

Name _____

Entropy Unveiled: Exploring the Second Law of Thermodynamics

Short Answer Key

1. Answers may vary but could include a room getting messier, ice melting, or perfume scent spreading.
2. The second law of thermodynamics states that in a closed system, usable energy decreases over time, leading to an increase in entropy, which measures the level of disorder or randomness in the system.
3. Reversible changes are those that can be undone without increasing overall entropy. They differ from irreversible changes because they maintain or reduce entropy.
4. Understanding entropy is important in chemistry to predict chemical reactions, reactions' spontaneity, and the behavior of substances under various conditions.
5. Answers may vary but could include melting and freezing of water or reversible chemical reactions.

