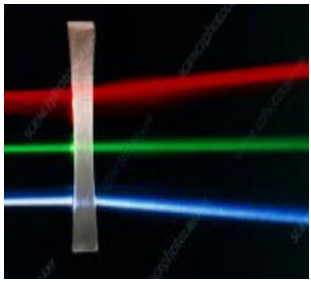




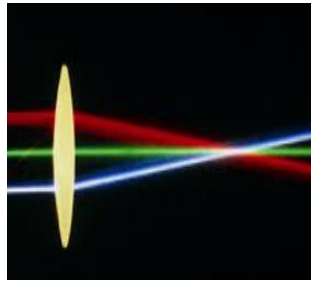
### Big Ws: Reflection

- Different objects **reflect** light in **different ways**.
- Sometimes, when the **light reflects**, it **travels** in a **different direction**. It still moves in a **straight line**.

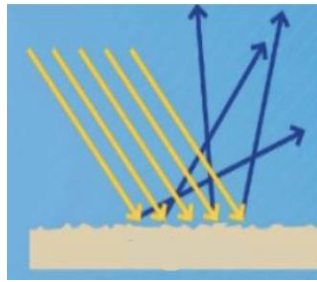
#### concave lens



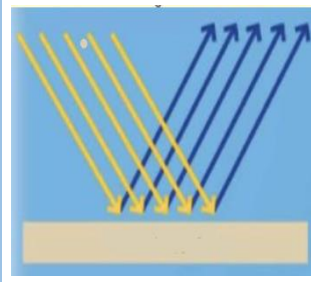
#### convex lens



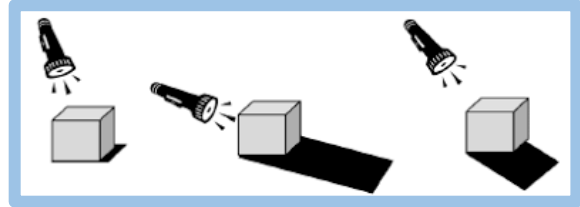
#### rough surface



#### smooth surface

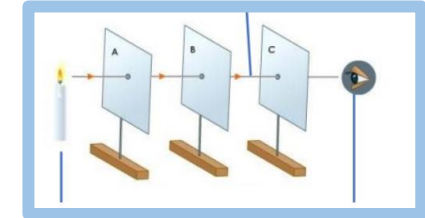


### Big Ws: Shadows



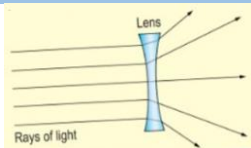
### Big Ws: Light rays

- Light travels in **straight lines**.
- We see objects when the light comes directly from a **light source**, or the light is **reflected** from the object **into our eyes**.



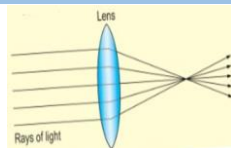
### Vocabulary

#### concave lens



Lens **thinner in the middle** than it is at the edges.

#### convex lens



Lens **thicker in the middle** than it is at the edges.

#### light source



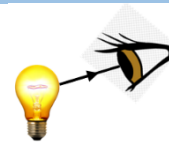
Something that **produces light**.

#### reflection



When light **bounces off a surface** and **changes direction**.

#### ray diagram



**Shows how light travels**.

### Important People

#### Alhazen (AD 965 – AD 1040)

- Discovered that **light travels in straight lines**.
- Understood how light is seen by the **human eye**.

