

Name: _____

Date: _____

1. Which of the following explains why an apple looks red?
 - A. The apple is reflecting red light and absorbing all other colors of light.
 - B. The apple is absorbing red light and reflecting all other colors of light.
 - C. The apple is absorbing all colors of light, but it absorbs the red light better.
 - D. The apple is reflecting all the light.

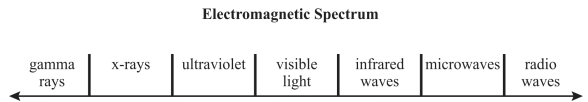
2. A sound wave is produced in a metal cylinder by striking one end. Which of the following occurs as the wave travels along the cylinder?
 - A. Its amplitude increases.
 - B. Its frequency increases.
 - C. It transfers matter.
 - D. It transfers energy.

3. Which of the following choices best explains why grass on a distant hillside appears green?
 - A. Grass reflects all colors except green.
 - B. Grass absorbs only green light from the sun.
 - C. Grass reflects green light more than any other color.
 - D. Grass transmits green light in the same way that green-colored cellophane does.

4. A radio station transmits to a receiving antenna. The radio wave sent is a
 - A. sound wave.
 - B. torsional wave.
 - C. longitudinal wave.
 - D. transverse wave.

5. Astronauts on the Moon would *not* be able to hear a landslide because
 - A. the lunar dust deadens sounds.
 - B. intensive sunlight destroys sound waves.
 - C. the magnetic field of the Moon is too weak to carry sound.
 - D. air molecules on the Moon are too far apart to carry sound.

6. A diagram of the electromagnetic spectrum is shown below.



Sunscreen is a lotion used to protect skin from exposure to the Sun. This sunscreen protects a person's skin from wavelengths that are

- A. longer than radio waves but shorter than x-rays.
 - B. longer than x-rays but shorter than infrared waves.
 - C. longer than microwaves but shorter than infrared waves.
 - D. longer than visible light waves but shorter than radio waves.

7. Which diagram correctly orders different colors of light according to the value of a property?

- A. **Smallest amplitude** ← | Red | Orange | Green | Blue | → **Largest amplitude**
- B. **Largest amplitude** ← | Red | Orange | Green | Blue | → **Smallest amplitude**
- C. **Shortest wavelength** ← | Red | Orange | Green | Blue | → **Longest wavelength**
- D. **Longest wavelength** ← | Red | Orange | Green | Blue | → **Shortest wavelength**