

## Refraction Quiz PDF

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**Which of the following phenomena involve refraction? (Select all that apply)**

- Rainbows
- Mirages
- Echoes
- Optical illusions in water

**What happens when light passes through a medium with a higher refractive index? (Select all that apply)**

- It bends towards the normal
- It bends away from the normal
- It slows down
- It speeds up

**In which medium does light travel the fastest?**

- Water
- Glass
- Air
- Diamond

**What factors can affect the refractive index of a material? (Select all that apply)**

- Temperature
- Pressure
- Wavelength of light
- Color of the material

**Explain how a prism disperses white light into a spectrum of colors.**

**How does the refractive index of a medium affect the speed of light traveling through it?**

**Which law describes the relationship between the angles of incidence and refraction?**

- Newton's Law
- Snell's Law
- Hooke's Law
- Ohm's Law

**What happens to light when it passes from air into water?**

- It speeds up
- It slows down
- It stops
- It continues at the same speed

**What is the term for the angle at which total internal reflection occurs?**

- Incidence Angle
- Reflection Angle
- Critical Angle
- Refraction Angle

**Which phenomenon is responsible for the splitting of white light into a spectrum of colors through a prism?**

- Reflection
- Diffraction
- Dispersion
- Polarization

**What type of lens converges light rays to a focal point?**

- Diverging lens
- Converging lens
- Bi-focal lens
- Concave lens

**Which of the following are applications of refraction? (Select all that apply)**

- Lenses in eyeglasses
- Fiber optics
- Solar panels
- Prisms

**Discuss how temperature and pressure can influence the refractive index of a gas.**

**What is the significance of the critical angle in fiber optics technology?**

**Why does a straw appear bent when placed in a glass of water?**

**Describe the role of refraction in the functioning of eyeglasses.**

**Which of the following statements about Snell's Law are true? (Select all that apply)**

- It relates the angles of incidence and refraction
- It applies only to light traveling in a vacuum
- It involves the refractive indices of two media
- It can be used to calculate the speed of light in a medium

**Which of the following materials has the highest refractive index?**

- Air
- Water
- Diamond
- Glass

**Which of the following are true about total internal reflection? (Select all that apply)**

- It occurs when light travels from a denser to a less dense medium
- It requires the angle of incidence to be greater than the critical angle
- It results in light being completely reflected within the denser medium
- It can occur when light travels from air to water

**What is refraction?**

- The bending of light as it passes through a medium
- The reflection of light off a surface
- The absorption of light by a material
- The scattering of light in different directions