Name _____

Unraveling the Mysteries of Ocean Tides and Their Impact on Climate

Short Answer Key

1. Ocean tides are primarily caused by the gravitational pull of the Moon and the Sun on Earth's oceans.
2. Spring tides result in higher high tides than neap tides because they occur when the Sun, Earth, and the Moon align, creating stronger gravitational forces.
3. Coastal erosion, influenced by tides, can lead to land loss, affecting local climate by changing temperature patterns and exposing vulnerable ecosystems to saltwater intrusion.
4. Ocean currents influenced by tides play a crucial role in distributing heat around the planet, affecting climate patterns. Tides can influence these currents by varying water levels.
5. Rising sea levels and tidal fluctuations can combine to cause coastal flooding, leading to increased vulnerability for coastal communities and ecosystems.