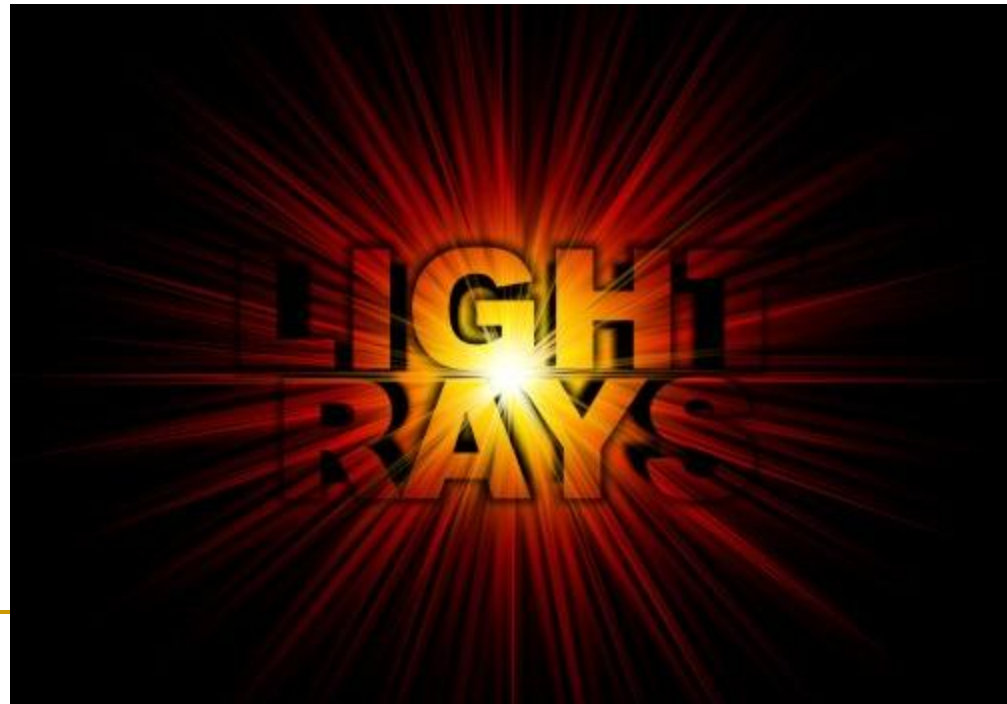

Learning Objectives –

- To learn the terminology of the ray model of light
- To discover the laws of reflection in plane mirrors



The Ray Model of Light

Section 11.4

Terminology



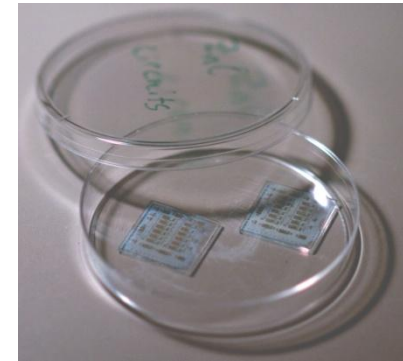
- **Light Ray**: a line and arrow representing the direction and path of light
- **Geometric Optics**: the use of light rays to determine how light behaves after striking an object
- Light has three options:
 - It can **be absorbed** by the object
 - It can **pass through** the object
 - It can **be reflected** by the object

In any
combination

Terminology



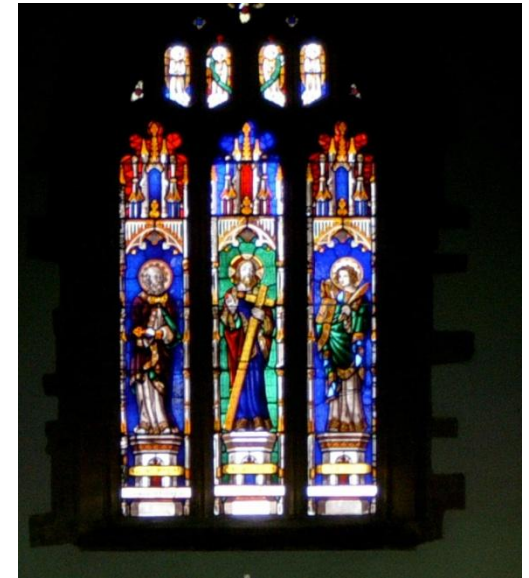
- **Transparent** objects allow all / almost all the light to **pass through** easily



Terminology



- **Translucent** objects allows **some** light to pass through, but objects cannot be clearly seen behind the object



Terminology



- **Opaque** objects either **absorb** or **reflect** all light



Terminology



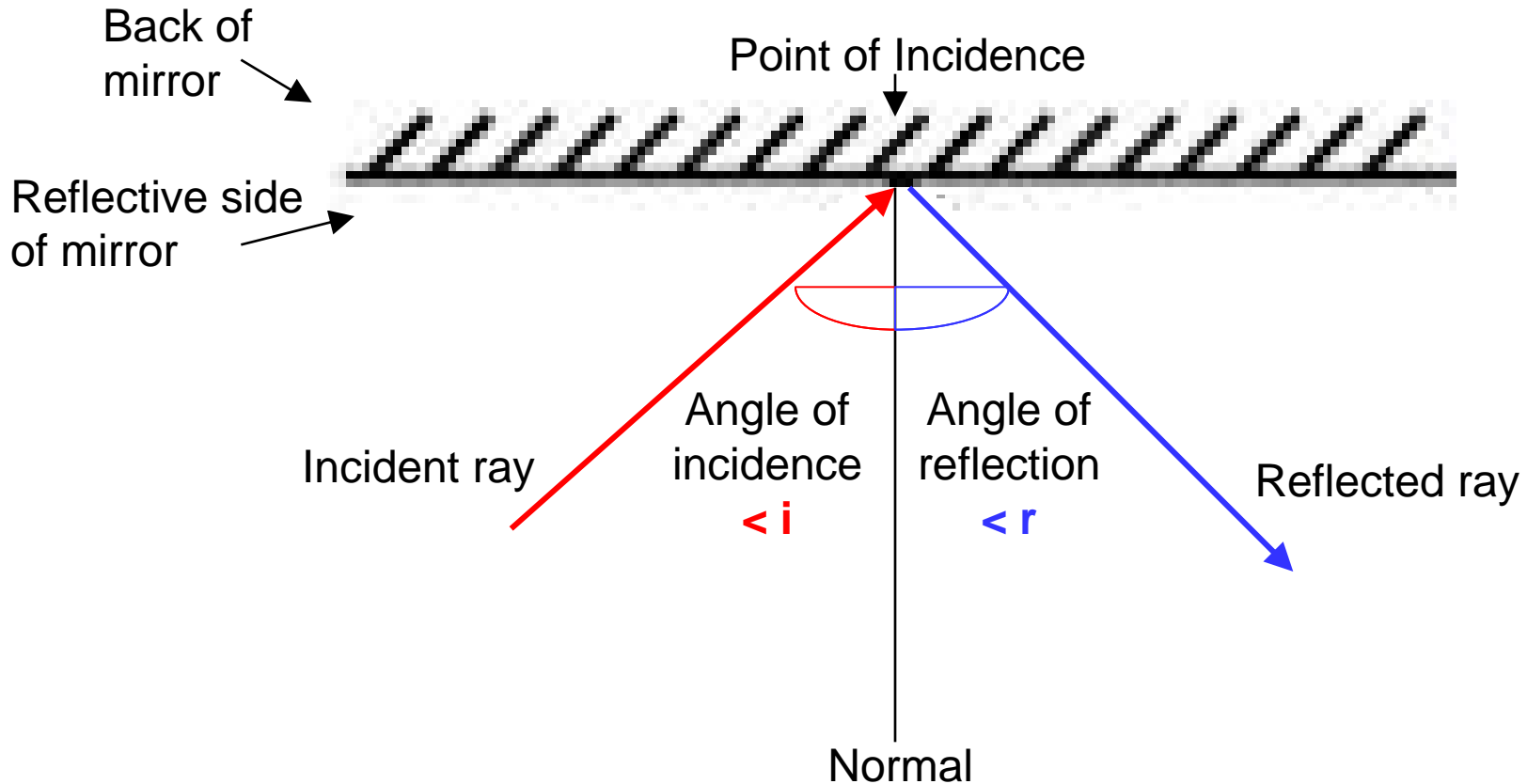
- Light emitted from a source and striking an object is called **incident light**
- Light bouncing off an object is called **reflected light**
- An **image** is a reproduction of an object that is produced through the use of light
- **Mirrors** reflect most incident light

Reflect on this....

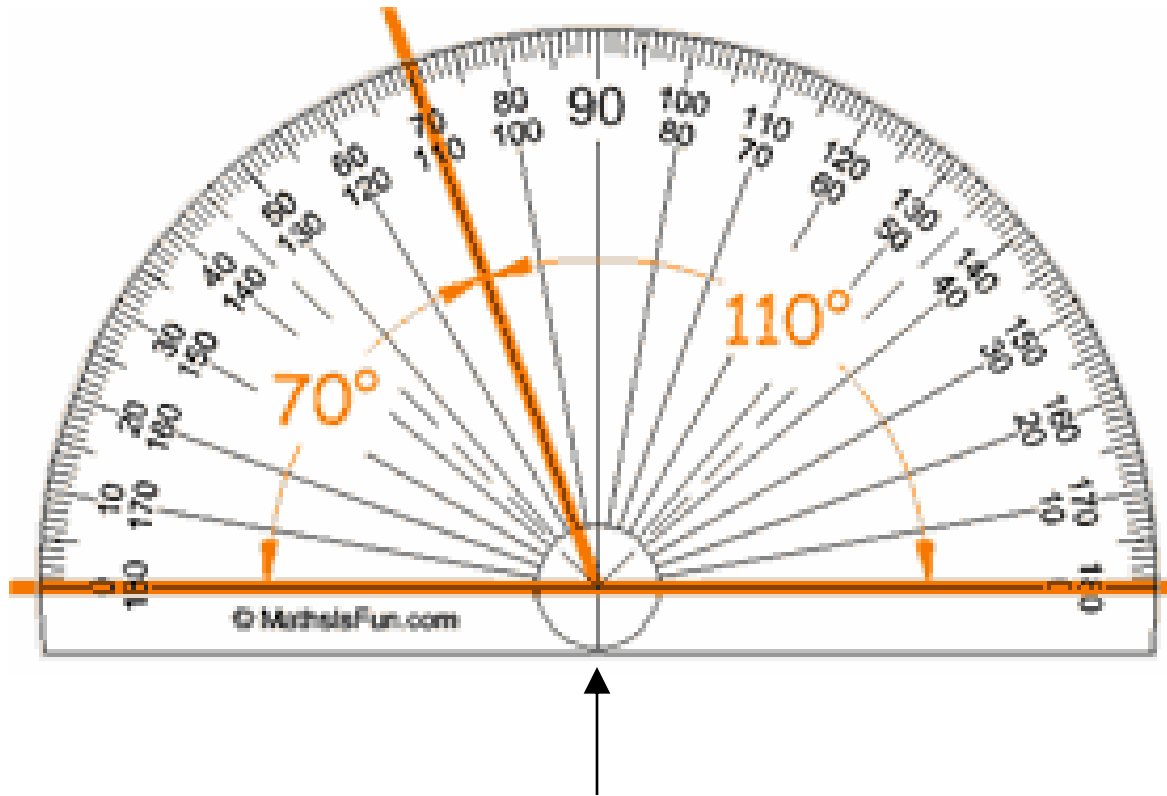
- Using a ray box and a plane mirror, make as many observations as you can about the **incident** and **reflected** light.



Drawing Mirrors and Light Rays



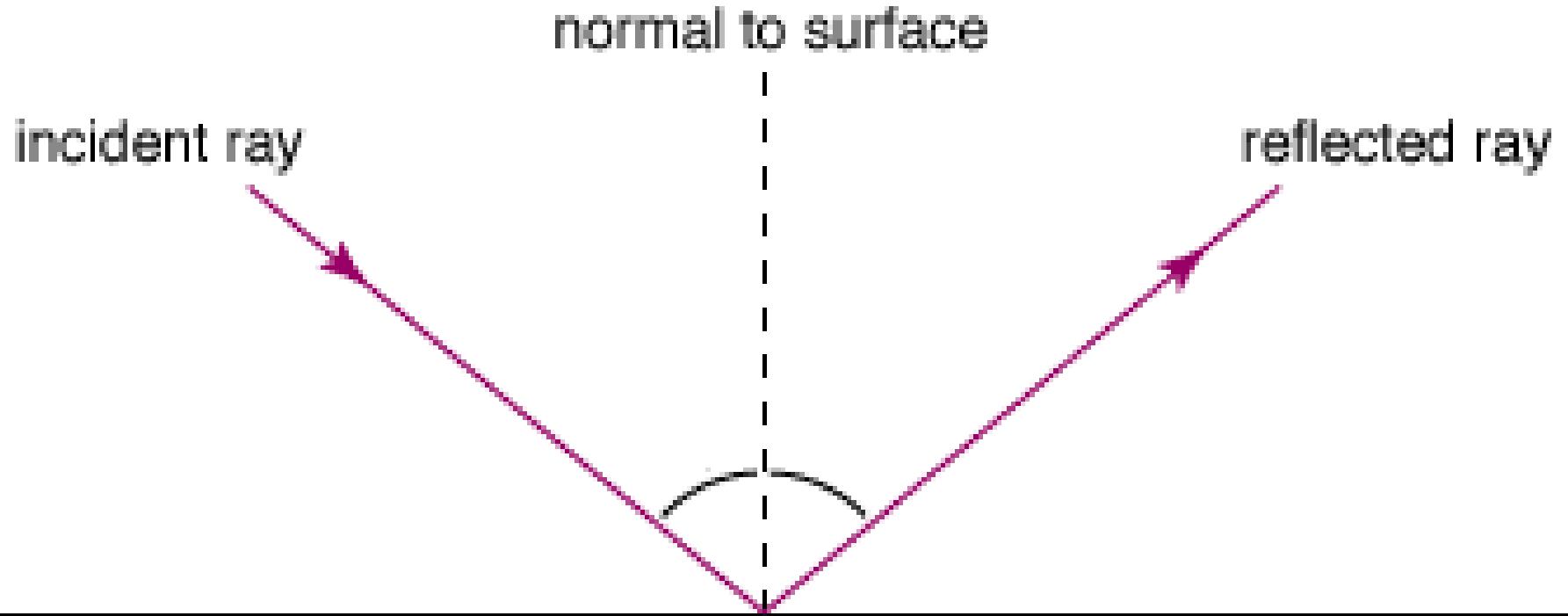
Using a Protractor



The zero line lies on the normal

This point is always on the vertex of the angle.

Using a Protractor



Reflecting Light off a Plane Mirror

- Page 482 – 483
- Observation Table [p.482 Table 1]
- Analyze & Evaluate parts a – f
- Answer questions #3 – 6 on page 481

