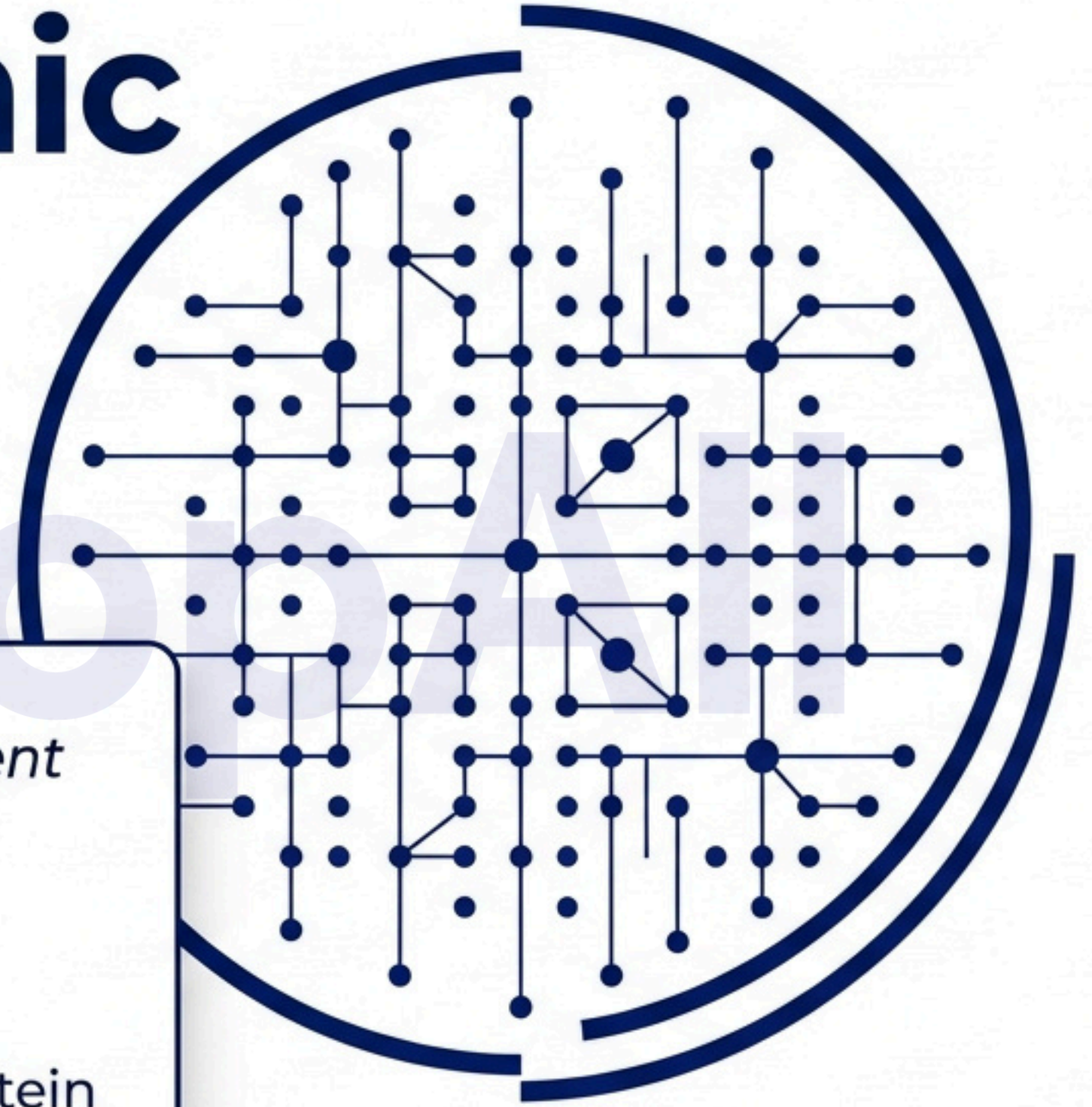


Thermodynamic Terms

It is the only physical theory of universal content concerning which I am convinced that, within the framework of the applicability of its basic concepts, it will never be overthrown.

— Albert Einstein



Energy transformation in macroscopic systems



THE SUBJECT

The study of interrelated forms of energy and how they transform from one to another under certain conditions.

THE SCOPE

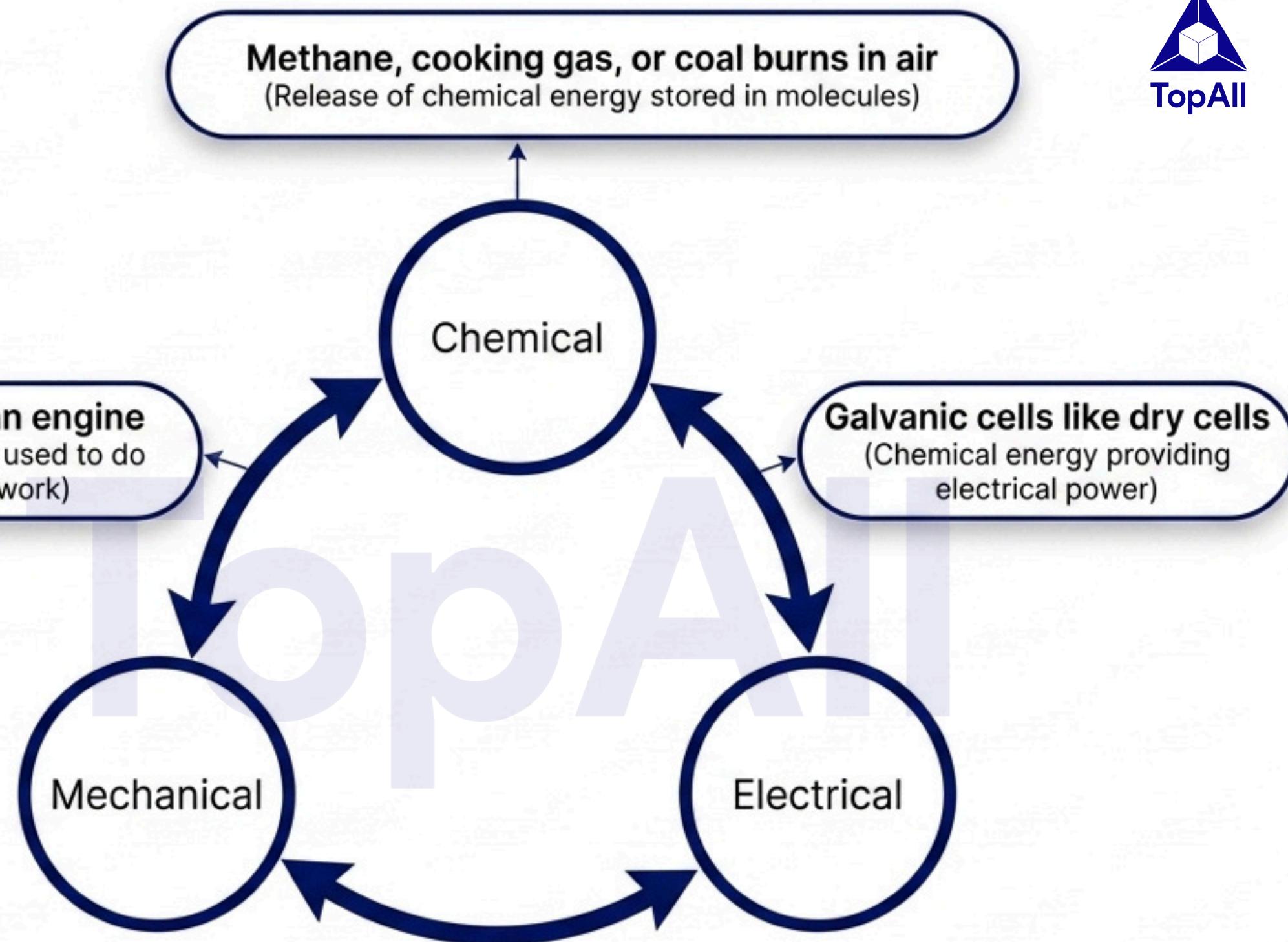
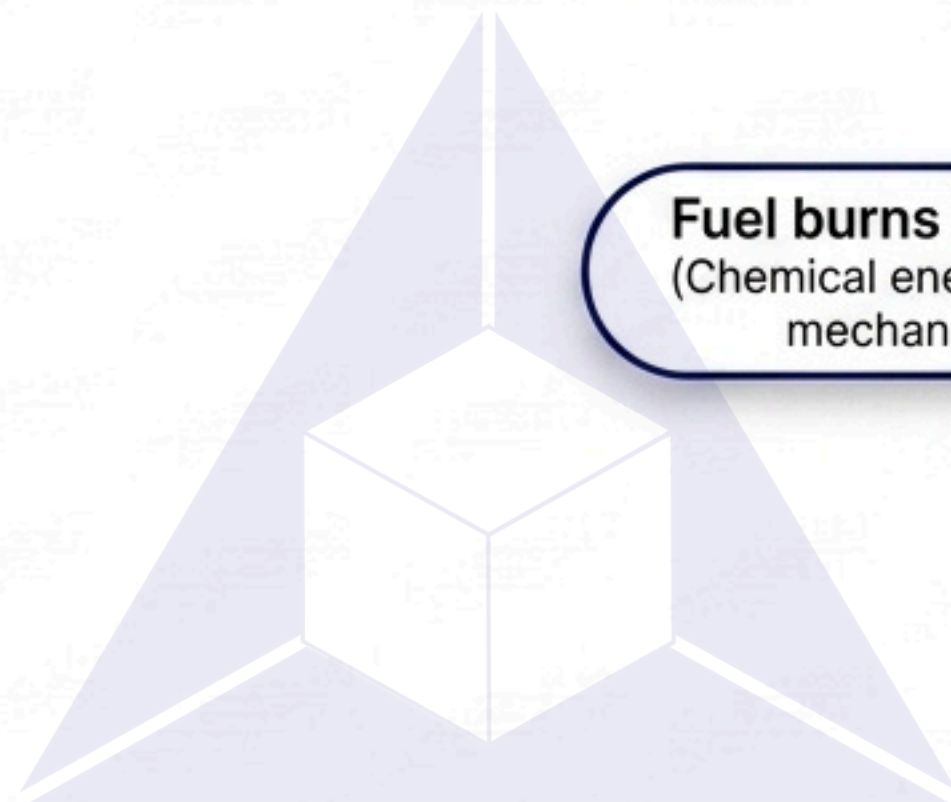
Deals exclusively with macroscopic systems (involving a large number of molecules) rather than microscopic systems (few molecules).

THE CONSTANTS

Applies only when a system is in an equilibrium state—where macroscopic bulk properties like p and T do not change with time.

THE RELEVANCE

Why thermodynamics matters in chemistry



Key-Takeaway Panel

Chemistry is not just about making new substances; it is about harnessing the energy changes that accompany those reactions.



You've Learned the Theory. Let's Test Them Now.

$$E=mc^2$$



Turn theory into marks with **unlimited MCQs, smart analysis, and focused revision.**

Practice Now



At prep.topall.app

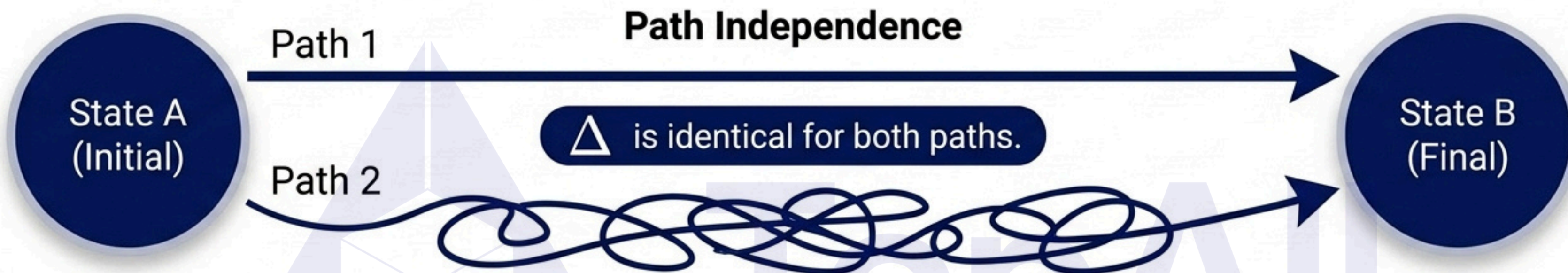
Key Highlights

- » Free Study Material, Videos & Infographics
- » Push Your Limits with Level-Based Challenges
- » Climb the Leaderboard Among Fellow Aspirants
- » Practice Unlimited MCQs for NEET & JEE
- » Get Clear Explanations, Not Just Marks
- » Track Your Performance Smarter



THE RULES OF THE GAME

The equilibrium-state view ignores the journey



Thermodynamics (Our Focus)

- Variables: Initial State to Final State
- Condition: Equilibrium
- Core Question: Will it happen?

Kinetics (What we ignore here)

- Variables: Reaction Path & Mechanism
- Condition: Time-dependent rate
- Core Question: How fast will it get there?

Thermodynamics is not concerned about how and at what rate transformations are carried out.

The Big 3 Unit Questions

1

How do we determine the energy changes involved in a chemical reaction or process?

Heat, Work, Total Energy

2

Will the reaction occur or not? What actually drives a chemical process?

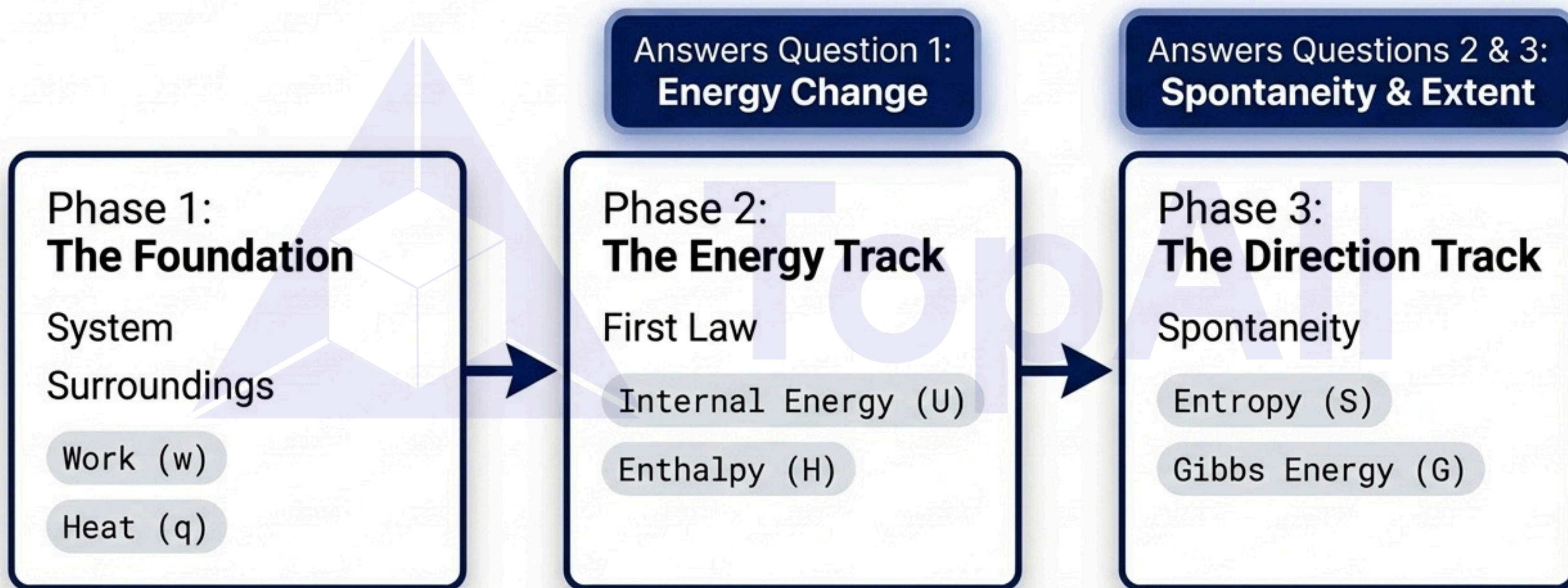
Natural direction, driving forces

3

To what extent do these chemical reactions proceed before stopping?

Reaching equilibrium

Mapping the syllabus to the answers



Everything you are about to learn is just a tool to answer these core questions.



You've Learned the Theory.

Now Let's Test It.

Reading notes gets you knowledge.

Practicing MCQs gets you marks.

That's exactly what TopAll Pro is built for.

Try TopAll Pro Now

What TopAll Pro Does Differently

-  **Stuck? Snap it. Solve it. — Doubts AI**
Photo → step-by-step solution in seconds, 24/7
-  **Your AI Coach finds your blind spots**
Concept-level weakness detection — not just chapter-level
-  **4.5 Lakh+ questions. Never run out.**
13× more content than any other prep app in India
-  **Build your own test in 60 seconds**
Pick a chapter, set difficulty — AI does the rest instantly.
-  **AI Recommendation that helps you improve**
AI Recommendation Analysis your Tests and tell you where you need to improve.



Practice the moment you finish studying
Jump in while the concept is still fresh in your head

4.5L+
MCQs

1.5L+
Students

AI Powered
In-Depth Analysis