MATHPERT EDUCATION
Understand First. Score Next.

MathPert IGCSE Maths Revision Map

A printable worksheet for sorting topics, naming weak steps, repairing repeated mistakes, and retesting before another full paper.

A past paper tells you what went wrong.	A revision map tells you what to fix first.

Many students revise by opening a past paper, getting stuck, checking the answer, and moving on. That can feel productive, but it often leaves the same weak step untouched.

The aim is not to revise everything equally. The aim is to fix the weakest repeated step before doing more papers.

MathPert Revision Rule
Do not revise everything equally. Fix the repeated weak step first. Then practise changed questions. Then test the method under exam pressure.
Understanding first. Score next.

STEP 1

Sort each topic honestly

For each topic, choose the status that best describes the student's current ability. This is not a confidence exercise. It is a repair plan.

Secure	I can usually solve this topic without looking at notes.
Shaky	I understand part of it, but I still make mistakes when the question changes.
Unknown	I do not know how to start, or I only recognise the topic after seeing the answer.
Repeated mistake	I keep losing marks in the same type of step, even after revising it.

STEP 2

IGCSE Maths topic map

Mark one status per topic. Use the notes column to write the exact weak step, not a vague label.

Number and proportion

Number and proportion	Secure	Shaky	Unknown	Repeated	Notes / weak step
Number operations	[ ]	[ ]	[ ]	[ ]	
Fractions, decimals, percentages	[ ]	[ ]	[ ]	[ ]	
Ratio and proportion	[ ]	[ ]	[ ]	[ ]	
Standard form	[ ]	[ ]	[ ]	[ ]	
Bounds and approximation	[ ]	[ ]	[ ]	[ ]	

Algebra and functions

Algebra and functions	Secure	Shaky	Unknown	Repeated	Notes / weak step
Algebra simplification	[ ]	[ ]	[ ]	[ ]	
Expanding and factorising	[ ]	[ ]	[ ]	[ ]	
Solving linear equations	[ ]	[ ]	[ ]	[ ]	
Simultaneous equations	[ ]	[ ]	[ ]	[ ]	
Quadratic equations	[ ]	[ ]	[ ]	[ ]	
Inequalities	[ ]	[ ]	[ ]	[ ]	
Sequences	[ ]	[ ]	[ ]	[ ]	
Functions	[ ]	[ ]	[ ]	[ ]	
Indices and surds	[ ]	[ ]	[ ]	[ ]	

Graphs and coordinate geometry

Graphs and coordinate geometry	Secure	Shaky	Unknown	Repeated	Notes / weak step
Graphs of straight lines	[ ]	[ ]	[ ]	[ ]	
Curved graphs	[ ]	[ ]	[ ]	[ ]	
Coordinate geometry	[ ]	[ ]	[ ]	[ ]	

Geometry and measurement

Geometry and measurement	Secure	Shaky	Unknown	Repeated	Notes / weak step
Angle properties	[ ]	[ ]	[ ]	[ ]	
Bearings	[ ]	[ ]	[ ]	[ ]	
Similarity and congruence	[ ]	[ ]	[ ]	[ ]	
Pythagoras' theorem	[ ]	[ ]	[ ]	[ ]	
Trigonometry	[ ]	[ ]	[ ]	[ ]	
Mensuration	[ ]	[ ]	[ ]	[ ]	
Vectors	[ ]	[ ]	[ ]	[ ]	
Transformations	[ ]	[ ]	[ ]	[ ]	

Probability and statistics

Probability and statistics	Secure	Shaky	Unknown	Repeated	Notes / weak step
Probability	[ ]	[ ]	[ ]	[ ]	
Statistics	[ ]	[ ]	[ ]	[ ]	
Cumulative frequency / box plots	[ ]	[ ]	[ ]	[ ]	

STEP 3

Find the real problem

Do not stop at broad labels such as "weak in algebra". A useful revision map names the exact step that is leaking marks.

Weak topic	Too general	Better diagnosis
Algebra	I am bad at algebra	I make sign errors when moving terms across the equals sign
Trigonometry	I do not understand trigonometry	I cannot decide whether to use sin, cos, or tan
Graphs	I cannot do graphs	I lose marks when finding gradient from two points
Bounds	Bounds are confusing	I do not know when to use upper bound or lower bound
Probability	Probability is hard	I mix up "and" and "or" probability questions

STEP 4

Choose what to fix first

Priority	What to fix	Why it comes here
1	Repeated mistakes	Fix these first because they are already costing marks.
2	Shaky foundation topics	These topics affect harder chapters later.
3	Unknown topics	These need proper teaching, not just more practice.
4	Secure topics	Do light maintenance only. Do not spend too much time here.

STEP 5

One-week repair cycle

This plan moves from diagnosis, to repair, to changed questions, to exam-style testing.

Day	Focus	Action
Day 1	**Diagnose**	Choose 2 to 3 weak topics. Do a few questions without notes. Mark where the first mistake happens.
Day 2	**Repair**	Review the method. Rewrite the correct steps clearly. Do not rush to full past-paper questions yet.
Day 3	**Changed questions**	Try questions that look slightly different from the examples. Test understanding, not memory.
Day 4	**Mixed practice**	Mix the weak topic with other topics. Check whether the method still works when the topic is not obvious.
Day 5	**Exam-style**	Attempt exam questions under time pressure. Mark working steps, not only final answers.
Day 6	**Error review**	Record repeated mistakes. Write the correct method beside each mistake.
Day 7	**Retest**	Redo similar questions without notes. If the same mistake appears again, the topic is not secure yet.

STEP 6

Mistake log

Do not only write "careless mistake". Most careless mistakes have a pattern.

Date	Topic	Question type	Mistake made	Correct method	Retest date

Common patterns: skipped one algebra step; copied the number wrongly; used the wrong formula; rounded too early; did not check units; did not answer the exact question asked.

STEP 7

Before doing another past paper, ask this

1	Which topic caused the most lost marks last time?
2	Was the mistake due to concept, method, speed, or careless working?
3	Did I fix the weak step, or did I only read the solution?
4	Can I solve a changed version of the question?
5	If the same topic appears tomorrow, will I know what to do?

If the answer is unclear, do not rush into another paper. Repair first. Then test again.