

The Particle Model of Matter: Hangman

All matter, from the ice in your water bottle to the air you breathe, is built from tiny particles too small to see ([PDF p.1](#)). Scientists use the particle model of matter to explain why a SOLID keeps its shape, why some materials COMPRESS when you squeeze them, and why every PARTICLE in matter is always moving, even if it just seems to VIBRATE in place ([Knowledge](#)). This game reviews the key words behind Grade 5's guiding question: how can states of matter and other physical properties be explained using the particle model of matter ([Guiding question](#))?

How to play

You will see a row of blank spaces for each hidden word. Each blank stands for one letter.

1. Guess one letter at a time.
2. If the letter is in the word, it gets filled into every spot where it appears.
3. If the letter is not in the word, you get one strike. Most players agree on 6 strikes before the word is revealed.
4. Use the clue beside each puzzle to help narrow down your guess.
5. Try to solve all 8 words with as few strikes as possible.

Work alone, with a partner, or as a class team. If you get stuck, think back to how particles behave in solids, liquids, and gases ([Understanding](#)).

Puzzles

Round 1 (5 letters)

S _ _ _ _

Clue: A state of matter where particles are close together and vibrate in place ([Knowledge](#))

Wrong guesses: _ _ _ _ _

Round 2 (8 letters)

C _ _ _ _ _ _ _

Clue: To squeeze something into a smaller space ([Knowledge](#))

Wrong guesses: _ _ _ _ _

Round 3 (8 letters)

P _ _ _ _ _ _ _

Clue: A tiny piece that makes up all matter ([Knowledge](#))

Wrong guesses: _ _ _ _ _

Round 4 (7 letters)

V _ _ _ _ _ _

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

Wrong guesses: _ _ _ _ _

Answer key

- Round 1: **SOLID**
- Round 2: **COMPRESS**
- Round 3: **PARTICLE**
- Round 4: **VIBRATE**