Reflection and Refraction

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You can see yourself clearly in a mirror because its **shiny** surface **reflects** the light.

Normal surfaces **scatter** light in all directions. Some of these scattered beams reach our eyes and we see the objects.

Black surfaces **absorb** all the light.

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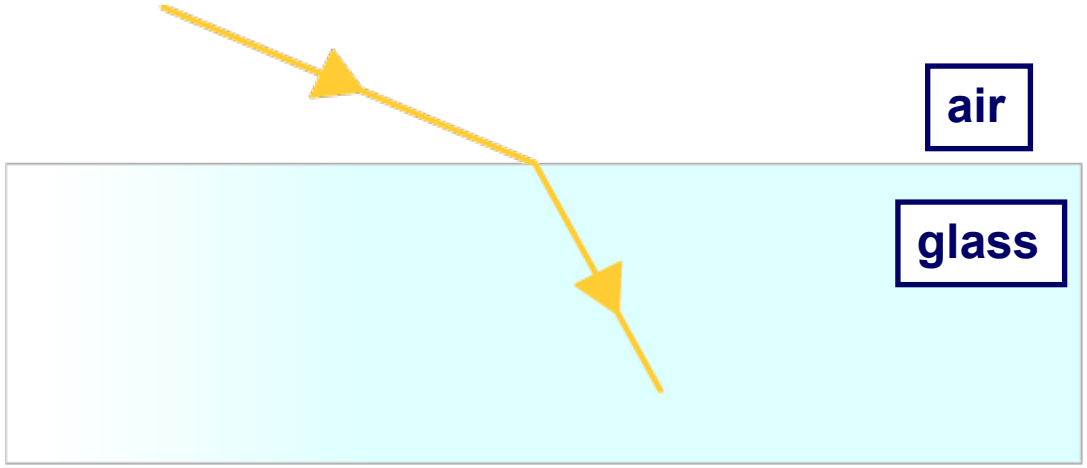
Light travels at different speeds through different materials. For example, when light moves from air into glass, the light slows down.

This is because glass is denser than air.



When light slows down, it causes the light beam to bend, or **refract**.

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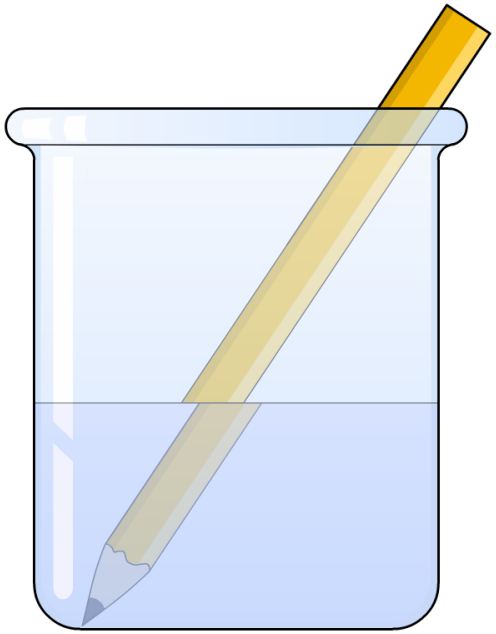
How does refraction make this pencil appear to be broken?



Light **reflects** off the pencil to our eyes.

Light that reflects off the part of the pencil that is under water is **refracted** as it travels from the water into the air. This makes the pencil appear to be broken.