

Name _____ Date _____ Period _____

Ocean Currents & Ecosystems

Directions – Go to Classcraft.com to learn about ocean currents and ecosystems

Ocean Currents

1. A horizontal _____ of _____ through the ocean
2. _____ main types of currents – _____ and _____
3. _____ currents – the movement of water near the surface caused by _____
4. _____ currents – the movement of water far _____ the ocean's surface caused by changes in _____
5. The _____ drives _____ currents within Earth's oceans

Coriolis Effect

6. _____ – the apparent curvature of wind and ocean currents due to the _____ of Earth
7. Due to the Coriolis effect, ocean currents circulate _____ in the northern hemisphere and _____ in the southern hemisphere
8. Use arrows to show the direction the Coriolis Effect causes the currents to move in each hemisphere.

Northern Hemisphere



Southern Hemisphere



Ocean Currents Diagram

9. Ocean currents near the _____ bring _____ water to the areas in which they circulate (ex. Gulf Stream current)
10. Ocean currents near the _____ bring _____ water to the area in which they circulate (ex. California current)

Climate

11. Ocean currents help to _____
12. Ocean currents _____ water that has been unevenly _____ by the Sun's radiation
13. Regions located near warm ocean currents tend to have _____ and more _____ climates
14. Regions located near cold ocean currents tend to have _____ climates
15. Example – The _____ is located near a warm ocean current and experiences a much warmer climate than areas of Eastern _____ which are located near a cold ocean current.

Ocean Ecosystems

16. The ocean ecosystem is made of both _____ and _____ factors.
17. _____ factors in an ecosystem are things that are or were once _____ like snails, algae, _____, sea turtles and so on.
18. _____ factors are the things that are _____ such as, salinity, rocks, _____, water temperature, ocean currents, and _____.

Analysis Questions

19. What is the Sun's role in generating ocean currents?
20. Describe the Coriolis Effect and its impact on ocean currents.
21. Where does convection occur on Earth?
22. Why is water in California cooler than that in the Gulf of Mexico? (go back and look at the ocean current diagram)
23. What is the difference in the formation of surface and deep ocean currents?