GROW EMPOWER

GRADES 8–9 · FULL YEAR

My Maths Diary

Ready for Grade 10

Build the base. Fix every mistake.



NAME _____

GRADE _____

SCHOOL _____

YEAR _____

START HERE

How this diary works

1. **Start with the Grade 10 checklist.**
   Grades 8 and 9 build the base for everything after. Tick each skill when you can do it on your own.

2. **Fill in your weekly page every Sunday.**
   Study time, what you learned, what is coming up, and what you are still stuck on.

3. **Write a one-page summary of the week.**
   The rule, a worked example, and one mistake you made and fixed.

4. **Copy every mistake into your mistake bank.**
   Sorted by topic. Read it before every test.

5. **After every test, fill in the marks tracker.**
   Your weakest topic shows up straight away. That is your next focus.

6. **Four weeks before an exam, start the exam countdown.**
   In Grade 9, use the "Maths or Maths Literacy?" page before you choose your subjects.

For parents

You don't need to be good at maths to help. Once a week, ask "What did you learn, and what mistake did you fix?" Then sign the summary page if you like. Your interest matters more than extra work.

Not sure where your gaps are?
Take the free maths check (Grades 4–12). It shows which topics are secure and which need work.
www.knowledgeempowers.online/baseline-assessment

TERM 1 · WEEK 1

This week in maths

____ / ____ to ____ / ____

STUDY TIME

MON	TUE	WED	THU	FRI	SAT	SUN
minutes	minutes	minutes	minutes	minutes	minutes	minutes

Total this week: _____ minutes

WHAT I LEARNED THIS WEEK

COMING UP: TESTS AND ASSIGNMENTS

A QUESTION I'M STILL STUCK ON

NEXT WEEK I WILL

TERM 1 · WEEK 1

My summary of this week

TOPIC

THE RULE
Write the rule or formula first, the general way.

EXAMPLE, STEP BY STEP
Substitute real numbers. Show every step.

A MISTAKE I MADE THIS WEEK

☐ Copied to my mistake bank

WHAT I WROTE	WHY IT WAS WRONG	THE RIGHT WAY

SELF-CHECK Can I do this without my notes? ☐ Not yet ☐ Almost ☐ Yes

Parent or tutor (optional)

Algebra

EXPANDING

One bracket	$a(b + c) = ab + ac$ multiply every term inside: $2(x + 3) = 2x + 6$
Two brackets	$(a + b)(c + d) = ac + ad + bc + bd$ each term in the first bracket × each term in the second: four products
Square of a sum	$(a + b)^2 = a^2 + 2ab + b^2$ $(a + b)^2 = (a + b)(a + b) = a^2 + ab + ab + b^2 = a^2 + 2ab + b^2$
Sum × difference	$(a + b)(a - b) = a^2 - b^2$ $(a + b)(a - b) = a^2 - ab + ab - b^2 = a^2 - b^2$

FACTORISING (ALWAYS LOOK FOR A COMMON FACTOR FIRST)

Common factor	$6x^2 + 9x = 3x(2x + 3)$ check by expanding: $3x(2x + 3) = 6x^2 + 9x$ ✓
Difference of squares	$x^2 - 16 = (x + 4)(x - 4)$ check: $(x + 4)(x - 4) = x^2 - 4x + 4x - 16 = x^2 - 16$ ✓
Trinomial	$x^2 + 5x + 6 = (x + 2)(x + 3)$ check: $(x + 2)(x + 3) = x^2 + 3x + 2x + 6 = x^2 + 5x + 6$ ✓
	find two numbers that multiply to 6 and add to 5

Like terms have the same variables with the same exponents: $3x^2 + 5x^2 = 8x^2$, but $3x^2 + 5x$ can't be added.