



Sec 1 Math Foundations Checklist

A clean 2-page guide to start Secondary 1 strong (G1-G3) - and build the runway for E-Math and future A-Math.

Why have Sec 1 Math tuition with us?

Our goal: build a calm, confident foundation early - before gaps snowball.

- 3-pax small groups: faster feedback, fewer hidden gaps, and more confidence to ask questions.
- MOE-aligned pacing for G1/G2/G3 so your child learns at the right challenge level under Full SBB.
- First-principles teaching: we focus on the 'why' so students can solve unfamiliar questions, not just repeat steps.
- Exam-smart habits from Day 1: accuracy routines, working presentation, and time awareness.

What is the Sec 1 Math syllabus?

In Singapore, Sec 1 Mathematics is the bridge from PSLE arithmetic to secondary reasoning. The big shift is not 'harder sums' - it is algebraic thinking, geometry logic, and data sense. The official O-Level Mathematics syllabus (4052) organises content into three strands: Number & Algebra, Geometry & Measurement, and Statistics & Probability.

Sec 1 topics at a glance (most schools cover these across Terms 1-4):

- Number & Algebra: integers, indices/laws of indices, ratio & percentage, algebraic expressions, simple equations, linear functions.
- Geometry & Measurement: angles, triangles & polygons, perimeter/area/volume, basic constructions and measurement accuracy.
- Statistics & Probability: data representation, mean/median/mode, and simple probability.

How to access the official MOE/SEAB documents

- MOE (Lower Secondary / Full SBB): download the Mathematics syllabuses (G1, and G2/G3) from the MOE syllabus page: moe.gov.sg/secondary/schools-offering-full-sbb/syllabus
- SEAB (Exam framework): open SEAB's 2026 O-Level syllabuses list, then download: Mathematics 4052 and Additional Mathematics 4049 PDFs: seab.gov.sg/gce-o-level/o-level-syllabuses-examined-for-private-candidates-2026
- Keep the PDFs in a 'Math Syllabus' folder on your phone so you can check topics before every school test.

Priority checklist (what to master first)

- Week 1-2: Set up an Error Log (careless, concept, method). Fix 3 errors daily with a parent/tutor check.
- Week 3-4: Algebra basics: simplify, substitute, solve linear equations; write every step (no mental jumps).
- Term 1 tests: Master fractions/ratio/percentage conversions + integer/indices rules (these feed everything later).
- Term 2: Graphs and linear functions - learn 'tables → points → straight line' and interpret slope as rate.



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Continue: Priority checklist (Terms 2-4)

- Term 3: Geometry accuracy - angle facts, clear diagrams, correct units, and neat construction habits.
- Term 4: Consolidate with mixed-topic sets (because real exams blend strands). Aim: 80% accuracy before speed.

The Alpha: 7 habits that move grades fast

- One-page formula & rules sheet: build it yourself (indices, fraction rules, angle facts). Update weekly.
- Two-pass checking: (1) Re-read the question; (2) Check units, signs, and reasonableness (estimate).
- Work like an examiner: show essential working; label diagrams; circle final answers with units.
- Spaced practice: 15-20 minutes daily beats one 2-hour weekend session.
- Mix, don't block: after learning a topic, do 2-3 questions from older topics to keep them alive.
- Calculator discipline: know when to use it; keep 3 s.f. / 1 d.p. rules consistent.
- Teach-back test: explain a solution out loud in 60 seconds. If you can't explain it, you don't own it.

Common Sec 1 traps (fix these early)

- Treating algebra like arithmetic: forgetting to 'do the same to both sides' in equations.
- Careless sign errors (especially with negatives) and weak bracket handling.
- Drawing messy geometry diagrams - then misreading your own figure.
- Rushing without estimation: answers that are obviously too big/small go unchecked.
- Not writing units or using wrong rounding (significant figures / decimal places).

Parent support checklist (simple, high impact)

- Ask weekly: 'Show me your Error Log and the 3 fixes you did.'
- Keep a 10-question 'baseline set' and re-test it every 2 weeks to measure improvement.
- Protect confidence: praise effort + process; correct mistakes calmly and specifically.
- Before tests, help your child pack instruments: ruler, protractor, compass, eraser, approved calculator.

Ready for a stronger Term 1?

Need a clean plan, correct pacing (G1/G2/G3), and fast gap-fixing? WhatsApp [BukitTimahTutor.com](https://bukittimahtutor.com) at +65 8823 1234 (scan the QR above) for a 3-pax Sec 1 Math consultation.