

Name _____



Arctic Dynamics

Directions: Use the word bank to complete each sentence. Write the correct term on each blank line.

salinity

sea ice

thermohaline circulation

freshwater

density

surface currents

temperature

brine

deep water

melting

1. The Arctic Ocean has lower _____ than many other oceans because melting ice adds large amounts of freshwater.
2. When **sea ice** forms, salty _____ sinks into the water below, increasing its salt content.
3. Colder water has a higher _____ which causes it to sink and form deep water layers.
4. The movement of ocean water caused by both temperature and salinity differences is called _____.
5. As Arctic temperatures rise, increased _____ of sea ice adds more freshwater to the surface.
6. The addition of _____ can weaken the formation of deep cold layers in the Arctic Ocean.
7. _____ move water across the top layer of the Arctic and can push ice toward or away from coastlines.
8. The formation of _____ helps cool the ocean surface and reflect sunlight.
9. Warmer _____ near the surface can slow the sinking of cold water below.
10. _____ forms when the coldest, saltiest water sinks in the Arctic, contributing to global ocean patterns.