Integrating Core Literacy and Language Carriers: A Comparative Study of Biology Assessments in Chinese Gaokao and OxfordAQA A-Level

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GAOKAO BIOLOGY	OXFORD AQA A-LEVEL	TEACHING IMPLICATION
Dense first-language contexts reward precise conceptual discrimination.	**Command words make causal and evaluative reasoning visible in English.**	**Teach scientific meaning, academic language, and evidence together.**

FOCUS

How do Gaokao and OxfordAQA A-Level Biology distribute conceptual, linguistic, and reasoning demands, and how can instruction connect their strengths?

METHOD

Comparative documentary analysis of 2023-2025 public Gaokao and OxfordAQA materials: papers, curriculum and specifications, mark schemes, and examiner reports.

GAOKAO BIOLOGY

- High-density contexts and implicit conditions.
- Precise terminology and semantic control.
- Deep conceptual integration under strict scoring.

OXFORDAQA A-LEVEL

- Command words define the cognitive operation.
- Scaffolds and mark schemes make logic visible.
- Extended English requires causal evaluation.

TEACHING IMPLICATIONS

- Connect concept maps with sentence frames.
- Teach command words as reasoning operations.
- Use cross-system tasks to diagnose causal links.

CONCLUSION

Integrate scientific meaning, academic language, and evidence-based judgement across assessment traditions.

VISUAL EVIDENCE

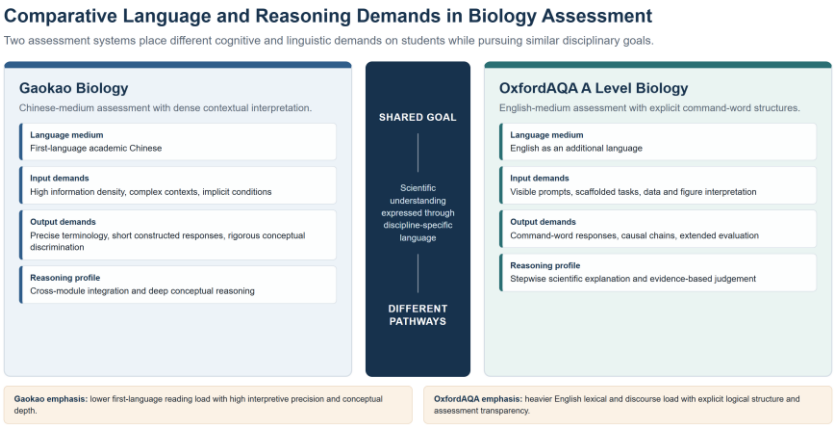


Figure 1. Comparative language and reasoning demands in Biology assessment.

TABLE. CROSS-SYSTEM COMPARISON

Dimension	Gaokao Biology	OxfordAQA A-Level Biology
Language	Academic Chinese as L1	Academic English as an additional language
Input	Dense contexts and implicit conditions	Explicit prompts and scaffolded data
Output	Precise short answers and controlled terms	Extended causal and evaluative responses
Reasoning	Deep conceptual integration	Stepwise evaluation and evidence-based judgement

The main difference is not what counts as Biology, but how each system makes scientific reasoning visible.

INTEGRATED MODEL

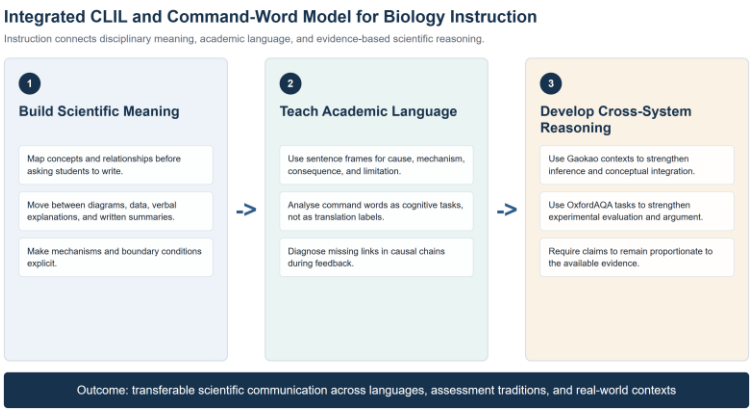


Figure 2. Integrated CLIL and command-word model for Biology instruction.

Selected sources: [1] Ministry of Education, China (2020); [2] OxfordAQA (2023-2025); [5] Coyle (2018); [6] Paran (2013).