Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Ocean Circulation Webquest

**Purpose**

The purpose of this lab is to investigate deep ocean circulation using internet resources.[[1]](#endnote-2)

**Procedure**

 **Materials**

1. ![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()Internet access

**Sequence of Steps**

1. Go to the website below and read about each of the following topics. (You will have to click on the link name for each topic to learn about the ocean currents and heat distribution.) <http://www.divediscover.whoi.edu/circulation/index.html>
2. Click on, ”Begin the Interactive”.
	1. Differential Heating
	2. Clickable Tank (Temperature zones)
	3. North Atlantic Circulation
	4. World Circulation
3. When you have learned about how ocean circulation patterns work, please answer the questions below.

**![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()Webquest Questions**

1. The curve of the earth, causes the sun’s rays to strike where?
2. The world’s surface ocean currents are driven by what force?
3. The density of seawater, which affects deep ocean circulation, depends on what?
4. If you traveled from the surface of the ocean to the bottom, what would you find out about density?
5. What would you find out about temperature and salinity traveling from the surface to the bottom?
6. Why does surface water sink in the North Atlantic?
7. What is the name of the world’s system of ocean currents that distribute heat around the world?

If you finish early, click on the Hot Topic link on the first page entitled,

“Going Vertical: Gauging Ocean Overturn Rates”

Or, enter the website: <http://www.divediscover.whoi.edu/hottopics/waterage.html>

Read about the ocean climates and how temperature and salinity relate

1. (2008). *Ocean Circulation Computer Lab*. Atwater High School Agriculture Department. [↑](#endnote-ref-2)