8th Grade Notes 21-1 /41 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_ hr\_\_

OCEAN CURRENTS

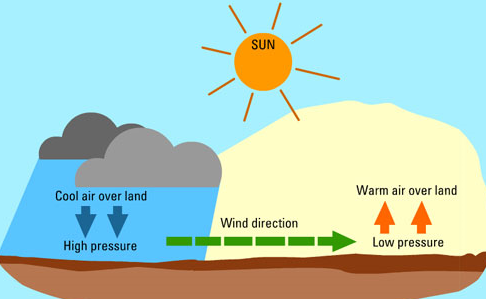
I. Ocean currents = a horizontal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of water in a well-defined \_\_\_\_\_\_\_\_\_\_\_\_\_

A. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **CURRENTS** = a horizontal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of ocean water at or near the surface of the ocean.

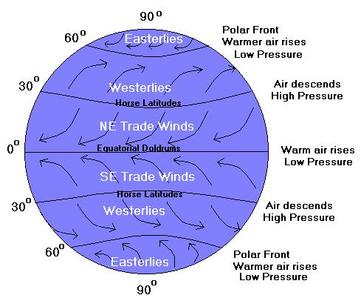
1. Three factors that control surface currents

a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CURRENTS (aka \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

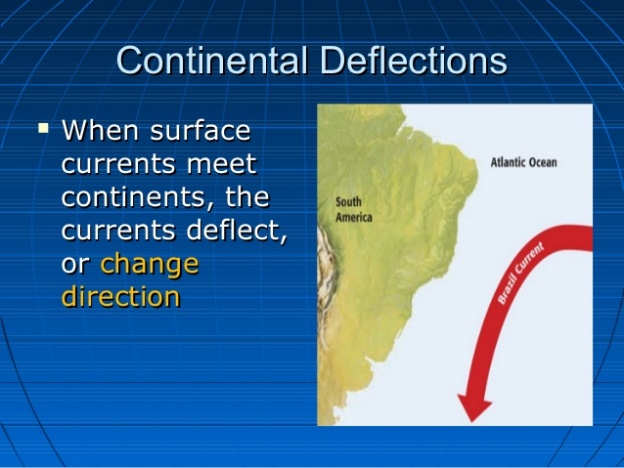
* As air in areas of low pressure \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and air in areas of high pressure \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, wind is created.
* Air always moves from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pressure towards \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pressure.
* The wind’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is transferred to the ocean surface water as the air flows over it.



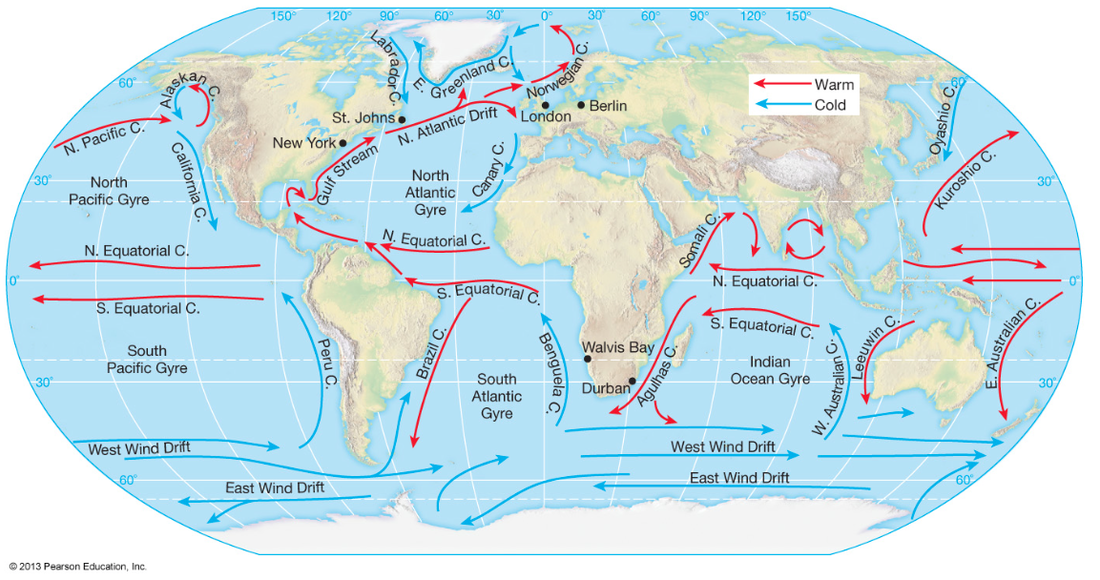
b) EARTH’S \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ EFFECT) = the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ path wind or water takes due to Earth’s rotation. The Coriolis effect forms the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ winds that drive ocean surface currents.



c) Location of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



2. Major \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ currents

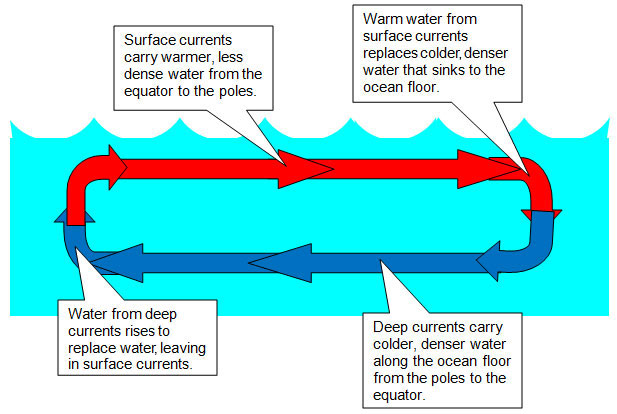


B) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ currents = a stream-like movement of ocean water far below the surface.

1. Three factors that control deep currents

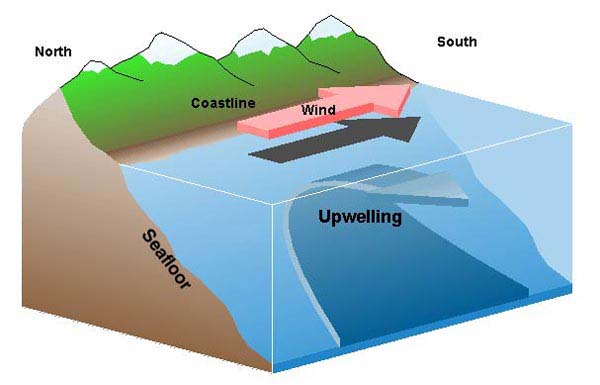
a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

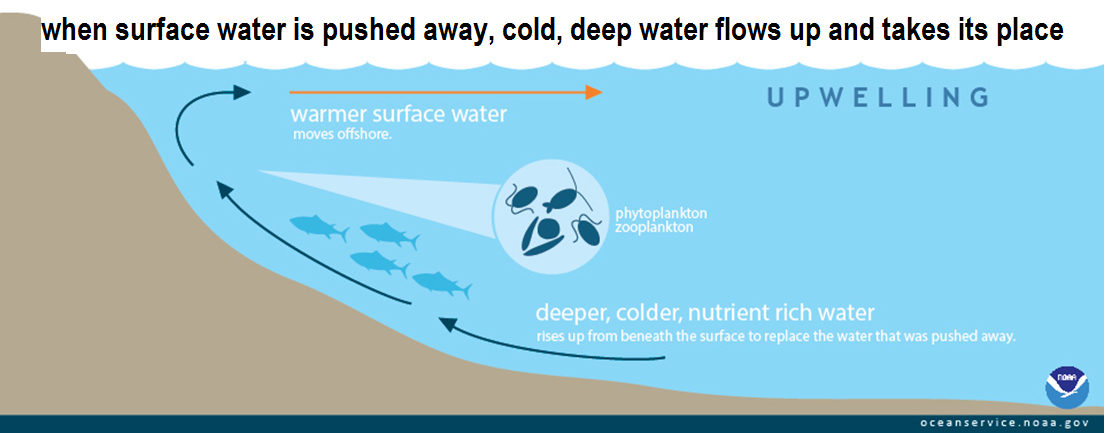
* cold, \_\_\_\_\_\_\_\_\_\_\_\_\_ polar water sinks and flows \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_, less dense equatorial water rises and flows \_\_\_\_\_\_\_\_\_\_
* in general, cold deep water from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ flows toward the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and
* warm shallow water from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ flows toward the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**b) wind at** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **-** surface winds can create an\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – a deep current that flows up to the surface along a coastline. How it works:

1. when wind blows along a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, it pushes water 90 degrees in the other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. The water moves away from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and out to sea.
3. Deep, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ water from below rises up to take its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.





c) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – how salty the water is

* + - water that is more **saline** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because it is more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - water that is less \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ stays on top because it is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dense

C) \_\_\_\_\_\_\_\_\_\_\_\_\_ current = a strong current caused by an underwater \_\_\_\_\_\_\_\_\_\_\_\_\_\_

