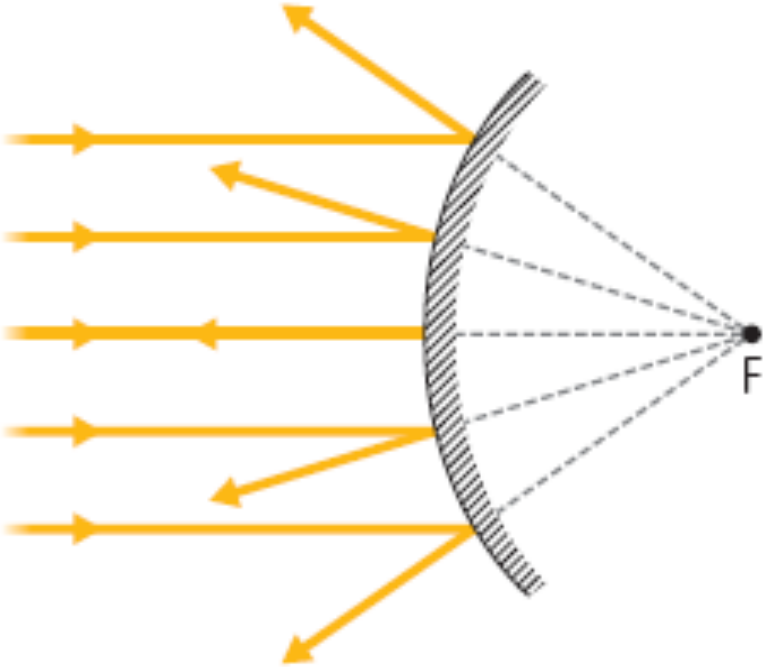
Mirrors 3 – CONVEX Mirrors



Convex Mirrors

- A mirror with a surface curved outward is a **convex mirror**, also called a **diverging mirror**
- **A convex mirror spreads out the rays.**



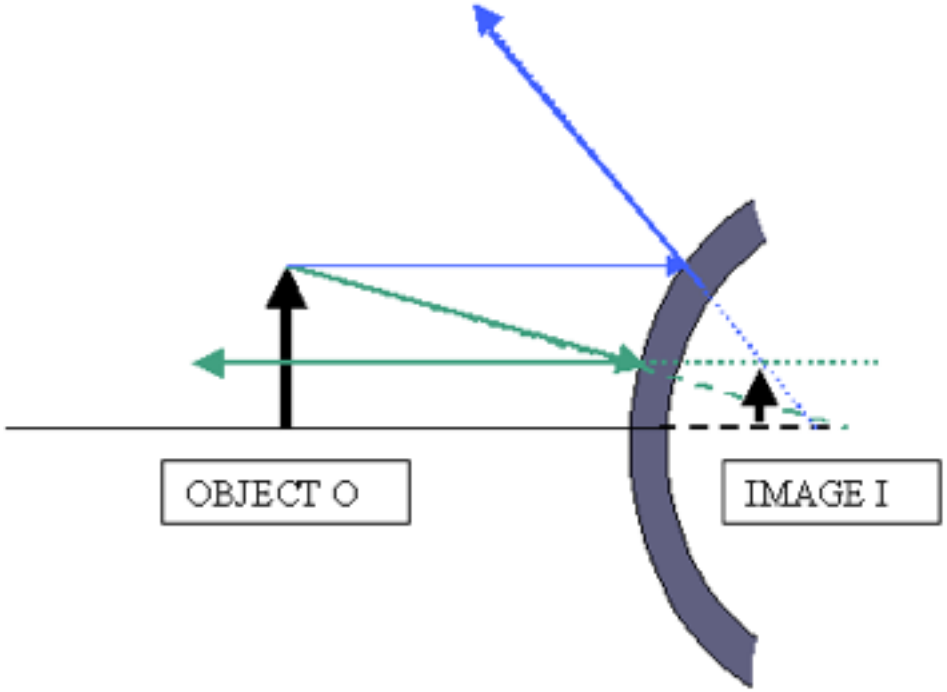


Uses for Convex Mirrors

- Because convex mirrors allow you to see more than plane mirrors, they are often used for security in stores as well as rear-view mirrors in cars.

Images Formed by Convex Mirrors

- **All images in a convex mirror are virtual**.
- The reflected light rays never meet and the image appears to come from behind the mirror.

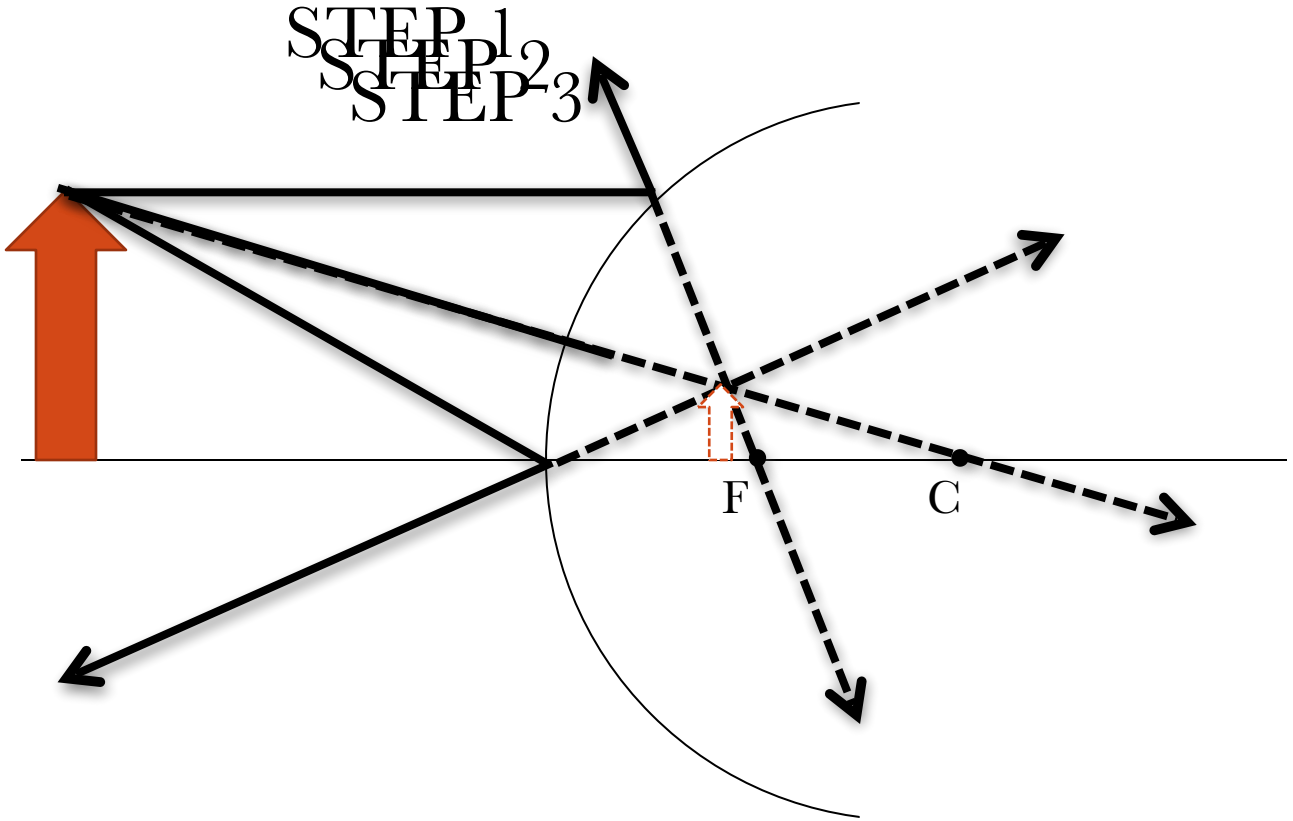


- S- Smaller
- A-Upright
- L- Behind the mirror in front of F
- T- Virtual

Drawing a Convex Mirror Ray Diagram Steps

1. Draw a line from the top of the object parallel to the principle axis to the mirror. Then draw a dotted line from there to the focal point. This line is also drawn as a solid line on the outside of mirror as it moves away from the mirror surface.
2. Draw a line from the top of the object to the center of curvature. Once the line reaches the mirror it becomes dotted.
3. Draw a line from the top of the object to the vertex. The reflected ray will leave the mirror at the same angle as the incident ray angle. Extend the reflected ray as a dotted line behind the mirror The point at which all the lines meet is where the top of the virtual image is located.

Images formed by Convex Mirrors



S = Smaller **A** = Upright **L** = Behind mirror in front of F **T** = Virtual

Curved Mirror Worksheet

- Work on HANDOUT and

- pg 501 1-8