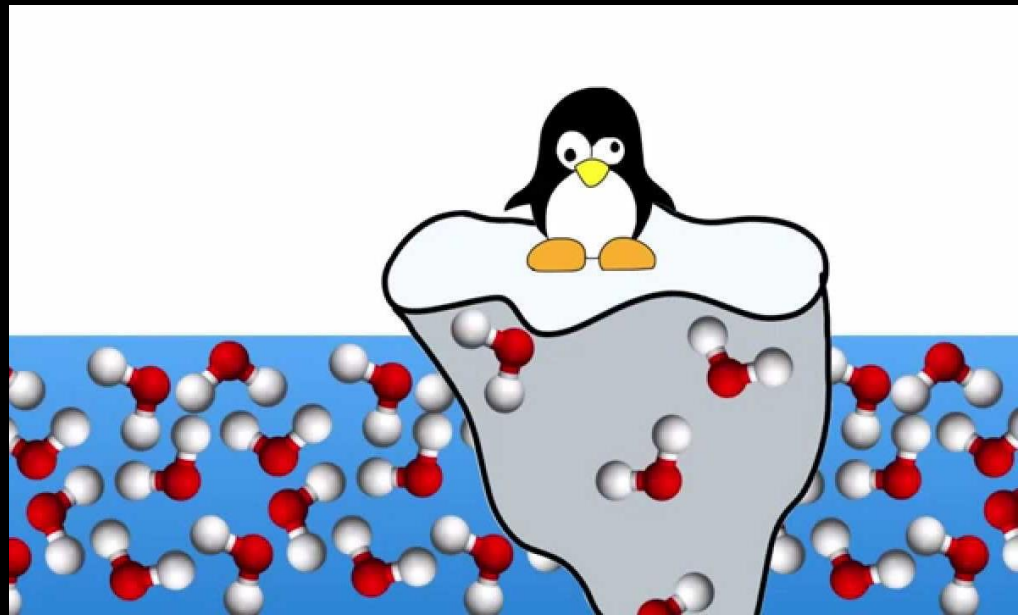


THERMOHALINE CIRCULATION

**Also Known As
Deep Currents
&
Density Currents**

DENSITY

- IS the compactness of the particles in a substance
- CAUSES substances to sink and float
 - Lower density (than other substance) floats
 - Higher density (than other substance) sinks

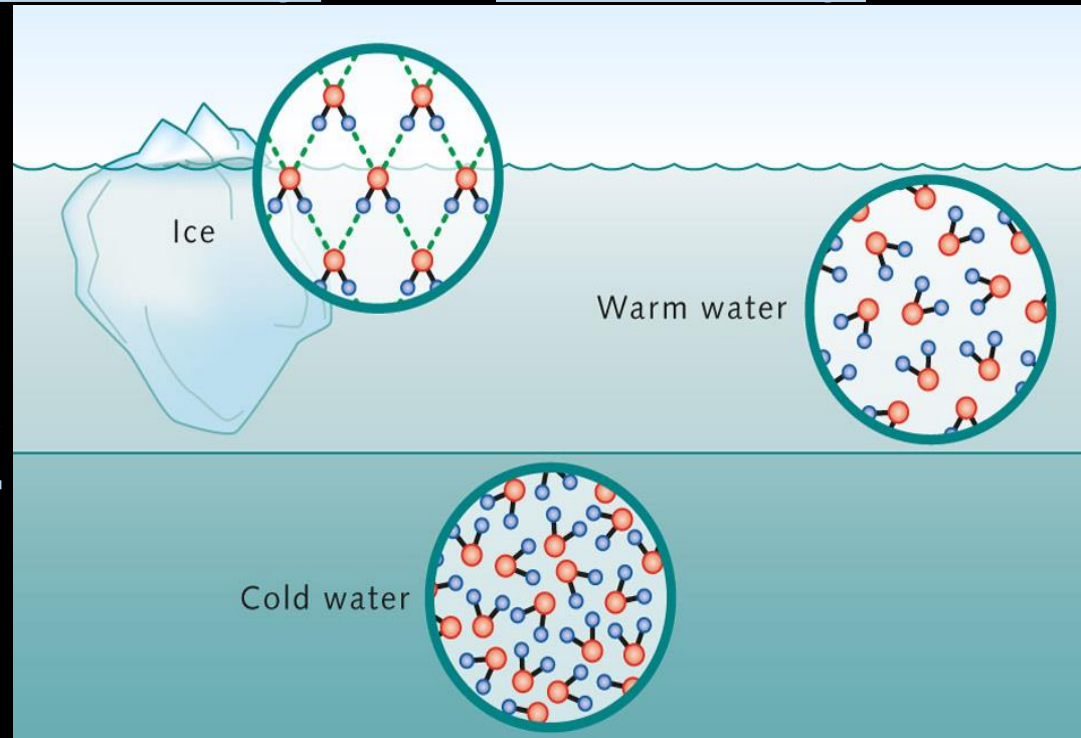


LAB: DENSITY

- **Complete PART of the Lab:**
 - **Hypothesis**
 - **Procedure**
 - **Data**

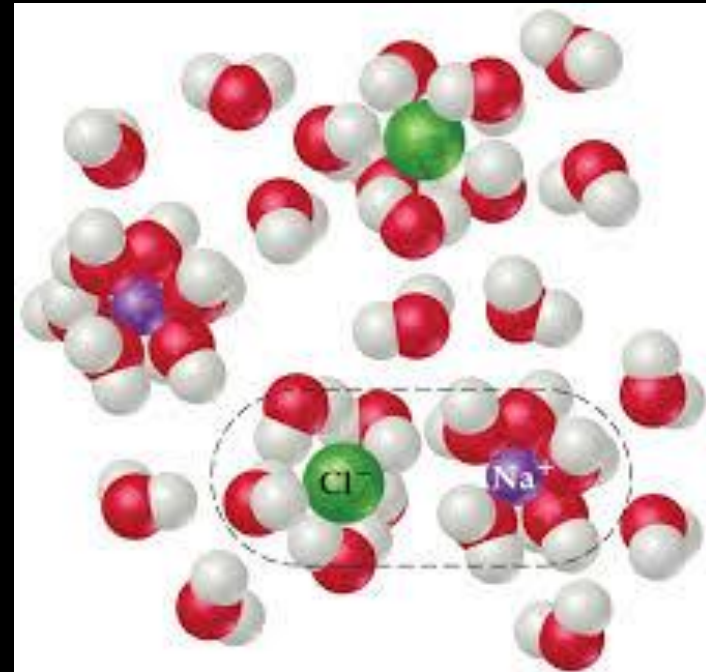
DENSITY

- **CHANGES based on temperature & salinity** (saltiness)
 - **Temperature & density are inversely related:**
 - **High temp = low density**
 - **Low temp = high density**



DENSITY

- **CHANGES** based on temperature & salinity (saltiness)
 - Salt pulls water molecules closer together = increase density
 - Salinity & density are directly related:
 - High salinity = high density
 - Low salinity = low density



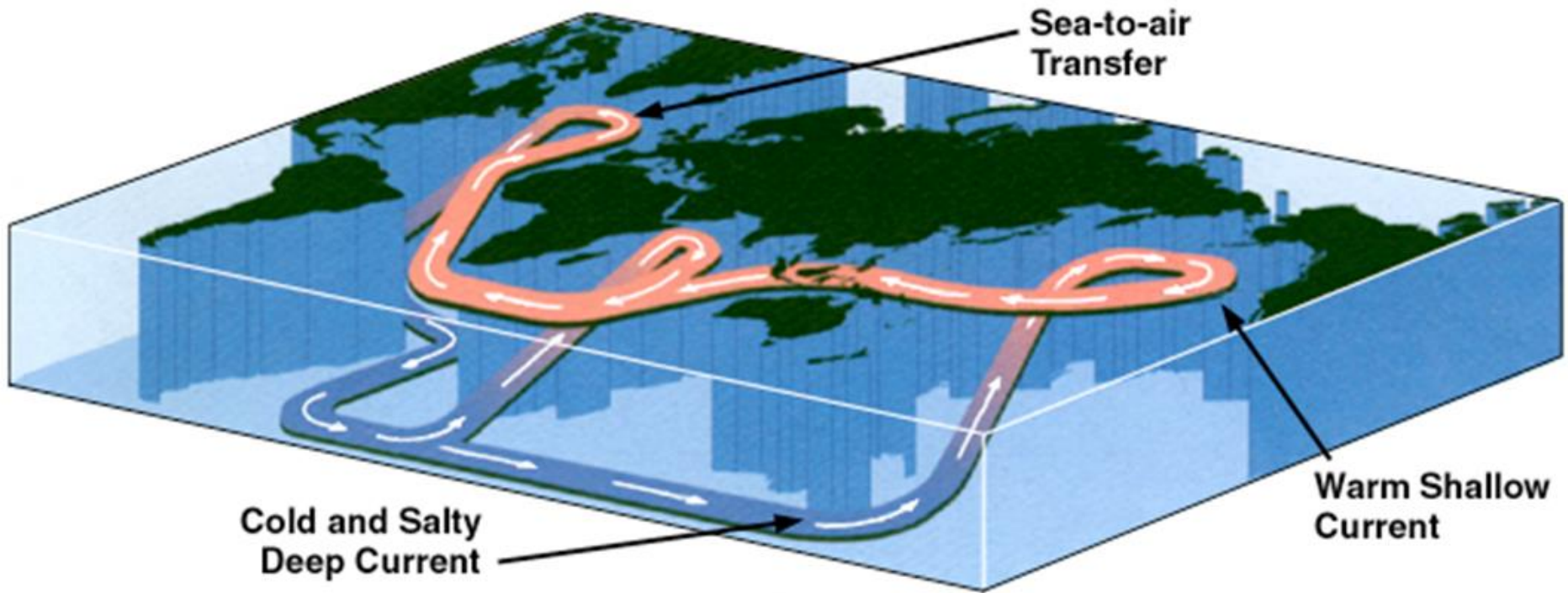
THERMOHALINE CIRCULATION



THERMOHALINE CIRCULATION

- Thermo = heat, haline = salt, & Circulation = cyclical movement
 - AKA density currents
 - AKA deep currents (but do reach surface)
 - AKA Great Ocean Conveyor/Belt

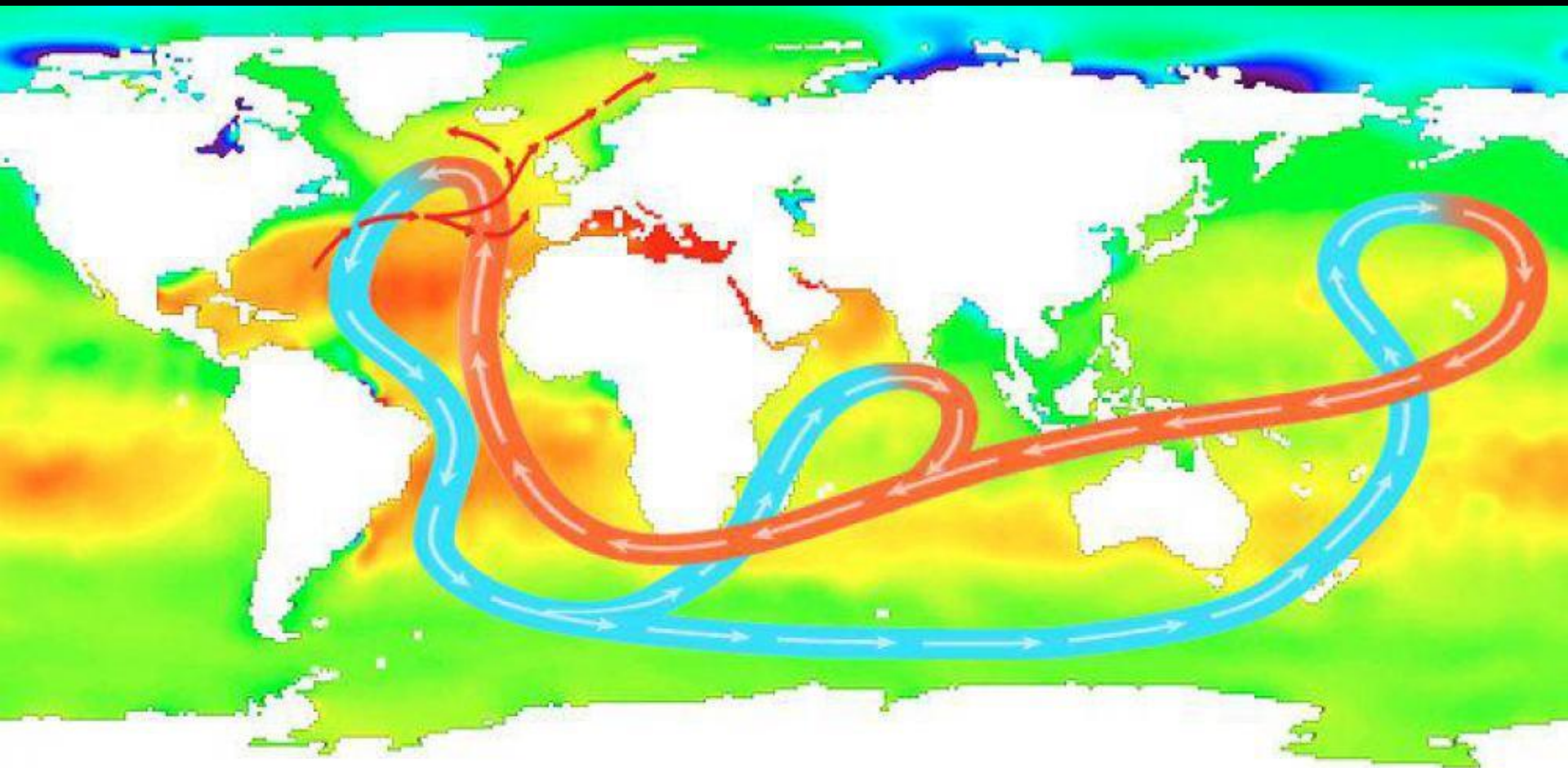
THERMOHALINE CIRCULATION



THERMOHALINE CIRCULATION

- IS the movement of water based on differences in density
 - Cold & salty water sinks & slides along bottom of oceans
 - Hot & less salty water rises & slides along surface of oceans
 - No differences in density = no global circulation of water

SALINITY VS. TEMPERATURE



THERMOHALINE CIRCULATION

- MOVES water, heat, & nutrients around the planet through connected oceans
- Can take a thousand years to make a complete cycle

THERMOHALINE CIRCULATION

