

Name _____

Waves in Harmony: Exploring the Applications of Wave Interference

Multiple Choice Questions

1. What is wave interference?
 - A) The reflection of waves off a surface
 - B) The interaction of waves when they meet
 - C) The bending of waves around obstacles
 - D) The absorption of wave energy

2. When two waves are in phase and combine to form a stronger wave, it is an example of:
 - A) Destructive interference
 - B) Constructive interference
 - C) Wave reflection
 - D) Wave diffraction

3. Which type of interference results in canceled-out or weaker effects?
 - A) Constructive interference
 - B) Destructive interference
 - C) Wave refraction
 - D) Wave absorption

4. What causes the vibrant colors seen in oil slicks on water?
 - A) Wave absorption
 - B) Wave reflection
 - C) Constructive interference
 - D) Destructive interference

5. How do noise-canceling headphones reduce unwanted sounds?
 - A) By reflecting noise waves
 - B) By absorbing noise energy
 - C) By using constructive interference
 - D) By creating destructive interference

