

# Chapter 13-2

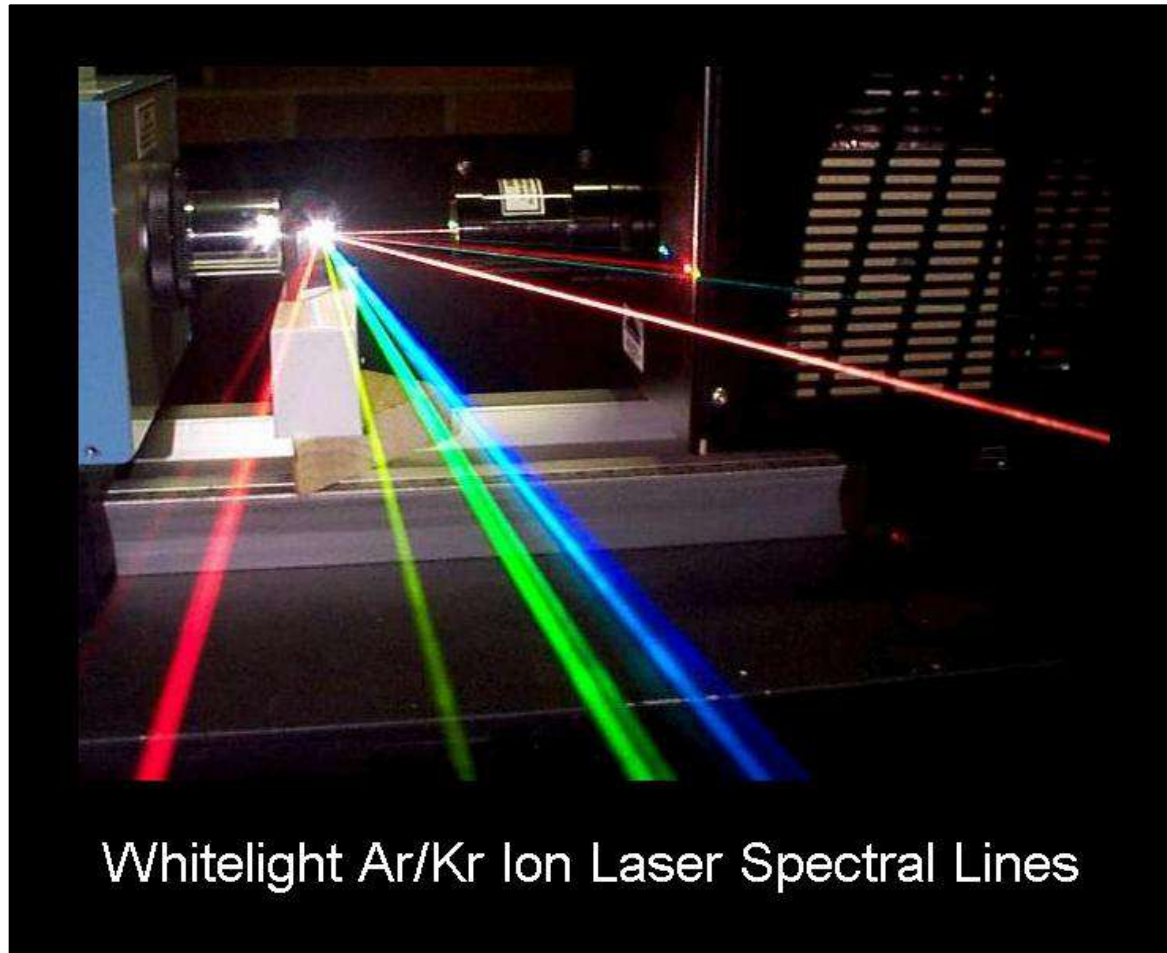
## Flat Mirrors

- [http://localhost:26300/  
Conceptual\\_Physics/3  
1\\_Reflection/01/sp.ht  
ml](http://localhost:26300/Conceptual_Physics/31_Reflection/01/sp.html)

# Reflection

- Light always travels in a straight line.
- However, when light hits another substance, it will change direction.
- If a material is opaque, the light will not pass through but instead bounce off.
- The change in the direction of the light is called reflection.

# Reflection Speaker Demo

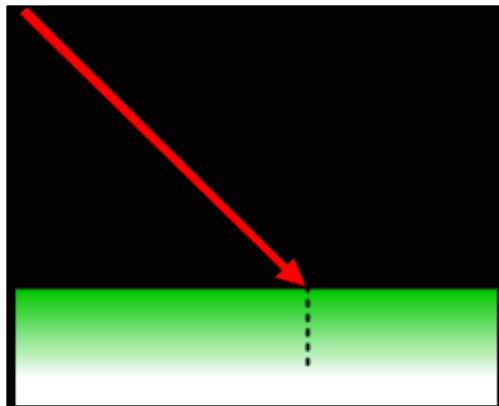


# Texture of Surface

- The manner in which the light reflects depends on the surface's smoothness.
- Light that hits a rough surface is reflected in many directions. This is called diffuse reflection.
- Light reflected off a smooth surface is reflected in one direction and is called specular reflection.

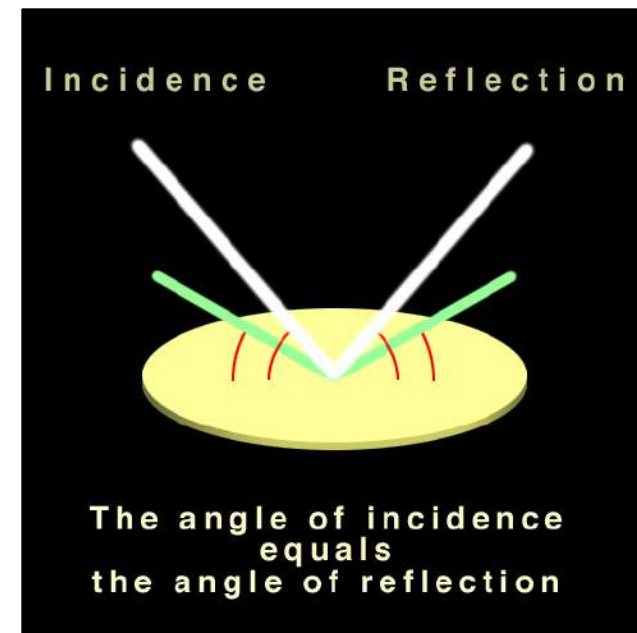
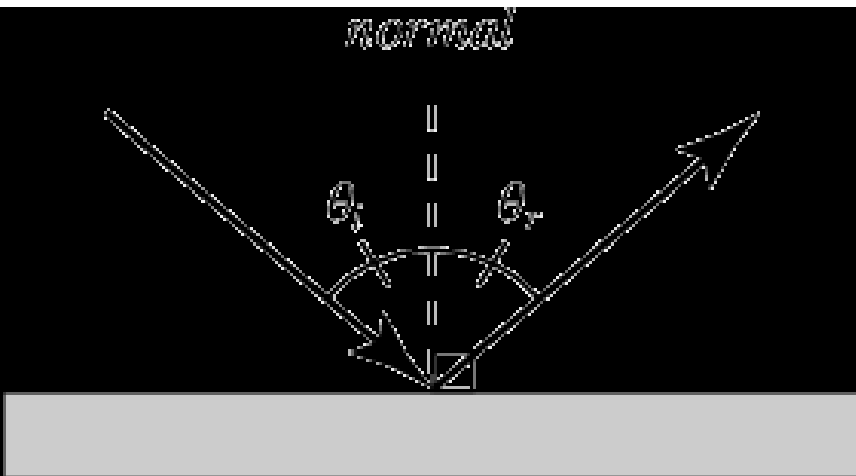
# Reflected Angles

- Angle of incidence – the angle between a ray that strikes a surface and the normal to that surface at the point of contact.



# Angle of Reflection

- Angle of reflection – the angle formed by the line normal to a surface and the direction which a reflected ray moves.

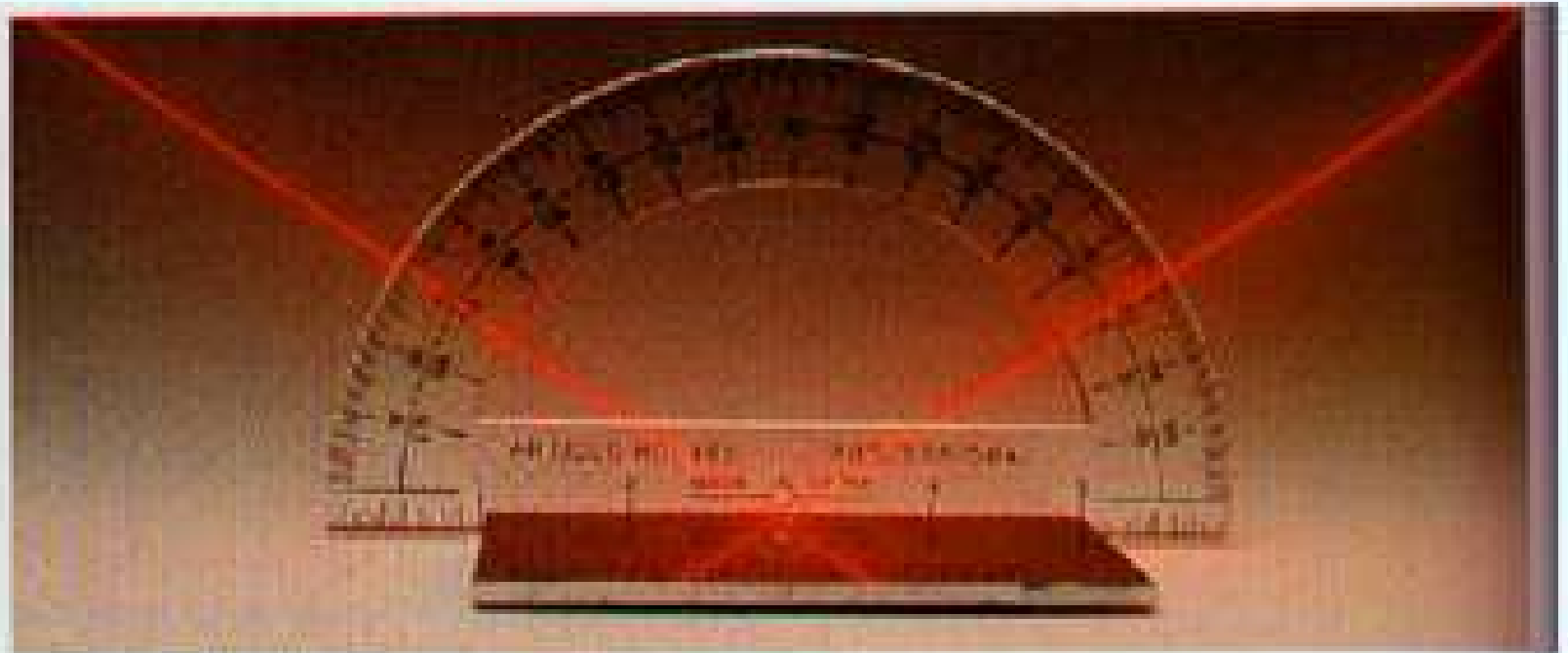


Incoming and reflected angles are equal.

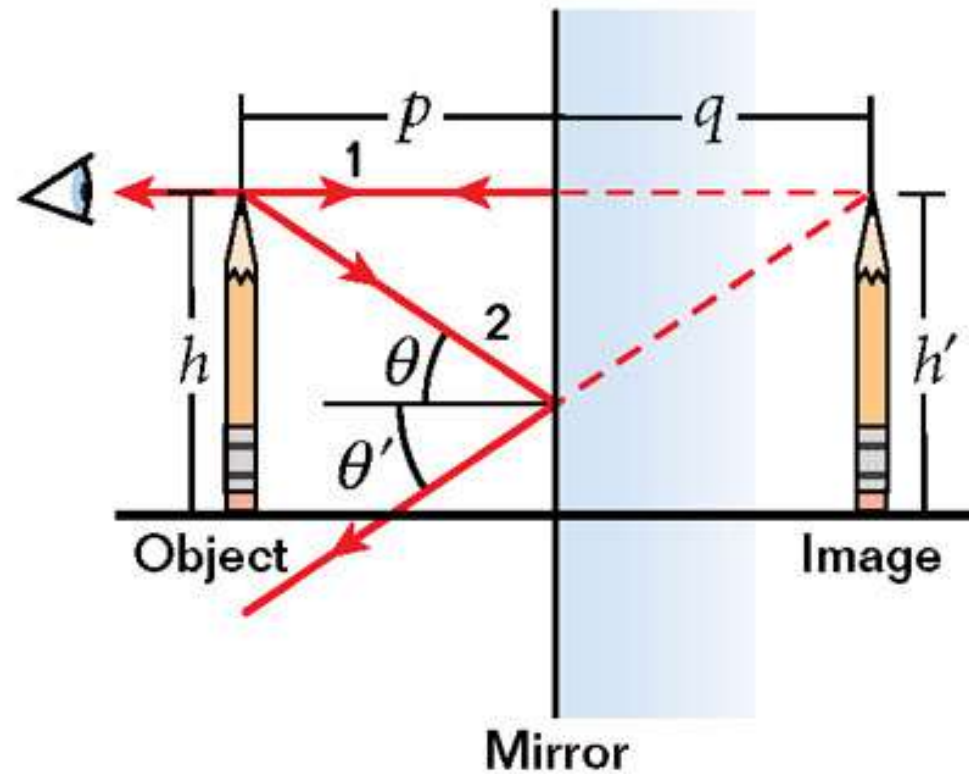
## Law of Reflection

Reflection:

The angle of incidence = the angle of reflection.



# Flat Mirror Reflection



# Reflection Rules

- Angle 1 = Angle 2
- $H_1 = H_1$  but on opposite sides
- $p = q$  but on opposite sides
- The image formed by a flat mirrors has right to left reversal.

# Class Work Due!

- 13-2 Worksheet