

Energy Changes in Chemical Reactions

endothermic – more energy goes into the reaction than goes out (absorbs heat and cools the surrounding area)

exothermic – more energy goes out of the reaction than goes in (releases heat and heats the surrounding area)

burning match	endothermic	exothermic
making ice cubes	endothermic	exothermic
melting ice cubes	endothermic	exothermic
evaporation of water	endothermic	exothermic
baking bread	endothermic	exothermic
photosynthesis	endothermic	exothermic
cellular respiration	endothermic	exothermic

Vinegar and baking soda reaction

Vinegar temperature (°C)	Temperature after adding baking soda (°C)	Change in temperature (°C)

This chemical reaction is: endothermic or exothermic or neither

Baking soda and calcium chloride reaction

Baking soda solution temperature (°C)	Temperature after adding calcium chloride (°C)	Change in temperature (°C)

This chemical reaction is: endothermic or exothermic or neither

What type of reaction is taking place?

Alka-seltzer + water	endothermic	exothermic
instant ice pack	endothermic	exothermic
instant heat pack	endothermic	exothermic