

Curiosity: Did the Candle's Matter Disappear?

Curiosity Reading | CheAI Research Inc.

Packet ID: g09_u02_w08

Connection: environment and energy

Reading time: 4 minutes

A candle seems to lose matter as wax shrinks. But the wax is only part of the reacting system: oxygen enters from air, and products such as carbon dioxide and water vapor spread into surroundings. A balance under the candle alone cannot track all reactants and products. Conservation reasoning begins by naming a boundary and asking what crosses it.

Think like a chemist

1. What crosses the boundary around a burning candle?
2. Why does a lower wax mass not show that matter was destroyed?
3. Which data would make a mass claim more defensible?

Word	Student-friendly meaning	Packet
system	chosen part being studied	1–3, 8–10
boundary	edge separating system/surroundings	2, 9–10, 18
conservation	matter is accounted for	1, 7, 15