



Transparent, Translucent and Opaque Objects

i. Transparent Objects

- Materials that allow light to pass through them in straight lines.
- Objects on the other side are clearly visible.

Examples:

- Glass, crystal, clear plastic.

Uses:

Windows are made of transparent glass to allow sunlight into rooms.

Goggles help in seeing clearly underwater.

ii. Translucent Objects

- Materials that allow some light to pass through but do not give a clear image.
- Objects on the other side are not clearly visible.

Examples:


- Tissue paper, frosted glass, colored glass, butter paper, colored plastic.

Uses:

Bathroom windows are often made of translucent materials to allow light in while maintaining privacy.

Some substances change translucency with temperature, e.g., melted candle wax and heated butter become more translucent.

iii. Opaque Objects

- Materials that do not allow any light to pass through.
 - Objects behind them are completely blocked from view.
 - Examples: Wood, metal, stone, human body.
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Uses:

Doors are generally made of wood, an opaque material, to block light and ensure privacy.

Interesting Facts

Why is space dark? Light is only visible when it reflects off an object. Since space has no medium for light to bounce off, it appears dark.

How do rainbows form? Light enters water droplets, gets refracted inside, and is refracted again when leaving, forming a rainbow.