

The Particle Model of Matter: Matching Game

All matter, from your desk to the air you breathe, is made of tiny particles that are always moving and have spaces between them ([PDF p.1](#), [Knowledge](#)). In this game you will match key words like particle, vibrate, solid, density, volume, compress, arrange, and movement to their meanings. Matching these terms will help you explain how particles behave in solids, liquids, and gases, and how their movement and arrangement shape properties like density and compressibility ([Understanding](#), [Knowledge](#)).

How to play

1. Look at the word list and the meanings list.
2. Draw a line, or write a letter and number pair, to match each word to its correct meaning.
3. Each word has exactly one correct match.
4. Use what you know about particles in solids, liquids, and gases to help you decide ([Knowledge](#), [Skills](#)).
5. Check your work with the answer key only after you finish.

Match the pairs

Column A		Column B
A. particle	_____	1. Mass per unit of volume
B. vibrate	_____	2. Particles in motion
C. solid	_____	3. Small unit of matter
D. density	_____	4. Firm matter with fixed shape
E. volume	_____	5. Order or placement of particles
F. compress	_____	6. To squeeze into a smaller space
G. arrange	_____	7. Space occupied by matter
H. movement	_____	8. Rapid movement in place

Answer key

- **A** matches **3** (particle: Small unit of matter)
- **B** matches **8** (vibrate: Rapid movement in place)
- **C** matches **4** (solid: Firm matter with fixed shape)
- **D** matches **1** (density: Mass per unit of volume)
- **E** matches **7** (volume: Space occupied by matter)
- **F** matches **6** (compress: To squeeze into a smaller space)
- **G** matches **5** (arrange: Order or placement of particles)
- **H** matches **2** (movement: Particles in motion)