## **Notes for Thunderstorms**

## • Three Ingredients:

- 1. Moisture (more frequent near large bodies of water)
- 2. Unstable air (warm, humid days with air that continues to rise)
- 3. Lift (mountains, weather fronts, and rising air masses)
- Life Cycle:
  - 1. Towering cumulus stage (cloud grows vertically strong updrafts)
  - 2. Mature stage (updrafts & downdrafts dangerous stage)
  - 3. Dissipating stage (mostly downdrafts)
- Multi-cell Cluster Most thunderstorms occur in clusters, which join together to form a squall line that can extend for hundreds of miles
- <u>Lightning</u> convection in the clouds cause water molecules to rub together, creating static electricity. (Electrons – and protons +)
- <u>Thunder</u> heat from lightning causes rapid expanding and contracting of air that generates sound waves