## When a wave bends around objects or through openings

When a wave bends around objects or through

openings

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The bending of a wave as it crosses a boundary, changes medium, and changes speed. The bending of a wave as it crosses a boundary, changes medium, and changes speed. The bending of a wave as it crosses a boundary, changes medium, and changes speed.

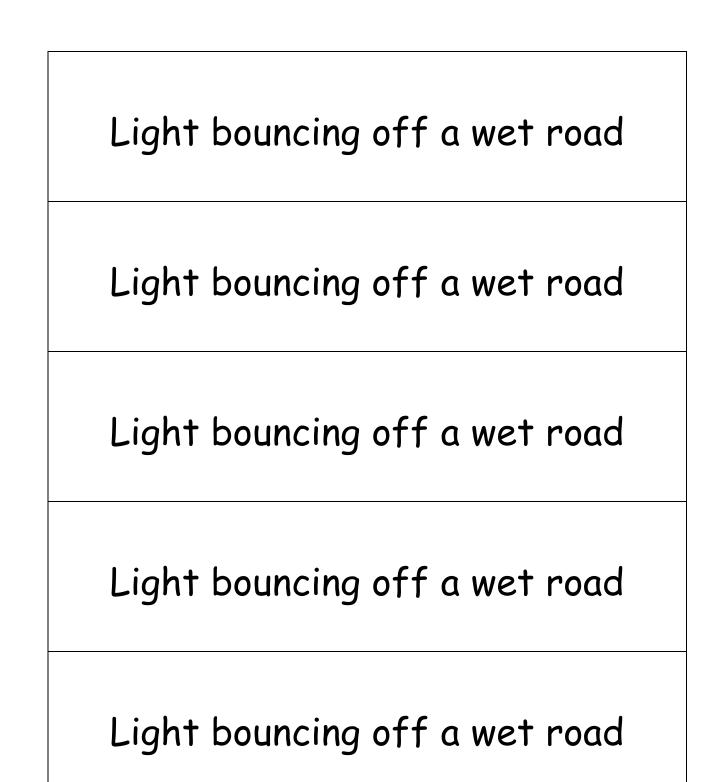
## When a wave meets a rough surface and bounces back in many directions (randomly).

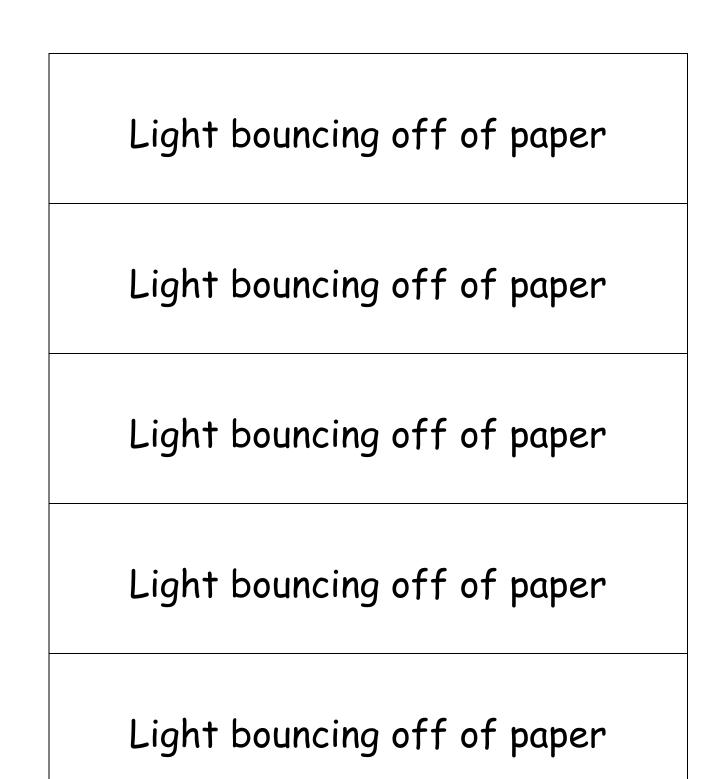
When a wave meets a rough surface and bounces back in many directions (randomly).

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When a wave meets a smooth surface and bounces back in one direction (predictably). When a wave meets a smooth surface and bounces back in one direction (predictably). When a wave meets a smooth surface and bounces back in one direction (predictably). When the angle of incidence is larger than the critical angle, there will be complete reflection of light back into the original medium.

When the angle of incidence is larger than the critical angle, there will be complete reflection of light back into the original medium. Light bouncing off of a mirror





Light bouncing off of dry road

A pencil or paper that looks broken in a cup of water

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A pencil or paper that looks broken in a cup of water A fish that appears closer to the surface than it really is

A fish that appears closer to the surface than it really is

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A fish that appears closer to the surface than it really is

The brilliant sparkle of a diamond

Carrying information (internet, cable) through optical fibers at the speed of light.

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Carrying information (internet, cable) through optical fibers at the speed of light. AM/FM radio waves traveling to your car

How light and sound waves come through a door to fill a room

How light and sound waves come through a door to fill a room

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