

Grades 11–12 Competition Synthesis

Unfamiliar Models and Bounded Reasoning

All cards are fictional paper models. No laboratory work, collection, device use, intervention, recommendation, or real-world decision is requested. Total points: 16.

Card A: 3.0 ± 0.2 units. **Card B:** lower final energy label plus high barrier. **Card C:** X and Y rise together in a narrow fictional boundary.

1. Write A's interval and state one limit of that interval. [3 pts]

2. Explain why B can be compatible with a slow modeled change. [3 pts]

3. Write one bounded claim and one excluded claim for C. [3 pts]

4. Design a text-accessible table/graph audit for the three cards. Include units, boundary, and a non-color-only feature. [3 pts]

5. Write a claim-evidence-reasoning synthesis connecting all three cards without asserting cause, mechanism, or a real-world action. [4 pts]
