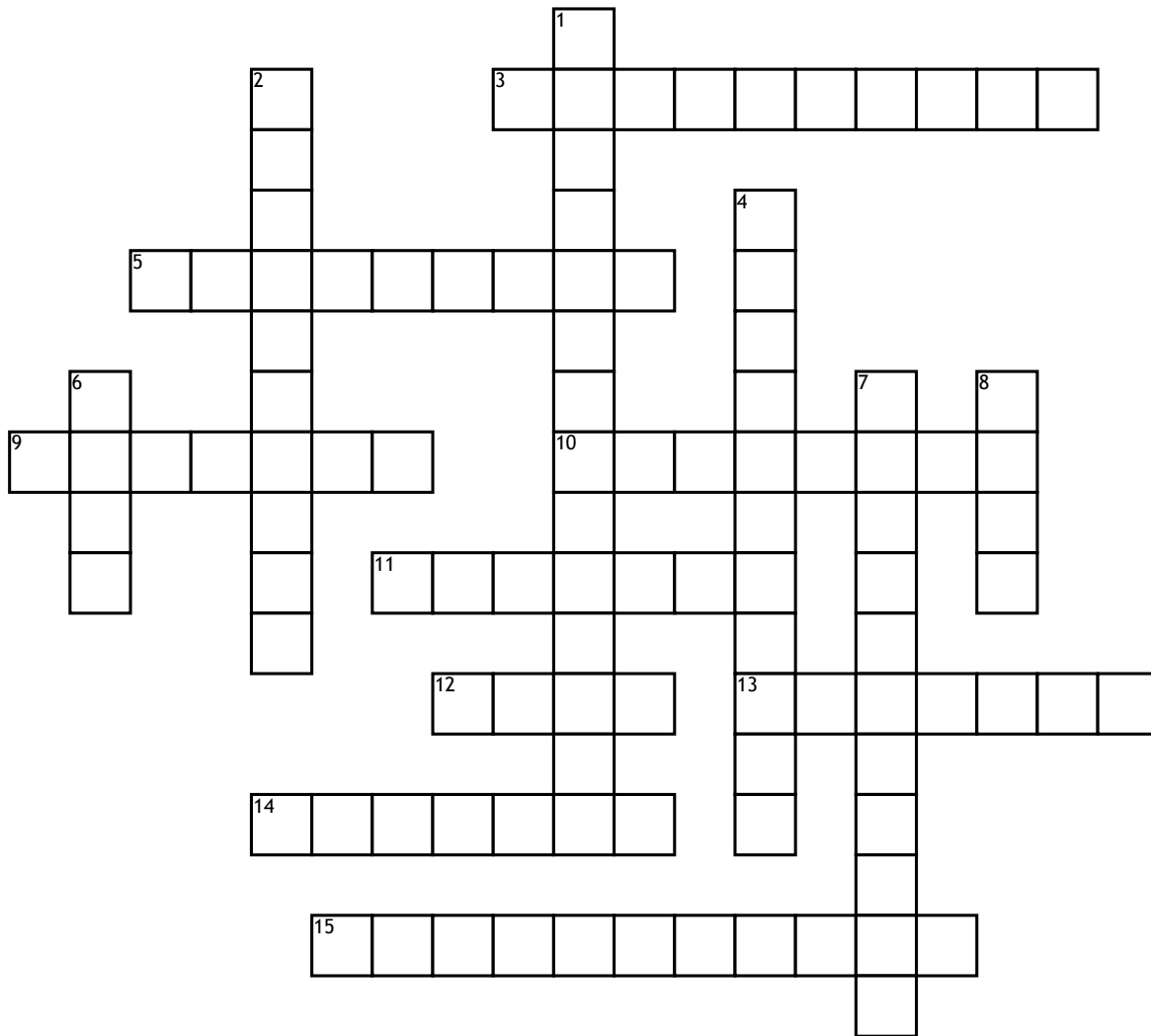


Name: _____

Date: _____

Circulation in atmosphere and oceans



Across

3. transfer of energy due to movement of matter, for example when warm air rises and transfers thermal energy to the cooler air it encounters

5. transfer of energy by waves such as when the sun's rays warm the atmosphere

9. also known as the energy of motion. It can be transferred from wind to the ocean when waves and currents are formed by the wind.

10. the amount of dissolved salt in a quantity of water. Increasing salinity increases the density of water and can be a factor in producing a density driven current

11. horizontal current at the ocean's surface. Global winds, continental deflection and the Coriolis effect influence surface currents.

12. current of water below the surface of the ocean. They are influenced by density, gravity, Coriolis effect, deflection by land masses

13. energy that can be thought of as heat and is related to the motion of particles in a substance. On Earth it originates with the sun and it can be cycled through movement of winds and water.

14. mass per unit volume of a material. Important factor in creating convection cells

15. a measure of the amount of energy the molecules of a substance have. Important in determining the density of air and water and therefore related to air pressure and formation of currents

Down

1. The curving of winds and currents across the Earth's surface due to the Earth's rotation

2. transfer of thermal energy from one particle to another when the particles are in contact with each other for example when a warm surface heats the air above it

4. deflection of currents as they meet continents

6. horizontal movement of air from high pressure to low pressure caused by unequal heating of the atmosphere

7. the weight of the atmosphere pushing down on a particular area, influenced by the density of that air

8. circular pattern of Earth's surface currents