

## Unit 6 Study Guide

You should know...

### **6.1 - Weather and Atmospheric Water**

- How clouds influence weather
- What variables make up local weather
- Humidity vs relative humidity
- How convection relates to the water cycle
- Why clouds are visible
- What a cloud free sky means
- Why clouds form
- Why San Francisco gets foggy

### **6.2 - Climate and Its Causes**

- What part of the earth gets the most solar radiation
- What happens at the ITCZ and what it stands for
- Global wind belts and pressure systems (Study your diagram)
- Polar and subpolar jet and their effects
- Density in the atmosphere
- Hadley cells and Ferrell Cells

### **6.3 - World Climates**

- How to determine what climate zone you're in
- Microclimates vs mesoclimates vs macroclimates
- How much of the earth is desert, not dessert.
- What makes a dry climate zone
- Koppen climate classifications
- Locations and characteristics of various climates

### **6.4 - Changing Weather**

- Types of fronts
- How fronts form
- Air masses
- Results of fronts in Summer and Winter
- Where air masses form
- Air mass density
- Why winds form
- Warm rises (low), Cool sinks (high)
- Differences in types of fronts

### **6.5 - Storms**

- What requirements are there for a blizzard
- What type of weather is most likely to be experienced in the US
- How thunderstorms form
- Relationship between lightning and thunder
- How convection relates to thunderstorms
- When and why tornadoes are most common
- Why hurricanes take certain common paths

### **6.6 - Weather Forecasting**

- Isobars, isotherms, isotachs
- Where the acronym RADAR comes from
- What radiosondes measure
- Weather tools and what they measure
- What changing barometric pressure means
- Technology meteorologists use
- How pressure cells are identified on a weather map
- Isotach values at high altitudes