

Name _____

Cosmic Ripples: Exploring the Universe with Gravitational Waves

Short Answer

1. How did the direct detection of gravitational waves confirm a major scientific theory?
2. Describe the process by which LIGO detects gravitational waves.
3. Why are neutron star collisions significant events for astronomers, and how do gravitational waves help in their study?
4. What type of cosmic events can be observed using gravitational waves that traditional telescopes cannot detect?
5. Explain how gravitational waves can be used to measure cosmic distances and their role in understanding the universe's expansion rate.

