CLASS 7

GEOGRAPHY

CHAPTER-5 –WATER (Handout)

MODULE 3/3

TIDES:

The rhythmic rise and fall of ocean water twice in a day is called as a **tide**.

It is high tide when water covers much of the shore by rising to its highest level.

It is low tide when water falls to its lowest level and recedes from the shore.

The strong **gravitational** pull exerted by the sun and the moon on earth's surface causes the tides.

Spring Tides

The water of the earth closer to the moon gets pulled under the influence of the moon's **gravitational force** and causes high tide. During the full moon and new moon days, the sun, the moon and the earth are in same line. The gravitational force of the sun is added to the gravitational force of the moon. It causes high tides. These tides are called **spring tides**.

Neap Tides

When the moon is in its first and last quarter, the ocean water get drawn in diagonally opposite directions by the gravitational pull of sun and moon resulting low tides and these are called **neap tides.**

They occur when the gravitational forces of the moon and the sun are perpendicular to one other [with respect to the earth].

The Importance of Tides:

1. High tides help in navigation. They raise the water level close to the shores. This helps the ships to arrive at harbour more easily.

2. The high tides also help in fishing. Many more fish come closer to the shore during the high tide. This enables fishermen to get a plentiful catch.

3. Tides are also used for the generation of tidal electricity.

Ocean Currents :

Ocean Currents are streams of water flowing constantly on the ocean surface in definite directions. The ocean currents may be warm or cold.

Generally the warm ocean currents originate near the equator and move towards poles. The cold currents carry water from polar or higher latitudes to tropical or lower latitudes.

Ocean currents are generally named after the regions along which they flow. The Labrador Ocean current is cold current while the Gulf Stream is a warm current. The ocean currents influence the temperature conditions of the area.

The Gulf Stream influences the climate of the east coast of North America, keeping temperature warmer in the winter.

The areas where the warm and cold currents meet provide the best fishing grounds of the world.

Seas around Japan and the eastern coast of North America are such examples. The areas where a warm and cold current meet also experience foggy weather making it difficult for navigation.

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