High tide is when the sea or ocean is closer to the moon. It advances to its furthest extent onto the shore (attracted to the moon's gravitational pull). Low tide is when the sea or ocean recedes to its furthest extent (the water surface is no longer in front of the moon and less strongly attracted).

Tide range: difference between height at high and low tide

Tide amplitude: elevation above sea level (half of range).

Tide: rise and fall of the ocean

Current: motion of water

Rip currents form where sand bars are on a beach. Rip currents are narrow streams of water that move rapidly away from a beach.

Centrifugal force is the force that causes the oceans to bulge on the opposite side facing the moon.

Spring tide: Tides experienced during New and Full moon are higher or lower than usual. It's like 2 extremes - they happen twice a month. This is caused by orbiting when the sun, moon, and earth line up in a straight line affecting the gravitational pull.

Neap tides: they happen during the first and last quarters of the moon. At a low tide, the moon is facing the earth at a right angle to the sun. That means the moon and sun's gravity are working against each other. It usually happens when 2 spring tides happen, and it happens once a month.

Currents are the constant movement of sea water. They are caused by things like winds, tides, changes in water, water density and the spinning of the earth.

Gyres are large systems of circular ocean currents caused by things like wind movement. The main gyres are: North Atlantic, South Atlantic, North Pacific, South Pacific and Indian