

The Particle Model of Matter: Matching Game

Every solid, liquid, and gas is made of tiny particles that are always moving ([PDF p.1](#), [Knowledge](#)). In this game you will match key words about the particle model, like particle, vibrate, and movement, with the ideas about density, volume, and attractive forces between particles ([Knowledge](#), [Understanding](#)). Understanding how particles arrange and move helps explain why a rock feels solid, why water pours, and why air can be squeezed into a smaller space ([Skills](#), [Skills](#)).

How to play

1. Look at the word list and the clue list in the table below.
2. Match each word to the clue that describes it best.
3. Write the matching letter next to each number, or draw a line connecting the pairs.
4. Work with a partner and check each other's thinking before you write your final answers.
5. When you finish, use the particle model to explain one match out loud to your partner. Can you use the word "arrangement" or "attractive" in your explanation?

Match the pairs

Column A		Column B
A. particle	_____	1. Pulling or drawing toward
B. vibrate	_____	2. To shake or move rapidly
C. density	_____	3. To press down and make smaller
D. volume	_____	4. How things are organized or positioned
E. compress	_____	5. How much space something occupies
F. arrangement	_____	6. The amount of matter in a given space
G. movement	_____	7. The action of changing location
H. attractive	_____	8. A small unit of matter

Answer key

- **A** matches **8** (particle: A small unit of matter)
- **B** matches **2** (vibrate: To shake or move rapidly)
- **C** matches **6** (density: The amount of matter in a given space)
- **D** matches **5** (volume: How much space something occupies)
- **E** matches **3** (compress: To press down and make smaller)
- **F** matches **4** (arrangement: How things are organized or positioned)
- **G** matches **7** (movement: The action of changing location)
- **H** matches **1** (attractive: Pulling or drawing toward)