



Testing the burning rate of different candle wax types



QUESTION

Do different types of candle wax burn at different rates?



HYPOTHESIS

If the wax type is different, then the burning rate will be different because _____



MATERIALS

- 3 candles of different wax types (e.g., paraffin, soy, beeswax)
- 3 identical heat-safe candle holders
- Matches or lighter
- Ruler or measuring tape
- Timer or stopwatch
- Digital scale (grams)
- Notebook and pencil



SAFETY FIRST

- Always ask an adult for permission and help.
- Never leave candles unattended.
- Keep flammable items away from the experiment.
- Handle hot holders with care.
- Work in a well-ventilated area.



PROCEDURE

1. Label your candles A, B, and C. Record the wax type for each.
2. Measure each candle. Record the starting mass (in grams) in the data table.
3. Place each candle in an identical heat-safe holder on a level surface.
4. Light all three candles at the same time. Start the timer.
5. Allow the candles to burn for 30 minutes. Do not move the candles.
6. After 30 minutes, blow out all flames. Let the candles cool.
7. Measure each candle again. Record the ending mass (in grams).
8. Calculate the mass burned by subtracting ending mass from starting mass.
9. Calculate the burning rate (grams per minute) by dividing the mass burned by 30 minutes.

Keep it Fair!

- ✓ Use candles that are the same size and shape.
- ✓ Burn all candles for the same amount of time.
- ✓ Do not trim the wicks.



DATA TABLE

Wax Type (and Candle Label)	Starting Mass (g)	Ending Mass (g)	Mass Burned (g) (Starting – Ending)	Burning Rate (g/min) (Mass Burned ÷ 30)
Paraffin (A)				
Soy (B)				
Beeswax (C)				

Observations (what did you notice while the candles were burning?):

ANALYSIS

1. Which candle burned the fastest?

2. Which candle burned the slowest?

3. How much faster or slower did it burn?

4. What might explain the differences in burning rates?



CONCLUSION

Summarize your results in 1–2 sentences.