

Name _____

Tides: The Dance of Earth and Moon

Open-Ended Response Answer Key

1. My choice of picnic location and time would be influenced by my understanding of tides. I would want to avoid setting up near the shoreline during high tide to prevent our picnic area from being flooded by rising seawater. Instead, I would choose a location farther from the water's edge. Additionally, I would plan the picnic for a time when the tide is receding or at low tide to ensure a safe and enjoyable picnic experience.
2. Understanding tides is highly significant for activities like boating, fishing, and coastal navigation. Knowledge of tide schedules helps boaters plan their journeys, ensuring they can navigate safely through shallow areas during high tide and dock at appropriate locations during low tide. Fishermen can use tide information to identify the best times for fishing, as fish tend to be more active during tidal changes. Coastal navigation, especially in areas with significant tidal variations, relies on accurate tide predictions to prevent accidents and ensure the safety of ships and vessels.
3. The Bay of Fundy in Canada experiences the highest tides in the world due to its unique geography and the funneling effect of the bay's shape. The bay's narrow and funnel-like structure amplifies the tidal forces, causing significant tidal variations. The extreme tides in the Bay of Fundy can reach heights of up to 53 feet (16 meters).

These extreme tides have a profound impact on the local environment and tourism. They influence coastal ecosystems, creating intertidal zones where unique marine life thrives. The tidal energy is also harnessed for renewable energy production. In terms of tourism, the Bay of Fundy's dramatic tides attracts visitors from around the world who come to witness this natural wonder and participate in activities like tidal bore rafting and exploring the tidal flats during low tide.

