Science Fables

The Mystery of the Heavy Little Cube

Story Quiz

This quiz follows Zara and Eli as they learn about mass, volume, and density.

1. Why was the silver cube heavier than the wooden cube even though they were the same size?

A. The silver cube had more mass packed into the same volume
B. The wooden cube was hollow
C. The silver cube had a larger volume
D. The wooden cube contained more matter

2. What does volume measure?

A. How heavy an object feels
B. How much space an object takes up
C. How quickly an object moves
D. How much water an object contains

3. What does mass describe?

A. The amount of matter in an object
B. The shape of an object
C. The color of an object
D. The amount of space around an object

4. How is density calculated?

A. Density = volume ÷ mass
B. Density = mass × volume
C. Density = mass ÷ volume
D. Density = mass + volume

5. Why did the wooden block float while the rock sank?

A. The wooden block was colder than the rock
B. The wooden block was less dense than water, while the rock was denser
C. The rock had no volume
D. The water pushed only on the wooden block

Answer Key

1. A — The silver cube had more mass packed into the same volume

The silver cube was heavier because it had more mass packed into the same volume.

2. B — How much space an object takes up

Volume measures how much space an object takes up.

3. A — The amount of matter in an object

Mass describes the amount of matter in an object.

4. C — Density = mass ÷ volume

Density is calculated as mass divided by volume.

5. B — The wooden block was less dense than water, while the rock was denser

The wooden block floated because it was less dense than water, while the rock was denser.