

# Light and Sound Study Guide

Science · Practice Test · 21 Questions

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## 1. What is light described as in the text?

- A) A form of energy
- B) A type of wave
- C) A solid object
- D) A gas

## 2. How does light travel?

- A) In curved lines
- B) In straight lines
- C) In zig-zags
- D) In spirals

## 3. What is the speed of light?

- A) 186,000 miles per hour
- B) 186,000 feet per second
- C) 186,000 miles per second
- D) 186,000 kilometers per hour

## 4. What is the main source of natural light?

- A) The Moon
- B) The Stars
- C) The Sun
- D) Fireflies

## 5. What happens when a light wave bounces off a smooth, shiny surface?

- A) Refraction
- B) Absorption
- C) Reflection
- D) Diffraction

## 6. What is it called when light waves bend as they travel from one material to another?

- A) Reflection
- B) Absorption
- C) Diffraction
- D) Refraction

**7. What is absorption in relation to light?**

- A) Light waves bend
- B) Light waves bounce
- C) Light waves cannot pass through an object
- D) Light waves get brighter

**8. Which color of visible light has the smallest wavelength?**

- A) Red
- B) Orange
- C) Violet
- D) Green

**9. Which color of visible light has the largest wavelength?**

- A) Violet
- B) Blue
- C) Red
- D) Yellow

**10. Which type of lens magnifies an object?**

- A) Concave lens
- B) Convex lens
- C) Both lenses
- D) Neither lens

**11. Which type of lens makes an object look smaller?**

- A) Concave lens
- B) Convex lens
- C) Both lenses
- D) Neither lens

**12. How do we see the orange color of a basketball?**

- A) White light is absorbed, and orange light is reflected.
- B) Orange light is absorbed, and white light is reflected.
- C) All colors are absorbed.
- D) All colors are reflected.

**13. What is sound described as in the text?**

- A) A form of matter
- B) A form of energy
- C) A type of gas
- D) A solid object

**14. How is sound made?**

- A) By light
- B) By vibrations
- C) By heat
- D) By electricity

**15. What are vibrations?**

- A) Up-and-down movements
- B) Back-and-forth movements
- C) Side-to-side movements
- D) Circular movements

**16. What are the two characteristics of sound mentioned?**

- A) Speed and direction
- B) Pitch and volume
- C) Frequency and amplitude
- D) Wavelength and color

**17. What does pitch measure?**

- A) How loud or soft a sound is
- B) How fast a sound travels
- C) How high or low a sound is
- D) How far a sound travels

**18. What does volume measure?**

- A) How high or low a sound is
- B) How loud or soft a sound is
- C) How fast a sound travels
- D) How far a sound travels

**19. How do sound waves allow us to hear?**

- A) They make our eyes vibrate.
- B) They make our nose vibrate.
- C) They make our ear drums vibrate.
- D) They make our tongue vibrate.

**20. What would you expect to feel if swimming with sperm whales making noise?**

- A) My body would feel lighter.
- B) My body would shake.
- C) My body would feel numb.
- D) My body would float higher.

**21. Why would your body shake if swimming with sperm whales making noise?**

- A) Because sperm whales are quiet animals.
- B) Because their soundwave vibrations are powerful and travel through water.
- C) Because they use light to communicate.
- D) Because they produce a cooling effect.