

Fundamentals of Light and Optics

Optics · Answer Key · 10 Questions

1. What is the primary source of light for the Earth?

A) The Moon

B) The Sun

C) A flashlight

D) A candle

2. Which of these objects is transparent, allowing most light to pass through it?

A) A wooden door

B) A clear glass window

C) A thick metal sheet

D) A cardboard box

3. What happens when light rays bounce off a smooth, shiny surface like a mirror?

A) Refraction

B) Absorption

C) Reflection

D) Diffraction

4. Which color of light has the longest wavelength in the visible spectrum?

A) Red

B) Violet

C) Blue

D) Green

5. What is the name of the phenomenon where light bends when passing from one medium to another, such as from air to water?

A) Reflection

B) Dispersion

C) Refraction

D) Polarization

6. When white light passes through a prism, it separates into different colors. What is this band of colors called?

A) A glow

B) A spectrum

C) A shadow

D) A reflection

7. What do we call an object that does not allow any light to pass through it?

- A) Transparent
- B) Translucent
- C) Opaque**
- D) Reflective

8. Which part of the human eye acts like a lens to focus light?

- A) The pupil
- B) The cornea**
- C) The iris
- D) The eyelid

9. What creates a shadow?

- A) An object blocking light**
- B) Light reflecting off a wall
- C) Light bending through water
- D) The sun setting

10. Which of these materials is translucent, letting some light through but scattering it?

- A) Clear glass
- B) Frosted glass**
- C) Solid steel
- D) Black construction paper