

SELF-ASSESSMENT FRAMEWORK

The 47-Point Science Curriculum Audit Checklist

A structured self-assessment used to identify where your written curriculum, classroom teaching, and assessment system have drifted apart — before exam results reveal it for you.

47

CHECKPOINTS

4

DIAGNOSTIC AREAS

20

MINUTES

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Before You Start

Most schools discover curriculum gaps only when exam results fall. This checklist is designed to surface those gaps earlier — while there is still time to act.

What this checklist does: It walks you through 47 specific checkpoints across four areas that determine whether a science programme performs — curriculum alignment, assessment design, teacher development, and environmental science integration. Each checkpoint is something you can verify directly: a document, a practice, a pattern in your school right now.

What this checklist does not do: It will not tell you *why* a gap exists, what is causing it, or which fix matters most for your specific context. That interpretation is where expert judgement — not a checklist — does the work. A scoring guide at the end will show you what your results likely mean and where to go next.

Who this is for: Heads of Science, Principals, Academic Directors, and Curriculum Leads at national and international schools, education NGOs, and organisations building or reviewing a science programme — regardless of curriculum board.

1

Work through each section honestly — tick only what is genuinely true today

2

Count your ticks in each section separately

3

Use the scoring guide on the final pages to interpret your results

Section A — Curriculum Alignment

Where your written curriculum, your classroom teaching, and your assessed content agree — and where they quietly diverge.

A Curriculum Alignment

12 checkpoints

- ☐ Every science subject has a written scheme of work or curriculum map that is current — not more than 12 months old.
- ☐ The written curriculum specifies learning objectives, not just topics or textbook chapter titles.
- ☐ All science teachers are working from the same version of the curriculum document.
- ☐ The curriculum has been formally mapped against your national or international curriculum specification — topic by topic.
- ☐ Someone has compared actual lesson plans against the written curriculum in the last 12 months.
- ☐ Pacing guides exist and are realistic against the actual number of teaching weeks available.
- ☐ Cross-year progression is documented — what Year 9 depends on from Year 8 is explicit, not assumed.
- ☐ New teachers receive a structured induction to the curriculum, not just access to a shared folder.
- ☐ Practical/lab work is mapped to specification requirements, not left to individual teacher discretion.
- ☐ There is a named person accountable for curriculum coherence across the science department.
- ☐ Curriculum review happens on a scheduled cycle, not only in reaction to poor results.
- ☐ You could produce your curriculum gap analysis for external review (inspection, audit, board) within one week if asked.

Section B — Assessment Design & Standardisation

Whether your assessments measure understanding — or just reward memory the night before an exam.

B Assessment Design & Standardisation

12 checkpoints

- ☐ Internal assessment questions are tagged by cognitive demand level (recall, application, analysis, evaluation) — not written from habit.
- ☐ A shared question bank exists for at least one science subject, tagged by topic and objective.
- ☐ Marking schemes are detailed enough that two different teachers would give the same student the same mark.
- ☐ Moderation or standardisation sessions run before major internal exams — not only after results come in.
- ☐ Internal exam results have been formally compared against external national or international examination results in the last 2 years.
- ☐ When internal and external results diverge, someone investigates why — rather than treating it as expected.
- ☐ Assessment data is broken down by learning objective, not just by total score.
- ☐ Assessment data actively changes what is taught next — not just what grade is recorded.
- ☐ Past paper analysis is used systematically to identify recurring student weaknesses.
- ☐ A new or substitute teacher could use your rubrics correctly without additional interpretation.
- ☐ Command word usage (describe, explain, evaluate, etc.) is taught explicitly, not assumed to be understood.
- ☐ Your internal assessment calendar is planned a full term ahead, not built exam-by-exam.

Section C — Teacher Professional Development

Whether professional development is changing what happens in the classroom — or just filling a training calendar.

C Teacher Professional Development

12 checkpoints

- ☐ Science teachers have received external (non-internal) professional development within the last 2 years.
- ☐ At least one science teacher holds a recognised external teacher training certification or equivalent formal accreditation.
- ☐ You could describe, with specifics, what changed in classroom practice after your last CPD session.
- ☐ Inquiry-based teaching (students discovering, not just receiving information) happens in a majority of science lessons.
- ☐ Differentiation strategies for SEND, EAL, and high-ability students exist beyond "make the worksheet easier."
- ☐ Teachers have a clear framework for integrating AI and EdTech tools into science teaching — not ad hoc experimentation.
- ☐ Lesson observations happen regularly and produce specific, actionable feedback — not just a compliance checkbox.
- ☐ There is a visible gap between your strongest and weakest science teachers, and a plan exists to close it.
- ☐ New teachers are mentored specifically on your curriculum and assessment approach, not generic onboarding.
- ☐ Teachers can articulate what external examiners are specifically looking for in student answers.
- ☐ Professional development is tied to a documented plan, not selected reactively when a gap becomes visible.
- ☐ Teacher turnover has not disrupted curriculum delivery in the last 12 months, or a plan exists to prevent it doing so.

Section D — Environmental Science Integration

Whether environmental and sustainability education is a coherent programme — or a handful of topics bolted onto existing lessons.

D Environmental Science Integration

6 checkpoints

- ☐ Environmental science has a defined place in your curriculum — as a standalone subject or a mapped integrated strand — not an informal add-on.
- ☐ If your school has a sustainability or ESG mandate, there is a documented curriculum response to it.
- ☐ Teachers delivering environmental content have received specific training in it, beyond general science background.
- ☐ If offering or planning a formal environmental science qualification, your curriculum and staffing are mapped to its specific requirements.
- ☐ Environmental science assessment is held to the same rigour as core science subjects — not treated as lower-stakes.
- ☐ NGO or donor-funded environmental programmes (if applicable) have documentation meeting funder curriculum standards.

You've completed all 47 checkpoints.

Turn the page to score your results and see exactly what they typically indicate.

Score Your Results

Count your ticks in each section separately. Your score in each area points to a specific, common pattern.

Section A — Curriculum Alignment (out of 12)

Score	What it typically means
10–12	Curriculum alignment is a genuine strength. Focus your attention on the other sections.
6–9	Partial alignment. Some subjects or year groups are solid; others are drifting unnoticed.
0–5	Significant drift between written, taught, and assessed curriculum. This is usually the highest-leverage place to start.

Section B — Assessment Design (out of 12)

Score	What it typically means
10–12	Assessment practice is standardised and evidence-based. Strong foundation.
6–9	Assessments exist but lack consistency across teachers — results may be misleading you.
0–5	Internal results are unlikely to reliably predict external exam performance. High priority.

Section C — Teacher Professional Development (out of 12)

Score	What it typically means
10–12	Your teacher development pipeline is active and externally informed.
6–9	CPD is happening but may be reinforcing existing habits rather than shifting practice.
0–5	Classroom practice is likely inconsistent across your department. This usually compounds the gaps found in A and B.

Section D — Environmental Science (out of 6)

Score	What it typically means
5–6	Environmental science is a coherent, well-integrated programme.
2–4	Environmental content exists but is not yet a structured programme.
0–1	Environmental education is informal. A gap if your school carries any ESG or accreditation mandate.

CHALKPLAN

Science Education That Performs

What This Checklist Can't Tell You

A checklist can show you *where* to look. It can't tell you *why* a gap exists, how urgent it is relative to your other priorities, or what the fastest credible path to fixing it looks like for your specific school. That takes an expert diagnostic conversation — not a self-assessment.

Science Curriculum Health Check — \$497

- 90-minute structured diagnostic (Zoom or Google Meet — your choice) with Hiba Zeeshan, Cambridge Master Trainer
- A written report within 5 business days — your 3 to 5 highest-priority gaps, root causes, and specific recommendations
- Not a sales call. You receive a complete written diagnosis whether or not you go further
- The full \$497 is credited against any ChalkPlan project booked within 90 days

Book Your Health Check → chalkplan.com/health-check

Or email hello@chalkplan.com with your preferred dates. Response within 48 hours.

Hiba Zeeshan · Cambridge Master Trainer · Government STEAM Lead, Sindh (2,500+ schools, 100,000+ students) · 17+ years science education