

Chap 5 Thermochemistry
movement heat

ENDOTHERMIC - heat enters (absorbed)
gets hotter

EXOTHERMIC → heat exits (released)
gets colder

Oct 14-7:40 AM

System vs Surroundings

Point of view
for Endo/Exo

The diagram illustrates the concept of a system and its surroundings. A dashed black box is labeled 'System'. A blue arrow labeled 'Endo' points from the surroundings into the system, representing an endothermic process. A pink arrow labeled 'Exo' points from the system into the surroundings, representing an exothermic process. The area outside the dashed box is labeled 'Surroundings' and contains several green arrows pointing in various directions, representing the environment.

Oct 14-7:59 AM

$\overset{\text{hot}}{\text{↗}} \text{ vs. } \underset{\text{cold}}{\text{↘}}$
molecular motion

EXO - Spontaneous, $\ominus \Delta H$
ENDO - Requires work on the system, $\oplus \Delta H$

Oct 14-8:03 AM

Heat \rightarrow Joules (J) $\frac{\text{kg} \times \text{m}^2}{\text{sec}^2}$

\hookrightarrow ENERGY

KE = $\frac{1}{2} m v^2$

J = kg $\left(\frac{\text{m}}{\text{sec}}\right)^2$

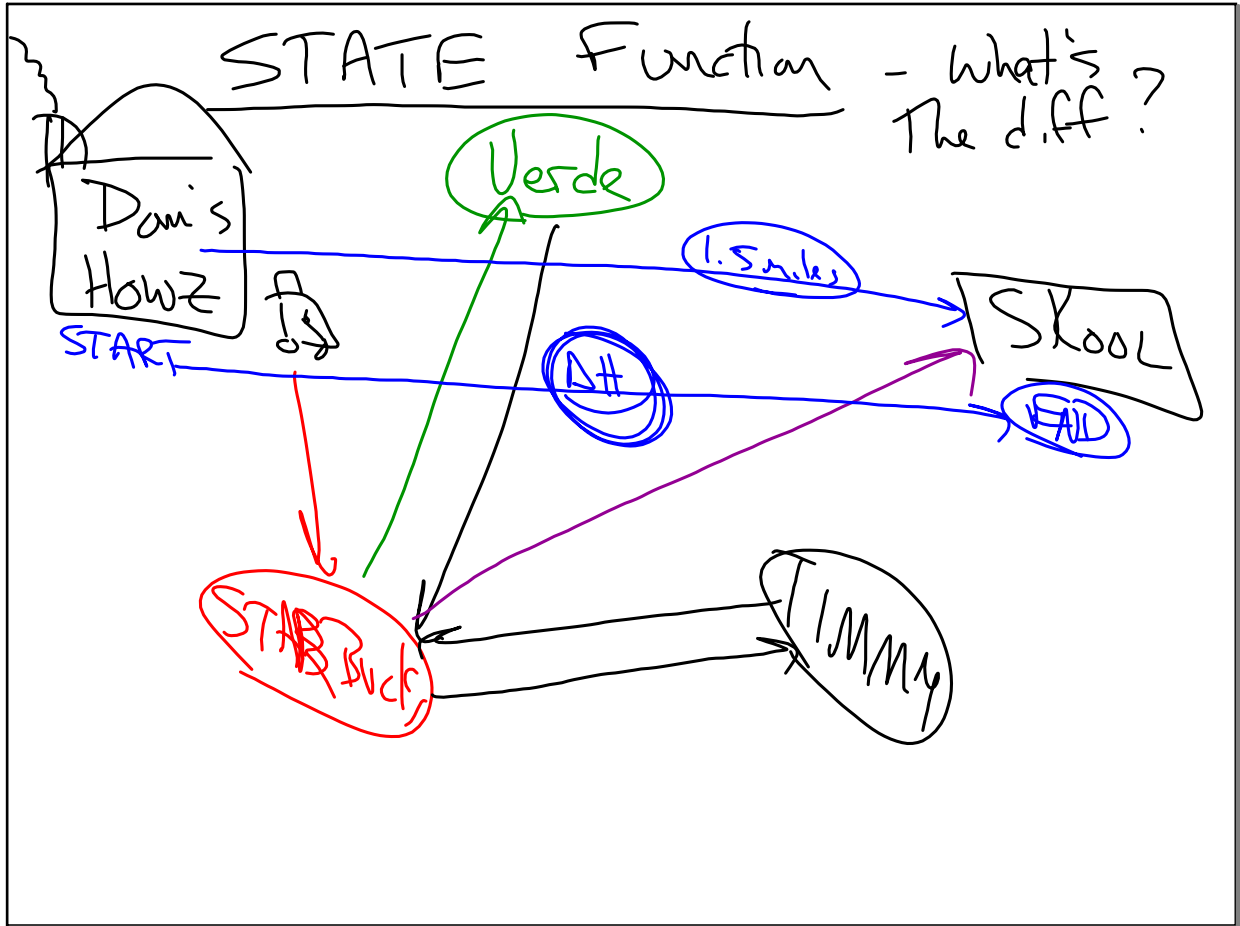
$J = \frac{\text{kg} \times \text{m}^2}{\text{sec}^2}$

PE = mgh

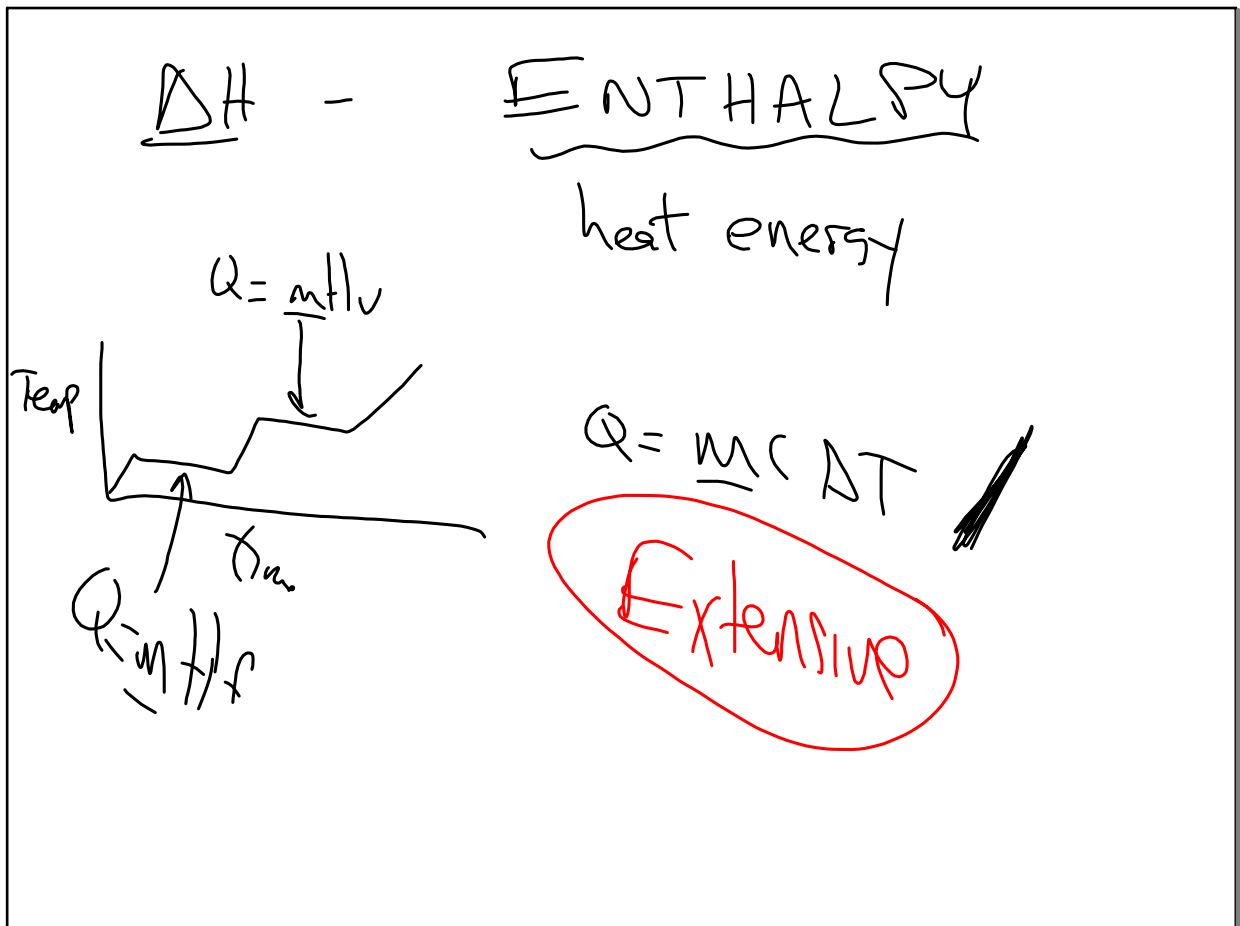
PE = $\frac{\text{kg}}{1} \times \frac{\text{m}}{\text{sec}^2} \times \frac{\text{m}}{1}$

PE = $\frac{\text{kg} \times \text{m}^2}{\text{sec}^2}$

Oct 14-8:10 AM



Oct 14-8:15 AM



Oct 14-8:21 AM

$$\Delta H = H_{\text{prod}} - H_{\text{reactants}}$$

exo

endo

Oct 14-8:23 AM

HW

p201 ish

5	4, 12, 14, 20, 26
---	-------------------

Oct 14-8:27 AM