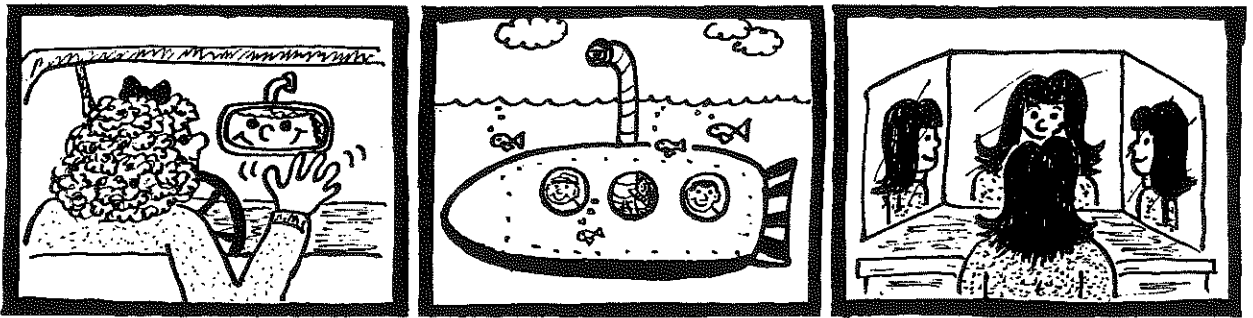


Reflection

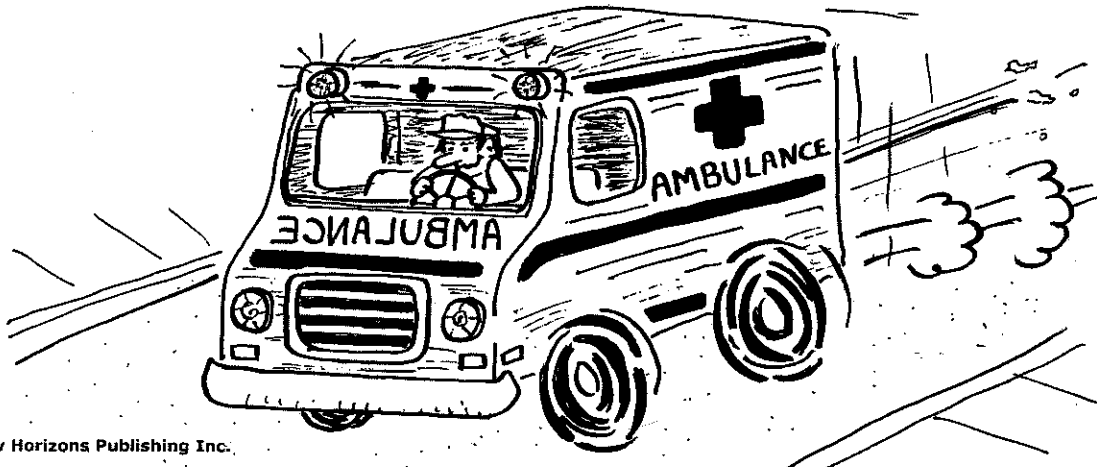
Light travels in straight lines but it can be made to turn a corner - reflection. Special types of materials that are shiny will cause light to change its direction and reflect. Mirrors are made by painting a piece of glass on one side with a shiny coating that reflects. Reflection of light is used for rearview mirrors in cars, periscopes in submarines and bathroom mirrors to help comb your hair in the morning.



Reversed Images

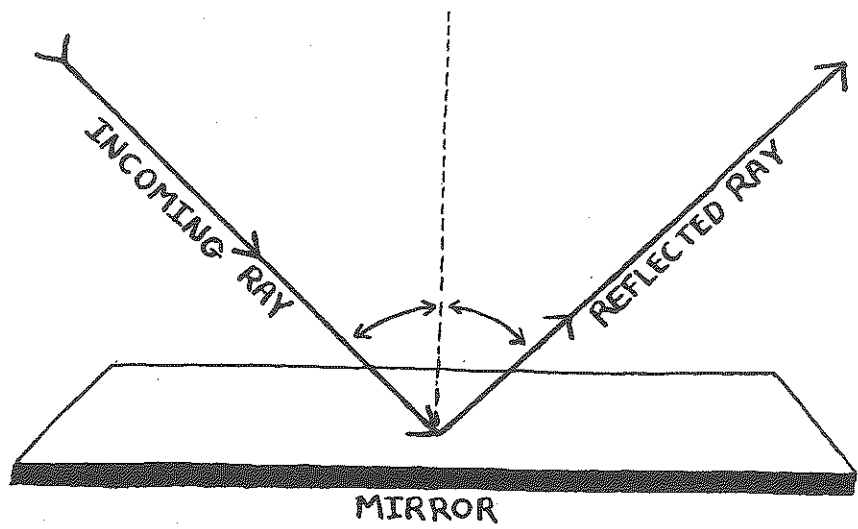
When light reflects, everything is the same except for one thing - right and left are reversed. This reversal of right and left makes it very hard to read handwriting that is held in front of a mirror.

An ambulance will often have reversed writing on the front so that drivers will be able to see the word "ambulance" correctly when they look in their rearview mirrors.

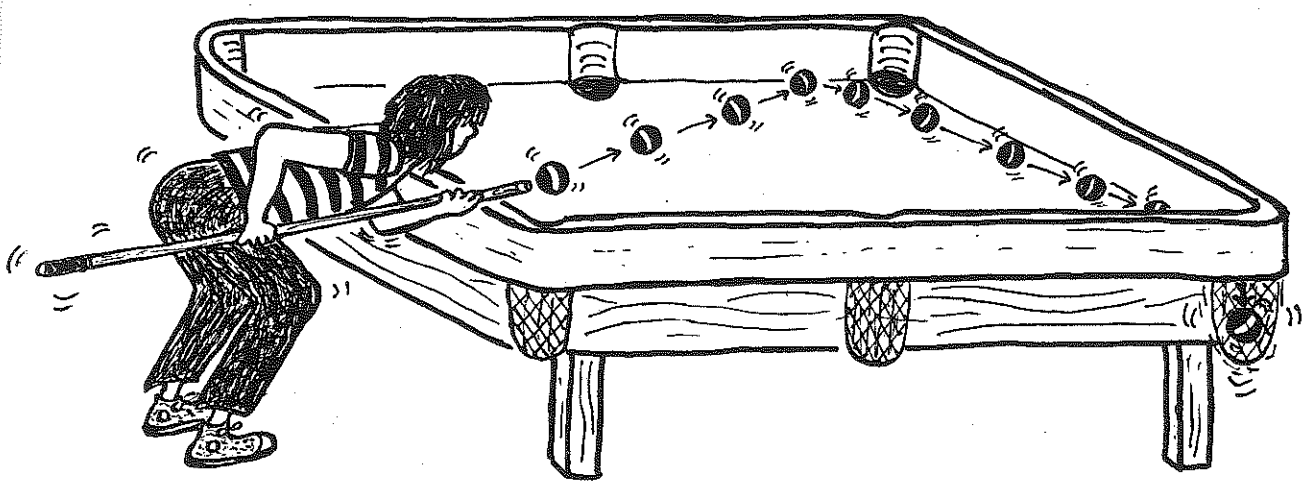


Law of Reflection

The law of reflection says that light will reflect off a mirror at the same angle that it came to the mirror.

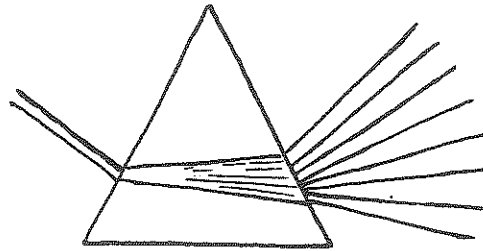
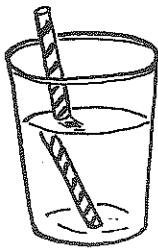


The law of reflection is not just for light. This also holds true for other things like bank shots in pool.

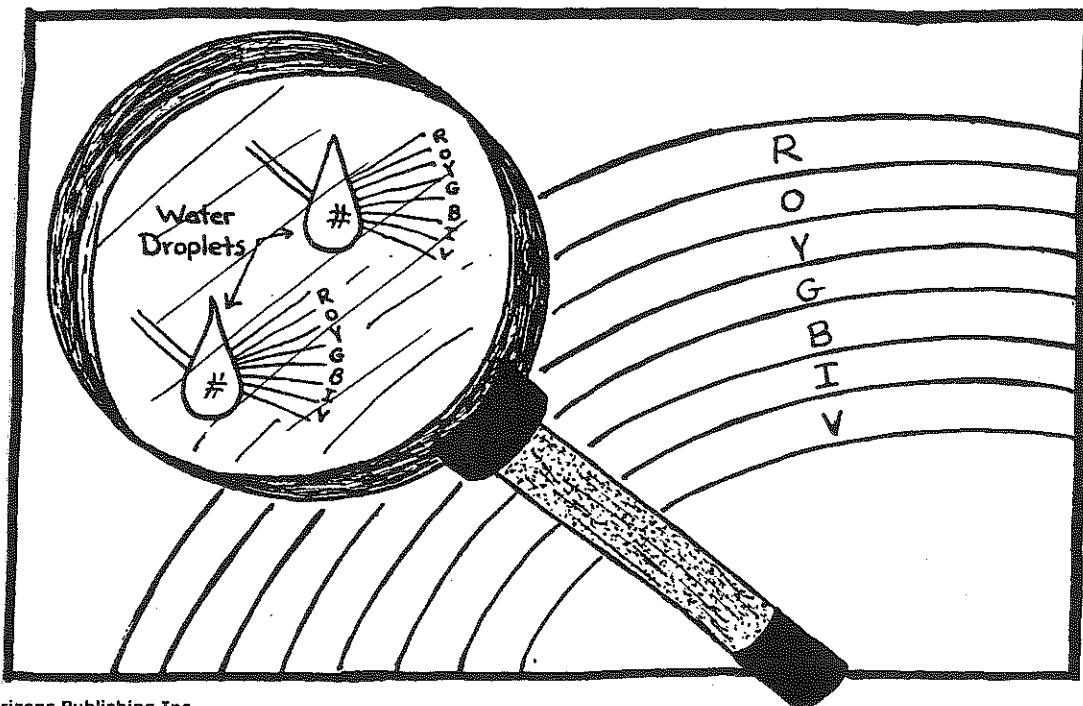


Refraction (Bending of Light)

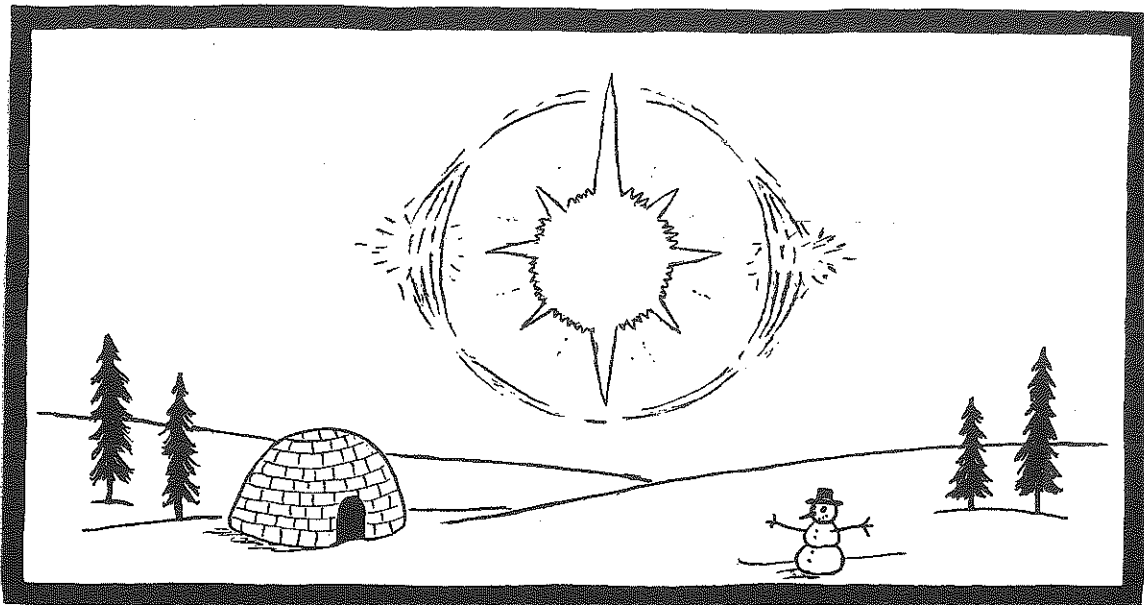
Light travels in straight lines but it can be bent. When light passes from one transparent material to another type of transparent material, the light rays are bent. Bending of light rays is called refraction. A prism is a good example of refraction as light rays are bent when they go from air to glass.



A rainbow is another example of refraction and the bending of light. White light from the sun passes through droplets of water in the air. This white light is bent (refracted) by the water droplets and separates into the colours of the rainbow, just like a prism.



“Sundogs” are small rainbows found on either side of the sun that sometimes form in the winter. Ice crystals can act like water droplets separating the light into the colours of the spectrum. Instead of a rainbow, you could call a sundog an “icebow”.



Questions (Answer In Full Sentences - A.I.F.S.)

- 1) How is a rainbow similar to a prism?
- 2) Why are there not usually rainbows on overcast days?