**Thermohaline Circulation Video Notes**

**The Endless Voyage: Deep Connections**

1. What things do ocean currents move?
2. What two factors influence currents?
3. The driving mechanisms of currents are pressure difference created by differences in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. What happens to cold, salty water?
5. How long does it take for water to complete a circulation circuit?
6. What two locations are the primary areas of water sinking from the surface to the sea floor?
7. How does the sea water get so cold and salty?
8. Thermohaline circulation is also called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
9. What controls the pattern of thermohaline circulation?
10. How will the thermohaline circulation change, for perhaps a hundred years, if there is enough warming to melt sea ice and increase arctic precipitation?
11. Ocean water that has distinct characteristics of temperature and salinity is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
12. These retain their temperature and salinity characteristics for about how long?
13. What is the most important factor these move?

**Thermohaline Circulation Follow Up**

Analyze the diagram of the Great Ocean Conveyor provided. Then, complete the chart below describing where/how ocean water moves based on its temperature and salinity.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Temperature (Warm or Cold) | Salinty (High or Low) | Location in Water Column (Shallow or Deep) | Direction of Travel in Pacific Ocean (N, S, E, or W) | Direction of Travel in Atlantic Ocean (N, S, E, or W) | Direction of Travel in Indian Ocean (N, S, E, or W) |
| Warm |  |  | S & W |  |  |
| Cold |  |  | North |  |  |



1. Color the diagram of the Great Ocean Conveyor Belt below using the information from the chart above and the key provided.

Low Salinity: Red

High Salinity: Blue

Change in Salinity: Purple

