

# Unit 6

## Light Energy

# light energy

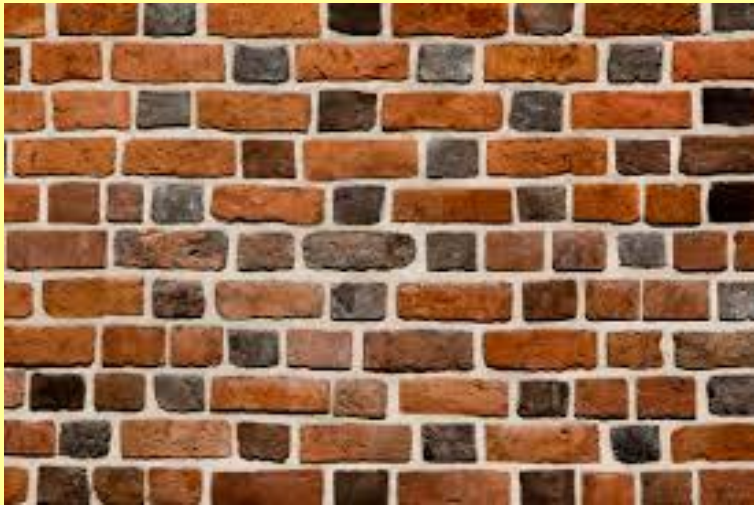
A form of energy that

- can be **seen**
- travels in a **straight line**
- move through empty space where there is no air.



# Medium

A material, substance or object that interacts with light





## 3 light mediums\*\*

**Transparent medium:** a material that lets all light energy pass through it



**Translucent medium:** a material that lets some light pass through it



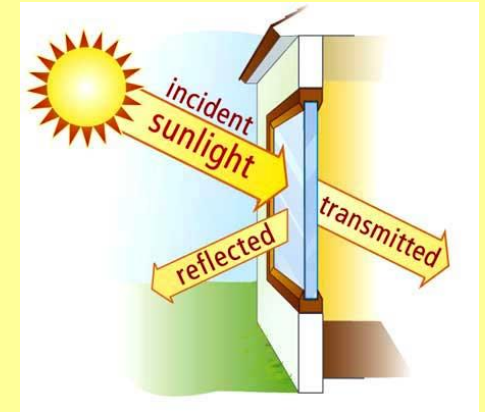
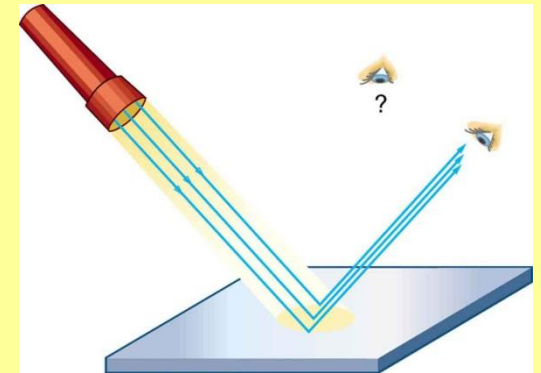
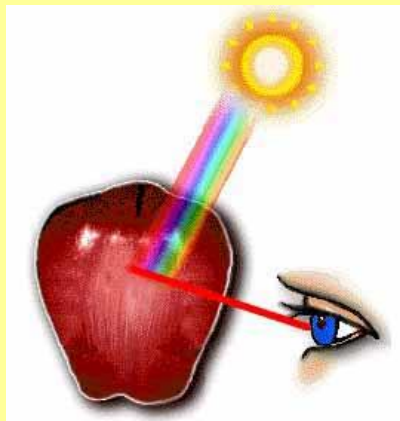
**Opaque medium:** a material that no light can pass through (absorbed)



# Interaction\*\*

What happens to light when it comes in contact with a medium.

- 1 of 4:
- Transmit
- Reflect
- Refract
- Absorb



# Transmit

- Light interaction when light passes through a transparent or translucent medium

Ex. Window



# Absorb

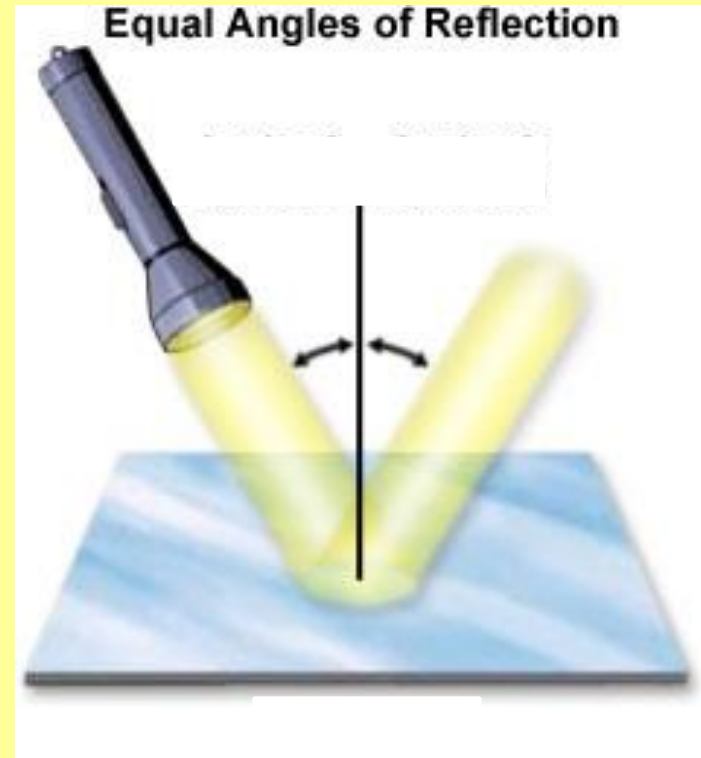


- Stops or blocks light from passing
- Turns energy into heat
- Happens with opaque mediums
- Ex: black

# Reflect/Reflection

Light energy that bounces off a surface.

Ex: mirror, water surface, tinted windows/glass





# Refract/Refraction

The bending or breaking of light rays as they pass from one substance to another.

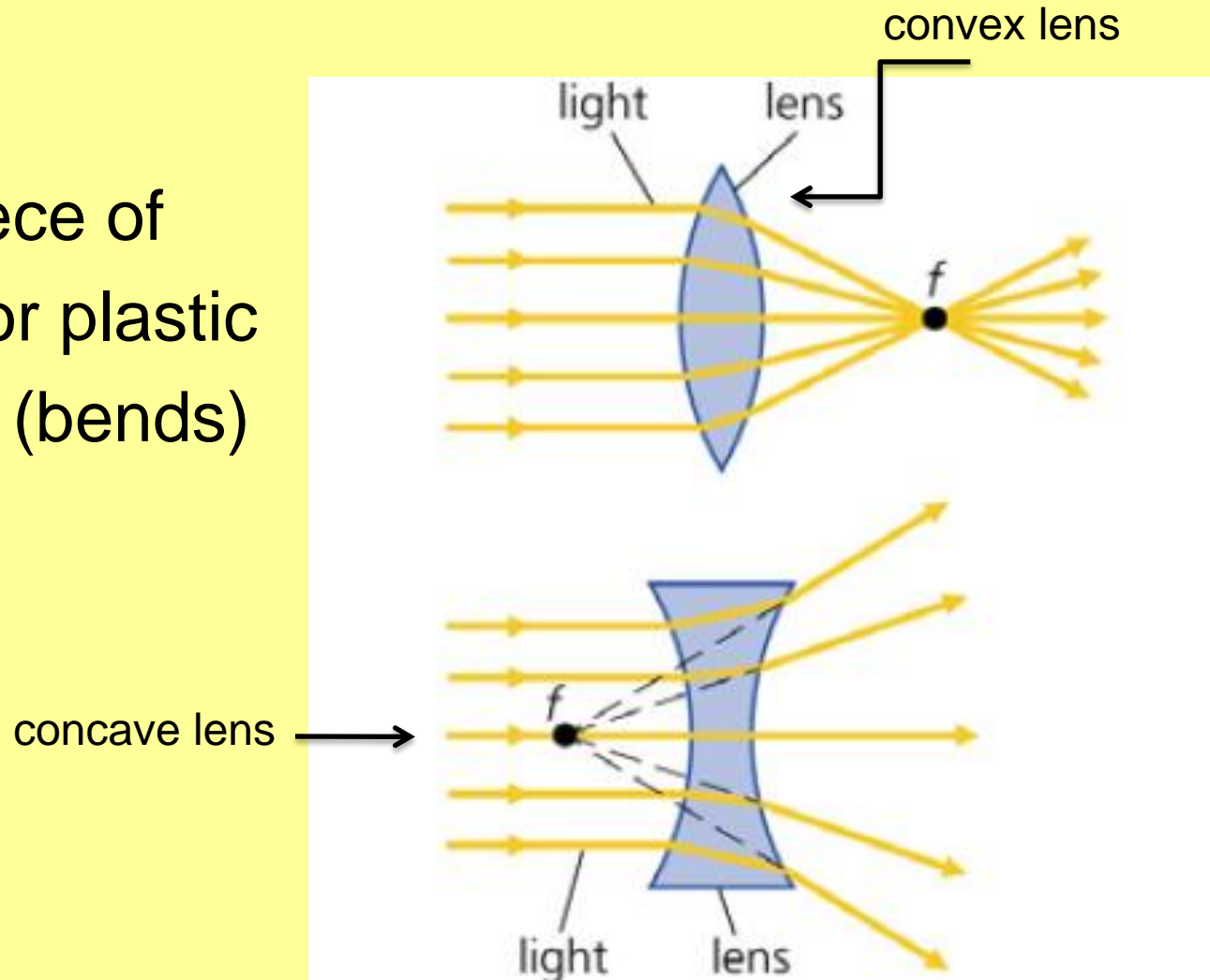
Light slows down and changes direction when it enters a medium

Ex: lens



# Lens\*\*

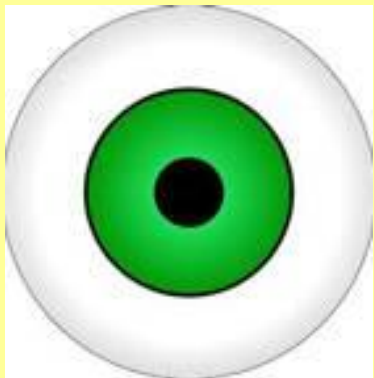
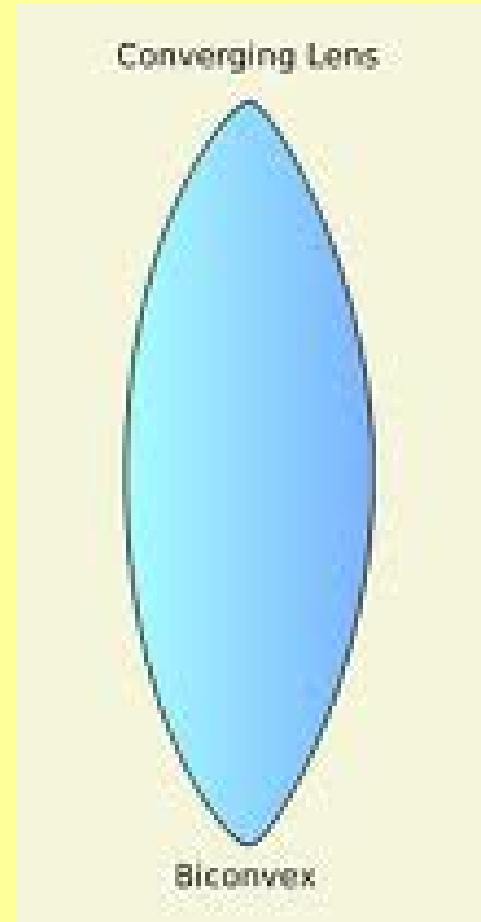
A curved piece of clear glass or plastic that refracts (bends) light rays.





# convex lens

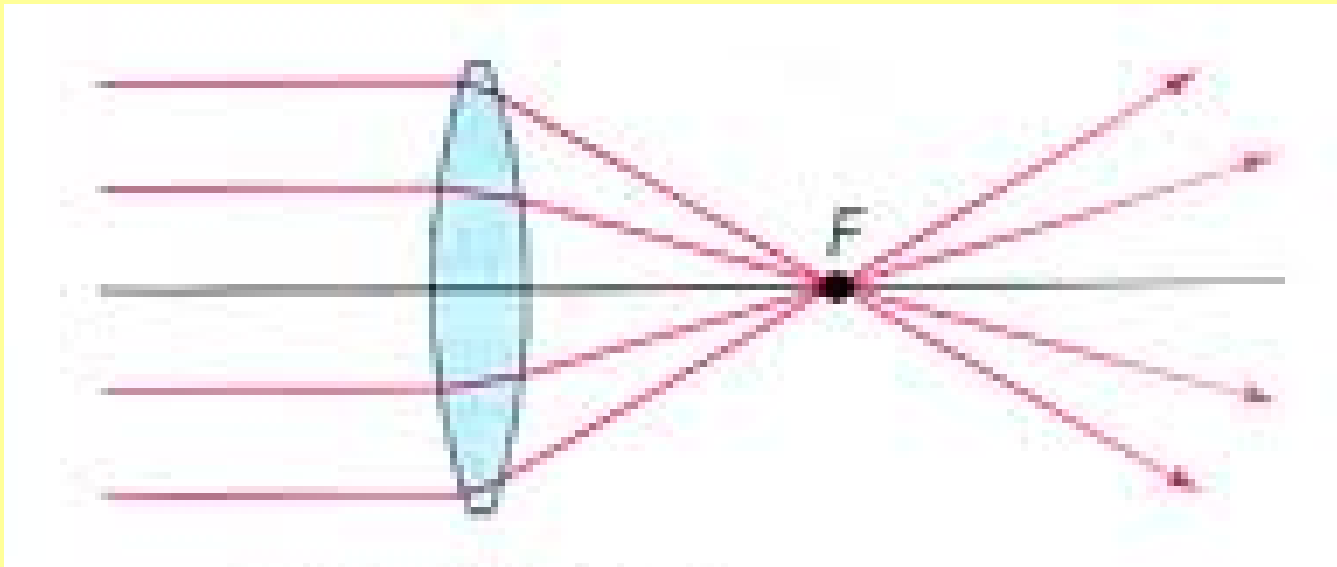
- thick middle
- thin ends
- converges light
- Makes objects appear larger/bigger

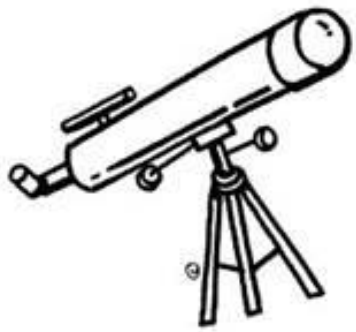


# Converge\*\*

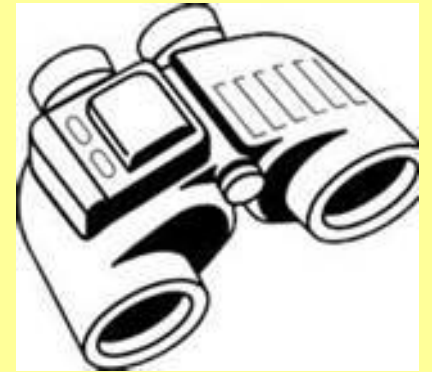
Light comes together at a point then  
spreads out

When light passes through a convex  
lens

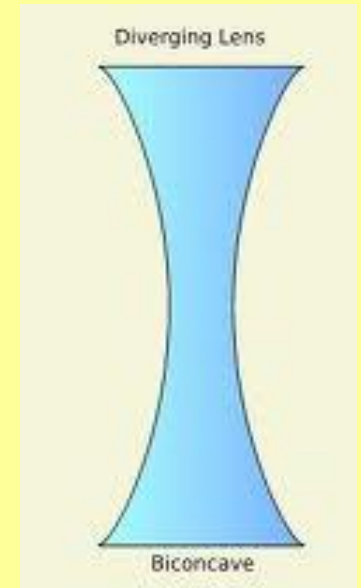




# concave lens



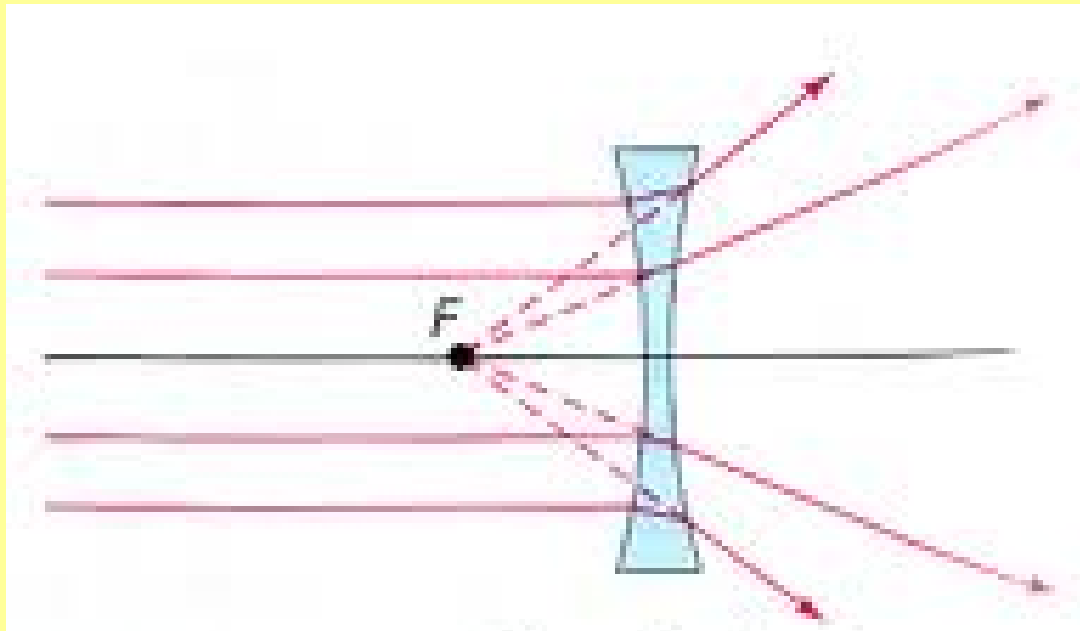
- thick ends
- thin middle; The lens “caves in”
- diverges light
- Makes objects appear smaller and closer



# Diverge\*\*

Light spreads out

When light passes through a concave lens



# Prism

A transparent object that usually has three sides and bends light so that it breaks up into rainbow colors.

