STAFF ROOM POSTER

The Four Levels of Depth of Knowledge

DOK describes the complexity of thinking a task demands, not its difficulty. A hard recall question is still Level 1.

DOK 1

Level 1: Recall and reproduce

Facts, definitions, routine procedures. One right answer, one step to it.

In class: What is the boiling point of water? Label the parts of the cell.

DOK 2

Level 2: Skills and concepts

Apply, classify, compare, summarise. Decide which knowledge to use and use it.

In class: Sort these materials by conductivity and explain your groupings.

DOK 3

Level 3: Strategic thinking

Reason with evidence, justify, critique. More than one defensible answer; the argument is the work.

In class: Which settlement site is best? Defend your choice against the alternatives.

DOK 4

Level 4: Extended thinking

Investigate over time, synthesise across sources, transfer to a new domain.

In class: Design and run a fair test across two weeks; report what would change with more time.

QUESTION STEM CARDS: CUT AND KEEP

Question Stems by Level

Keep by the desk while questioning. Aim to follow one Level 1 question with a Level 2 or 3 follow-up.

DOK 1 starters

Establish the facts quickly, then move on. These check memory, not understanding.

Say: "What is...? When did...? List the steps for..."

DOK 2 follow-ups

Make learners organise and apply what they recalled.

Say: "How is X different from Y? Sort these... What happens if...?"

DOK 3 pressers

Demand evidence and judgement. Wait time matters more here.

Say: "What is your evidence? How would you convince someone who disagrees?"

DOK 4 extensions

For projects and extended tasks, not single questions in a lesson.

Say: "Synthesise what we learned across both units to propose..."

QUICK REFERENCE POSTER

Lift a Task One Level

Same topic, deeper demand. Three reliable moves for raising cognitive demand without changing your content.

From recall to comparison

Take any list-the-facts task and ask learners to organise the facts against a second case.

In class: Instead of describe the Roman army, try: what made the Roman army harder to beat than the Celtic one?

From answer to argument

Keep the question; demand justification against a named alternative.

In class: Instead of which material is best, try: defend your material against the strongest rival.

From task to transfer

Ask learners to apply the idea somewhere it has not been taught.

In class: We used ratios in recipes. Where would ratios matter in planning the school fair?

TEACHER CHECKLIST

Auditing a Unit's Cognitive Demand

Run on a unit's tasks and assessments once a term. The evidence says self-written items drift low without an audit.

Map what you have

- [ ] Label each task and assessment item DOK 1-4, quickly and honestly.
- [ ] Count the mix. Note whether your own items sit lower than sourced ones.
- [ ] Check the final assessment format: multiple choice caps most items at DOK 1-2.

Rebalance deliberately

- [ ] Every lesson keeps some DOK 1: fluency matters and underpins depth.
- [ ] At least one DOK 3 task with evidence-based justification appears each week.
- [ ] One constructed-response item replaces one multiple-choice item in the next assessment.

Keep it honest

- [ ] Difficulty is not depth: a brutal recall quiz is still DOK 1.
- [ ] Depth is not worksheets with the word evaluate: check what thinking the task forces.
- [ ] Learners get taught the difference, so they recognise what kind of thinking is being asked.

CPD BRIEFING: STAFF ROOM COPY

Depth of Knowledge: A 5-Minute Evidence Briefing

What the research around cognitive demand says, including the corrections to popular claims.

Self-written tasks drift shallow

When teachers write or source their own items, the mix skews to procedures and recall, and explanation-of-thinking items thin out. Auditing the mix is the fix, and it is quick.

Format caps demand

Multiple-choice papers mostly live at DOK 1-2; reaching strategic thinking generally requires constructed responses. Choose the format after choosing the demand.

Higher-order questioning helps, modestly

The classic quantitative syntheses found small positive effects of higher cognitive questioning, not the transformative effects sometimes claimed. Pair deeper questions with wait time and follow-ups.

The honest caveat

DOK is a planning lens, not a validated intervention: the framework itself has little outcome research. Its value is in making demand visible so you can balance it deliberately.

Evidence base

Schmidt, M. (2022). Cognitive demand of teacher-created mathematics assessments. Middle school assessment study, Northwestern United States.
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