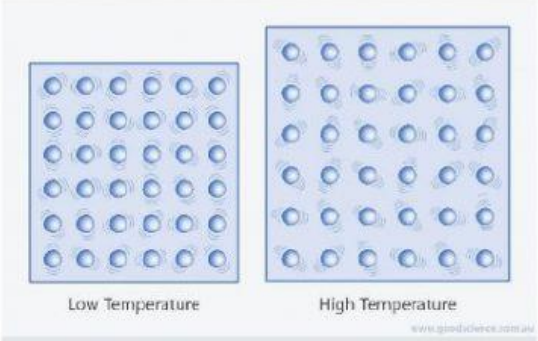
NAME : _____ CLASS : _____

9.3 Principle of Expansion and Contraction of Matter

1. *Expansion of solid*

- The particles in a solid **vibrate at a fixed position**.
  - When the solid is heated, the **particles vibrate _____ and move further apart** from one another
- This causes the **volume of the solid to _____** because the **solid expands**



Thermal Expansion of Matter

2. *Contraction of solid*

- When solid is cooled, the **particles vibrate _____** and **move closer to one another**
- This causes the **volume of solid to _____** because the **solid contracts**

3. *Expansion of liquid and gas*

- Particles in liquid and gas move freely.
- When the liquid and gas are _____, the particles move faster and randomly.
- The distance between particles also _____.
  - This causes the **volume of the liquid and gas** _____ because liquid and gas expand

4. *Contraction of liquid and gas*

- When the liquid and gas are _____, the particles move slower and closer to one another
- This causes the volume of the liquid and the gas to _____ because the liquid and the gas contract.

LIVEWORKSHEETS