**What drives ocean currents?**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Coriolis Effect**

* Results from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and influences \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

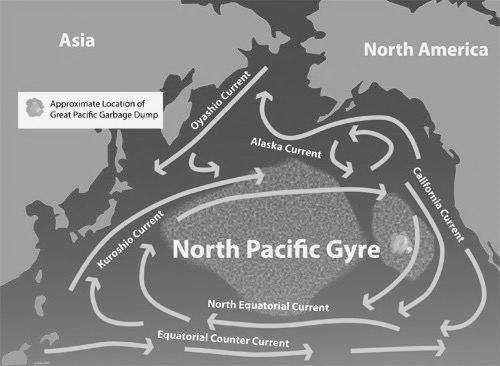
**Surface Currents**

* Ultimate reason for world’s surface ocean currents is the \_\_\_\_\_\_\_\_\_\_\_.
  + Earth is heated by the sun.
  + Wind blows over the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .
  + Energy is transferred from wind’s energy
  + Push creates surface currents.

**Direction of Surface Currents**

[](https://en.wikipedia.org/wiki/File:BlankMap-World-1ce.png)

* Along the west coasts of continents, currents flow toward the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - bring cool water from the polar regions into the tropical region.
* Along the east coasts of continents, currents flow from the equator toward the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ - brings the warm tropical water toward the poles.
* A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a large circular current



|  |  |
| --- | --- |
| **Tidal Currents**   * Tides move across Earth, encounter \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and results in tidal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which are extremely fast especially when the tidal range is large. | **At the Beach!**   * Currents can flow:   + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - long-shore      * + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - rip currents |
| **Deep Ocean Currents**   * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ caused by differences in water:   + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **Upwelling**   * Upwelling occurs when cold \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rich water comes to the surface to replace water that has been moved off the coast by winds. |