**Chapter 7**

1. Distinguish between weather and climate.  Summarize how warm fronts, cold fronts, high pressure air masses, and low pressure air masses affect weather.
2. Describe at least three factors which contribute to global air circulation patterns. Explain each and their importance to life in northern latitudes.
3. Name the major wind patterns and their Convection cells.
4. Describe the process of a convection cell.
5. How are the ocean and atmosphere linked?  What is El Nino- Southern Oscillation? La Nina? Which wind pattern is responsible for this weather phenomenon? Check Supplement 7 (17th edition) 5 (18th edition) to discuss what happens in Tornadoes and Tropical cyclones
6. Draw and label an ocean current circulation.  What is a Gyre? Explain the importance of the gyre in moving warm equatorial waters to colder northern areas.
7. What is a Biome? How does climate and vegetation play a role in determining a biome?
8. Describe the three major types of biomes (Desert, grasslands and forests) How does climate and vegetation vary with latitude and altitude?
9. Describe the three major types of desert?  How do they differ in climate and vegetation? How do animals and plants survive?
10. Describe the three major types of grasslands.  How do they differ in climate and vegetation? What is a Savanna?  What is permafrost?
11. Describe the three major types of forests?  How do they differ in climate and vegetation? Why is biodiversity so high in tropical rainforests? Why is the soil nutrient poor in tropical rainforests? How do most coniferous trees survive in cold winters in the boreal forests?  What is a coniferous or temperate rainforest?
12. What ecological role do mountains play?
13. Describe the importance of temperature and precipitation in determining what parts of the earth’s land are covered in desert, arctic tundra, temperate grassland, tropical rain forest, temperate deciduous forest.