CH 24

1. Thermo = Heat
Dynamics = movement

2. Thermo is primarily concerned with macroscopic processes.

3. Lowest on Celsius = $-273.15\ ^\circ C$
Lowest on Kelvin = $0\ K$

4. Ice melts at 273 K.
Water boils at 373 K.

5. The 1st Law of thermo is the law of conservation of energy applied to thermal systems.

A 6. When work is done on a system its Internal Energy Increases;
Temperature also Increases.

7. HEAT ADDED (TO SYSTEM) = INTERNAL ENERGY + WORK DONE BY SYSTEM (think about this one awhile)

8. $\Delta U = Q - W_{\text{DONE BY SYS}}$
SO:
a. WORK DONE ON SYS U INCREASES
b. WORK DONE BY SYS U DECREASES

9. Adiabatic → No heat enters or leaves (no leaky sides)

10. Volume ↓ T ↑
Volume ↑ T ↓

11. Rising air usually cools (if adiabatic)

12. Sinking air usually increases temp.

13. It defines direction of Heat Flow from Hot to Cold