

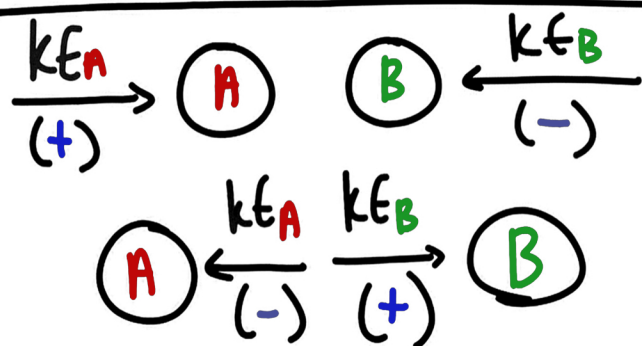
Noteset 4B (Part 2) - In Class Noteset

Energy Transfer

Energy Transfer : Collisions

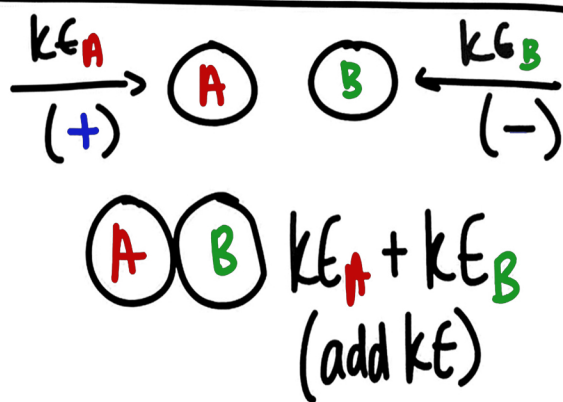
Elastic Collision

Particles collide then bounce off in opposite directions.



Inelastic Collisions

Particles collide then stick together.



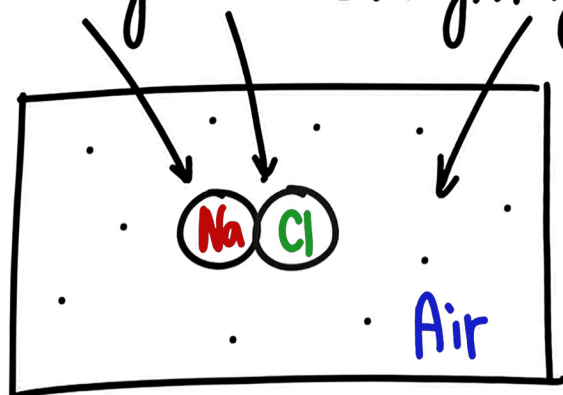
Defining Matter

System

Surroundings

Focusing On

Everything Else



Focusing on the NaCl

System

NaCl

Surroundings

Air

Energy Flow

Signs | $+$: gain E | $-$: lose E

Exothermic ($-$)

System $\xrightarrow{\text{Energy}}$ Surroundings
Higher Energy Lower Energy

System loses heat ($-$)	Surrounding gains heat ($+$)
---------------------------	--------------------------------

Endothermic ($+$)

System $\xleftarrow{\text{Energy}}$ Surroundings
Lower Energy Higher Energy

System gains heat ($+$)	Surroundings lose heat ($-$)
---------------------------	--------------------------------

Heat Flow Examples

System	Surr.
Pizza	Air
"hot"	"cold"
[High E]	[Low E]
$\xrightarrow{\text{Energy Flow}}$ Exothermic	

System	Surr.
ice cream	Air
"cold"	"hot"
[Low E]	[High E]
$\xleftarrow{\text{Energy Flow}}$ Endothermic	