

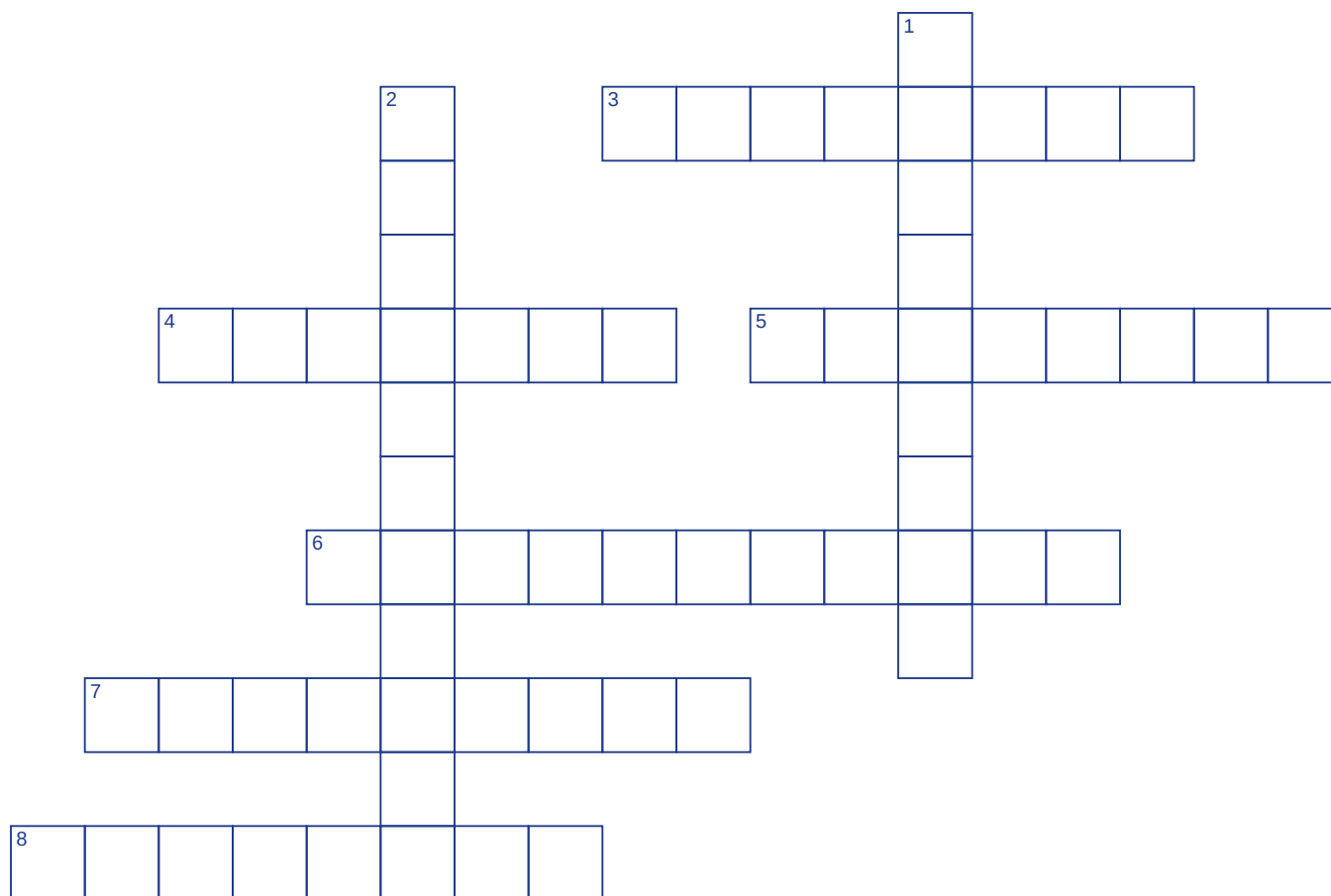
The Particle Model of Matter Crossword

All matter, solid, liquid, or gas, is made of tiny particles that are always moving and have spaces between them ([Topic](#), [Outcome](#), [Details](#)). This puzzle reviews words tied to that idea: how particles arrange themselves in a solid, liquid, or gas ([Details](#)), how heating and cooling cause a phase change and make matter expand or contract ([Guiding question](#), [Outcome](#), [Details](#)), how a thermometer uses that expansion to measure temperature ([Details](#)), and how density, buoyancy, viscosity, and compressing a gas or liquid connect back to the spacing of particles ([Details](#), [Topic](#), [Outcome](#)). Solve the clues below using what you know about how particles behave.

How to play

- Read each clue. Its number matches a numbered square in the grid.
- Write one capital letter in each square. There are 6 words across and 2 words down.
- Crossing words share a letter, so check it fits both. The answer key shows the finished grid.

Puzzle grid



Clues

Across

3. A tiny piece of matter that makes up all substances. (8)

4. A comparison of how much matter is packed into a certain amount of space. (7)
5. The upward force that allows objects to float in a fluid. (8)
6. A tool that measures temperature using the expansion and contraction of a liquid. (11)
7. The increase in size or volume when matter is heated. (9)
8. To squeeze or reduce the volume of a gas or liquid under pressure. (8)

Down

1. How thick or sticky a liquid is, affecting how easily it flows. (9)
2. A change from one state of matter to another, such as melting or freezing. (11)

Answer key

- **1 down:** VISCOSITY
- **2 down:** PHASECHANGE
- **3 across:** PARTICLE
- **4 across:** DENSITY
- **5 across:** BUOYANCY
- **6 across:** THERMOMETER
- **7 across:** EXPANSION
- **8 across:** COMPRESS

