Name _____

Riding the Wave: Classifying Waves in Physics

Short Answer Key

1. An example of a mechanical wave is a sound wave, and it requires a medium to travel through because it depends on the vibration and compression of particles in the medium to transfer energy.
2. In a transverse wave, particles of the medium move perpendicular to the direction of the wave. For example, if you shake a rope up and down, the particles move vertically.
3. Two types of high-frequency waves are X-rays and gamma rays. X-rays are used in medical imaging, while gamma rays are used in radiation therapy and nuclear medicine.
4. The amplitude of a wave is related to its energy because waves with higher amplitudes have larger displacements and carry more energy.
5. Wavelength is the distance between two consecutive points on a wave in phase. An example of a wave with a short wavelength is ultraviolet light.