

Reaction Patterns: Competition Corner

Week 30 | Predict cautiously; separate shape from evidence

Competition Corner

Use IUPAC equation conventions cited in `sources.md`. All prompts use paper data cards; do not perform reactions. A pattern can suggest a model, but it does not replace evidence.

1. Pattern ambiguity. A card has the form $AB + C \rightarrow AC + B$. Give the pattern name, propose one plausible example, and list two pieces of evidence needed before treating your example as an actual reaction.

2. Competing explanations. A clear solution becomes cloudy after two solution cards are combined. Give two possible explanations that are consistent with the observation. What additional data would distinguish them?

3. Boundary versus pattern. A model cup loses 0.84 g after a card says “gas observed.” Explain why this supports neither a unique equation nor a violation of conservation. Design a safer data-only follow-up.