

Light and Sound Study Guide

Science · Answer Key · 21 Questions

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.