Energy in Reactions

10th Grade

Exothermic and endothermic, and the bond-energy explanation.

EXOTHERMIC

- Releases energy to the surroundings
- Temperature of surroundings rises
- Bond making releases more than breaking absorbs
- Combustion, respiration, neutralisation
- Products have less energy than reactants

ENDOTHERMIC

- Absorbs energy from the surroundings
- Temperature of surroundings falls
- Bond breaking absorbs more than making releases
- Photosynthesis, thermal decomposition
- Products have more energy than reactants

THE DIFFERENCE THAT MATTERS

Every reaction breaks bonds and makes bonds. Which process dominates decides whether it warms or cools its surroundings.

A cold pack feels cold because the reaction inside is taking energy from your hand.