

Name _____

Water's Dance: The Changing Density with Temperature

Short Answer Key

1. Water behaves differently due to the formation of a unique crystalline structure in ice and the influence of hydrogen bonds.
2. Water reaches its maximum density at approximately 4 degrees Celsius (39.2 degrees Fahrenheit). As it cools below this temperature, it becomes less dense.
3. When water freezes, it forms a hexagonal lattice structure, with each water molecule bonded to four others through hydrogen bonds. This structure creates open spaces, making ice less dense than liquid water.
4. Water's density anomaly is why ice cubes float in your drink, helping to keep it cool.
5. Water's density anomaly influences weather patterns and ocean currents, affecting climate and the movement of water masses.

