Ch. 5 Thermochemistry

Energy:

The capacity to do work and transfer heat

Endothermic reactions take place when heat is **ADDED** to the system.

Exothermic reactions take place when heat is **REMOVED** from the system

(forget everything you learned about breaking/forming bonds in Bio)

Hess's Law

Used to calculate ΔH for a reaction

Created by Germain Henri Hess

Also known as Герман Иванович Гесс

Which reads as: German Ivanovich Gess

Calorimetry

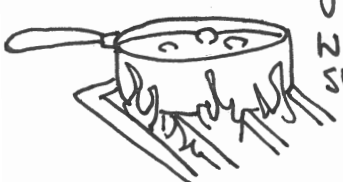
involves changes in temperature:

$$\Delta T = T_F - T_I$$

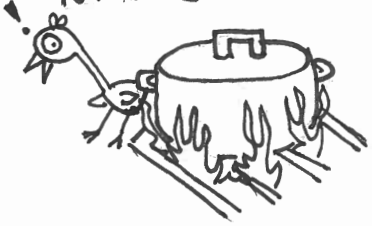
HEAT is calculated by

$$q = mC\Delta T \text{ or } q = m$$

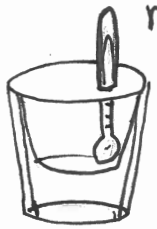
Open System:
Matter + energy are exchanged with surroundings



Closed System:
energy can be exchanged with surroundings



Isolated System:
nothing is exchange



Calorimeter

by Isabel Losacco, SHS '27

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