

The Particle Model of Matter: Matching Game

Every solid, liquid, and gas is built from tiny particles that are always moving, and the way those particles are arranged explains properties like volume and density ([Guiding question](#), [Knowledge](#)). In this game you will match key words such as particle, vibrate, solid, and compress to their correct meanings, using ideas from the particle model of matter ([Outcome](#), [Understanding](#), [Understanding](#)). Words like density, volume, movement, and property come from the physical properties you have been measuring and comparing in class ([Knowledge](#), [Skills](#)).

How to play

1. Look at the word list and the list of meanings.
2. Match each word to the meaning that describes it best.
3. Write the matching letter or number in the space provided.
4. When you finish, check your answers using the answer key at the bottom of the page.
5. If you get stuck, think about what you know about solids, liquids, and gases and how their particles move ([Knowledge](#), [Knowledge](#)).

Match the pairs

Column A		Column B
A. particle	_____	1. Space occupied
B. vibrate	_____	2. Shake or move back and forth
C. solid	_____	3. Squeeze into smaller space
D. density	_____	4. A comparison of mass to volume
E. volume	_____	5. Fixed shape and volume; particles are packed closely and vibrate in place
F. compress	_____	6. Small unit of matter
G. movement	_____	7. Motion or change of place
H. property	_____	8. Quality or feature

Answer key

- **A** matches **6** (particle: Small unit of matter)
- **B** matches **2** (vibrate: Shake or move back and forth)
- **C** matches **5** (solid: Fixed shape and volume; particles are packed closely and vibrate in place)
- **D** matches **4** (density: A comparison of mass to volume)
- **E** matches **1** (volume: Space occupied)
- **F** matches **3** (compress: Squeeze into smaller space)
- **G** matches **7** (movement: Motion or change of place)
- **H** matches **8** (property: Quality or feature)