

# energy transferred out of system to surroundings

KINETIC ENERGY –  
DUE TO

Goes OUT  
of the system

SYSTEM \_\_\_\_\_ EITHER  
(gains or loses)

kinetic energy

(increase or decrease)

changes \_\_\_\_\_ of particles

– they move \_\_\_\_\_

\_\_\_\_\_ decreases.

OR

potential energy

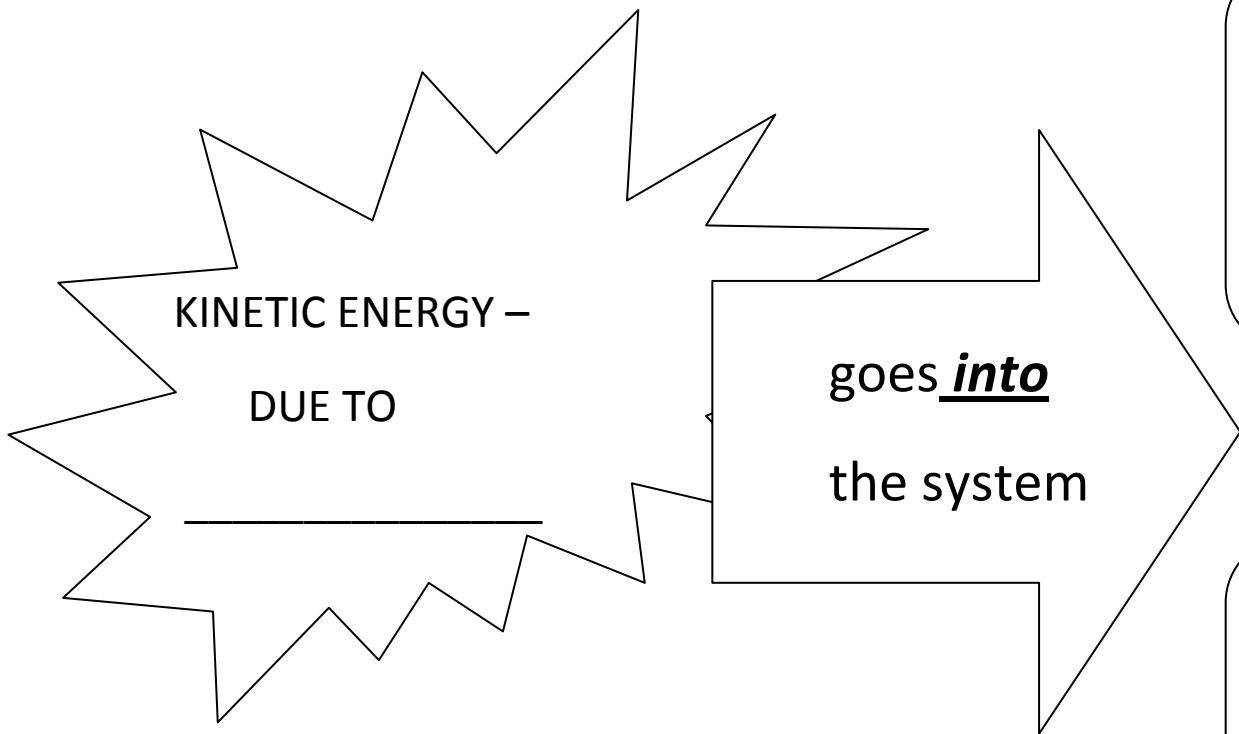
(increase or decrease)

changes \_\_\_\_\_ of

particles – attractions \_\_\_\_\_

enthalpy \_\_\_\_\_ (increases or decreases).

# energy transferred into system from surroundings



SYSTEM \_\_\_\_\_ EITHER  
(gains or loses)

kinetic energy

(increase or decrease)

changes \_\_\_\_\_ of  
particles – they move \_\_\_\_\_  
\_\_\_\_\_ increases.

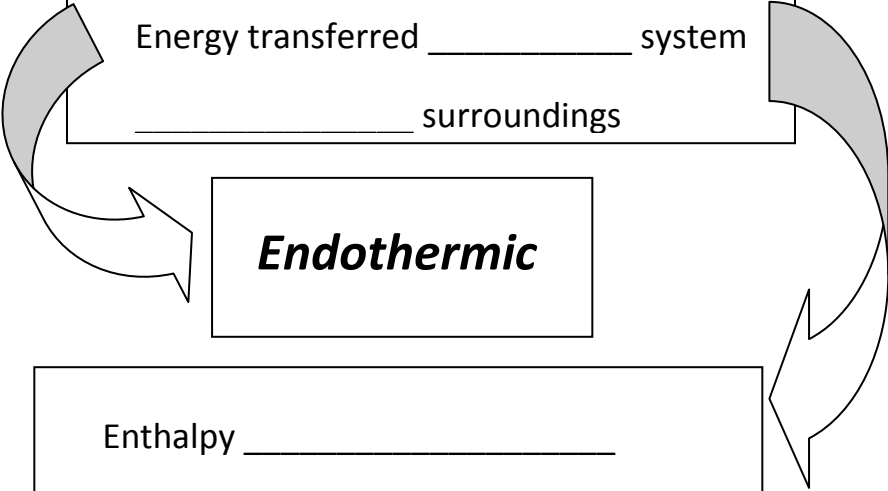
OR

potential energy

(increase or decrease)

changes \_\_\_\_\_ of  
particles – attractions \_\_\_\_\_  
\_\_\_\_\_ increases.

Energy transferred \_\_\_\_\_ system  
\_\_\_\_\_ surroundings



**Endothermic**

Enthalpy \_\_\_\_\_

Since energy went \_\_\_\_\_

Draw enthalpy graph going

\_\_\_\_\_ hill

The products have \_\_\_\_\_ PE

(otherwise known as enthalpy)

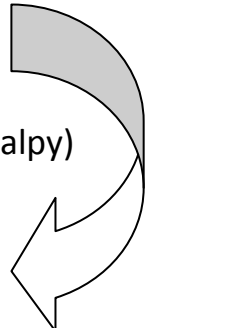
So, the products are

\_\_\_\_\_ stable

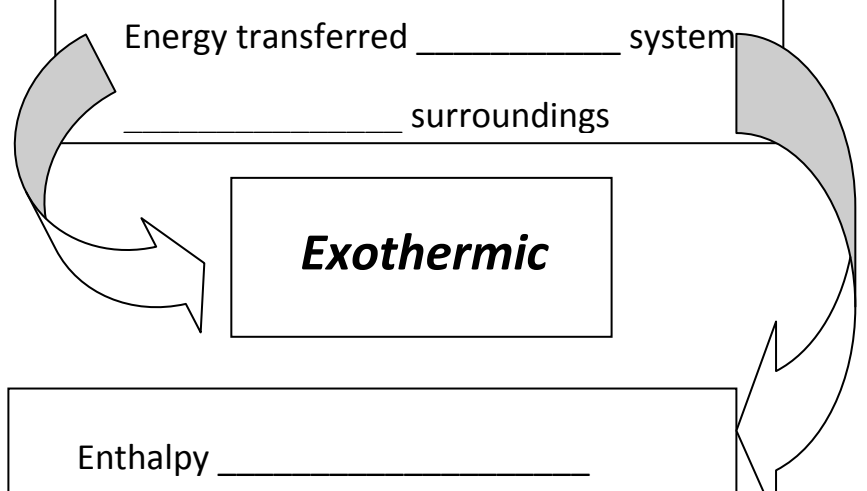
And the reaction is \_\_\_\_\_

based on enthalpy

Since things want to become more stable



Energy transferred \_\_\_\_\_ system  
\_\_\_\_\_ surroundings



**Exothermic**

Enthalpy \_\_\_\_\_

Since energy went \_\_\_\_\_

Draw enthalpy graph going

\_\_\_\_\_ hill

The products have \_\_\_\_\_ PE

(otherwise known as enthalpy)

So, the products are

\_\_\_\_\_ stable

And the reaction is \_\_\_\_\_

based on enthalpy

