

Name \_\_\_\_\_

## The Temperature Tango: Exploring Phase Transitions

### Short Answer Key

1. Temperature determines when phase transitions occur and at what specific temperature.
2. The boiling point of water is 100 degrees Celsius, and at this temperature, water turns into water vapor.
3. An example from everyday life is water boiling in a kettle on the stove.
4. A substance needs to reach its specific melting or boiling point because these temperatures correspond to the energy required to break or form intermolecular forces, leading to a phase transition.
5. During melting, particles in a solid gain energy, which allows them to break free from their fixed positions and move more freely.

