



Because of this interaction between the gas particles in the container and the movable wall of the container, what kind of energy was transferred from the gas particles to the movable wall?



Because the gas was heated, what type of interaction was there between the heater and the gas particles in the container?



What type of energy was transferred from the heater to the gas particles?



Draw a Micro I/O Energy Diagram for the interaction when the gas was heated in a container with a movable wall.

### Micro I/O energy diagram Heating Gas while Volume Changes

Temp.	Mass	Volume	Avg. KE	Avg. Speed	Total Number of Particles	Number of Collisions/ Sec/Area	Oomph/ Collision	Pressure

Previously, when you heated the gas at constant volume, the Law of Conservation of Energy could be written as follows:

$$\text{Energy Input} = \text{Energy Changes} + \text{Energy Output}$$

Because the energy input was heat energy, the energy change was increase in kinetic energy, and there was no energy output, the Law of Conservation of Energy becomes:

$$\text{Heat energy} = \text{Increase in average kinetic energy}$$