

Internal Energy and Temperature

- All objects have “internal energy” (measured in Joules)
 - random motion of molecules
 - » kinetic energy
 - collisions of molecules gives rise to pressure
- Amount of internal energy depends on
 - temperature
 - » related to average kinetic energy per molecule
 - how many molecules
 - » mass
 - “specific heat”
 - » related to how many different ways a molecule can move
 - translation
 - rotation
 - vibration
 - » the more ways it can move, the higher the specific heat