

Hangman: The Particle Model of Matter

Everything around you—solids, liquids, and gases—is made of tiny particles. These particles are always moving. There are always spaces between them ([PDF p.1](#), [Knowledge](#)). In this game you will guess words about particles. You will think about how particles behave. You will think about how they pack together. You will learn about properties like state, mass, or volume ([Knowledge](#)). You will think about how particles vibrate, or shake, inside a solid. You will learn how particles in a liquid slide past each other ([Knowledge](#), [Knowledge](#)). Good luck guessing all three ideas.

How to play

1. Work with a partner or small group.
2. One player picks a word from the puzzle set and keeps the answer key hidden.
3. Other players take turns guessing one letter at a time.
4. Correct guesses fill in the matching blanks. Wrong guesses add one part to the hangman drawing.
5. A team wins the round if they complete the word before the drawing is finished, usually after six wrong guesses.
6. Use the clue under each puzzle if your group gets stuck. Try to connect the answer to what you know about the particle model of matter before you check the answer key.

Puzzles

Round 1 (8 letters)

P _ _ _ _ _ _ _ _

Clue: A characteristic of matter that can be measured or observed, like mass or volume ([Knowledge](#))

Wrong guesses: _ _ _ _ _ _ _ _

Round 2 (7 letters)

V _ _ _ _ _ _

Clue: To shake or move back and forth in place ([Knowledge](#))

Wrong guesses: _ _ _ _ _ _ _ _

Round 3 (6 letters)

L _ _ _ _ _

Clue: A state of matter where particles slide past each other and have spaces between them ([Knowledge](#))

Wrong guesses: _ _ _ _ _ _ _ _

Round 4 (11 letters)

A _ _ _ _ _ _ _ _ _ _ _

Clue: The way particles are organized or positioned in relation to each other ([Understanding](#))

Wrong guesses: _ _ _ _ _ _ _ _ _ _

Answer key

- Round 1: **PROPERTY**
- Round 2: **VIBRATE**
- Round 3: **LIQUID**
- Round 4: **ARRANGEMENT**

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