

CURRENT EVENTS LAB

OC-Currents Lab 2006.doc

DEFINE: gyre
upwelling
downwelling
Coriolis effect

OBJECTIVE:

To become familiar with the ocean's currents, and their relationships with the Earth's wind systems in creating weather patterns.

PROCEDURE:

Using the map provided, label all of the world's currents. Color each current with the color that corresponds to the current's temperature. Color the cool currents blue then color the warm currents red.

Next answer all of the current questions below using complete sentences. Feel free to expand upon your answers.

QUESTIONS:

1. Gyres formed from three currents in the Northern Hemisphere move in what type of a circular pattern?
2. What type of a circular pattern do the gyres move within in the Southern Hemisphere?
3. Which current could carry a vessel around the world without the assistance of any other current?
4. If you were traveling from South America to Labrador which currents would you take to arrive there?
5. How do warm currents become heated? How do cool currents become cooled?
6. Explain the Ekman Spiral, and the Ekman Transport.

7. What is the name of the ocean current off of the Virginia shore?
8. Which wind system affects the current off of the Virginia coast?
9. Why is upwelling beneficial to oceanic creatures, and to man.
10. The Brazil and South Equatorial Currents are affected by this wind system.
11. Which currents would bring ice bergs south?
12. Explain how the winds and the currents interact. Include factors such as temperature changes in the atmosphere, and waters, transfer of energy, direction of flow, etc.

MAIN OCEAN CURRENTS

