

Name \_\_\_\_\_

## Waving Hello to Wavelength: How it Shapes a Wave's World

### Multiple Choice Questions

1. What is wavelength?
  - A) The distance between two consecutive identical points on a wave
  - B) The height of a wave's crest
  - C) The number of waves passing by in one second
  - D) The speed at which a wave travels
  
2. Which type of wave has particles that move perpendicular to the wave's direction?
  - A) Transverse wave
  - B) Longitudinal wave
  - C) Electromagnetic wave
  - D) Sound wave
  
3. How does wavelength affect wave speed in a given medium?
  - A) Longer wavelengths result in slower wave speed.
  - B) Shorter wavelengths result in slower wave speed.
  - C) Longer wavelengths result in faster wave speed.
  - D) Wavelength does not affect wave speed.
  
4. What property of a wave does wavelength have a significant impact on?
  - A) Wave frequency
  - B) Wave amplitude
  - C) Wave energy
  - D) Wave direction
  
5. Which color of visible light has the shortest wavelength and carries the most energy?
  - A) Red
  - B) Green
  - C) Blue
  - D) Yellow

