

11+ Maths in Your Kitchen

Five things to do with your child in the school holidays. **No worksheets required.**

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Why this works

The 11+ tests your child may sit, whether the Kent Test or the new Bexley Selection Test, lean heavily on applied maths. Very few questions are bare sums. Almost all of them are dressed up as real problems: money, measures, recipes, timetables, scales and scores. The exam is testing whether your child can take the maths they know and use it on something real.

And here is what we see year after year in our groups: children who have handled these things in real life answer applied questions faster and with far more confidence than children who have only met them on paper. A child who has halved a recipe understands ratio in a way a worksheet cannot teach. A child who has planned a train journey does not freeze at a timetable question.

That is the whole idea behind this guide. You are not adding to your child's workload over the holidays. You are converting things your family already does, baking, shopping, days out, into quiet preparation. No timers, no battles, no worksheets at the kitchen table.

How to use it: pick one activity a week. Let your child do the thinking, even when it is slow. Resist the urge to correct too quickly; the working out is where the learning happens. Each activity ends with a "try this" question written in the style the exam uses, so you can see exactly what skill you have just built.

A note on getting it wrong: *mistakes made while measuring flour or counting change are cheap, friendly mistakes. They are exactly the kind a child should be making now, in July, rather than in an exam hall. Praise the attempt, then ask "how could we check that?"*

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The Recipe Half & Double

Choose a simple recipe together, flapjacks and pancakes work beautifully, and announce a problem: the recipe serves eight, but there are four of you. Or better, you are baking for twelve. Your child's job is to rewrite every quantity before anything gets weighed.

- Ask your child to halve or scale up every ingredient, out loud, before you start.
- Let them do the weighing and measuring themselves, including reading the scales part way between markings.
- Slip in conversion questions as you go: "the recipe says 0.5 litres, our jug shows millilitres, how much do we pour?"
- Stretch it: "if 250g of butter makes 20 biscuits, how much do we need for 30?"

WHAT THIS BUILDS

Fractions of amounts, ratio and proportion, scaling, converting units (g/kg, ml/l), and reading scales. These appear on every 11+ numerical reasoning paper in some form.

TRY THIS, EXAM STYLE

1. A recipe for 8 people uses 320g of flour. How much flour is needed for 5 people?
2. Amara needs 0.75 litres of milk. Her jug measures in millilitres. She has already poured 380ml. How many more millilitres does she need?

Answers: 200g • 370ml

The Supermarket Sweep

The weekly shop is a maths paper with a trolley. Give your child one real job each trip and let them own it. Start small, then hand over more as their confidence grows.

- Best value: "the 4-pack is £2.60 and the 6-pack is £3.60. Which is better value per item, and by how much?"
- Percentage offers: "this is 25% off £8. What do we actually pay?"
- The change game: pay with cash occasionally and have your child predict the change before the till shows it.
- The budget challenge: hand over £10 and responsibility for pudding for the week. Everything must be justified with numbers.

WHAT THIS BUILDS

Money calculations, percentages, unit pricing, comparing quantities, and multi-step problem solving, which is where most marks are won and lost under time pressure.

TRY THIS, EXAM STYLE

1. A shop sells juice in two sizes: 750ml for £1.80 or 1 litre for £2.30. Which is better value, and by how much per 100ml?
2. Trainers cost £48. In the sale there is 25% off. Dami has £35. How much more does he need?

Answers: the 1 litre bottle is better value, at 23p per 100ml against 24p per 100ml, so by 1p per 100ml • £1

Watch for: children who reach an answer but cannot explain it. On the second question, ask "how did you get that?" Explaining the steps is exactly what secures method marks in their heads.

3

The Journey Planner

This one earns its place twice over. Timetable questions are among the most commonly missed on 11+ papers, because many children simply have not read one before. So put your child in charge of a real day out.

- Choose the destination together, then hand over the train or bus timetable (the paper version or a printout works better than an app, because the exam uses tables, not journey planners).
- They choose the trains: "we need to arrive before 11:30. Which train do we catch, and how long is the journey?"
- Give them a budget for tickets and lunch, and have them cost the whole day in advance.
- On the day, they are in charge of the clock: "our train leaves at 14:52, it is now 14:17, how long have we got?"

WHAT THIS BUILDS

Reading tables, 24-hour time, time intervals and durations, money and budgeting, and holding several pieces of information at once, the core of multi-step reasoning.

TRY THIS, EXAM STYLE

1. A train leaves Sidcup at 09:47 and arrives at Charing Cross at 10:23. How long is the journey?
2. Tara must arrive by 12:15. Trains leave at 11:32, 11:47 and 12:02, and the journey takes 26 minutes. What is the latest train she can catch?

Answers: 36 minutes • the 11:47

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Measure the House

Estimation is a quiet superpower in the exam room: a child with good number sense spots an impossible answer instantly. This activity builds it with nothing more than a tape measure and the kitchen scales.

- Play estimate-then-measure: how long is the sofa? How heavy is the cat's food bowl? How much water does the kettle hold? Guess first, measure second, and see who in the family gets closest.
- Have your child draw a simple scale plan of their bedroom, with 1cm on paper for every 50cm of room.
- Ask perimeter and area questions off the back of it: "how much skirting board would we need? How many 50cm-square carpet tiles would cover the floor?"
- Mix the units deliberately: measure in centimetres, record in metres.

WHAT THIS BUILDS

Estimation and number sense, units of length, mass and capacity, converting between units, scale, and perimeter and area, all regular visitors on 11+ papers.

TRY THIS, EXAM STYLE

1. A rectangular room is 4m long and 3m wide. What is its perimeter? What is its area?
2. On a plan, 1cm represents 50cm. Eli's bed is 3.8cm long on the plan. How long is it in real life, in metres?

Answers: 14m and 12m² • 1.9m

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The Score Keeper

Appoint your child the family's official score keeper for the holidays. Any game with points works: rounders in the park, Uno, Monopoly, bowling, a running table-tennis tournament. The rule is simple: if it has a score, they record it.

- They keep a running score sheet across the break, one page per player, totals updated each time you play.
- At the end of each week, they work out each player's average score and announce the leader.
- Ask difference questions: "how many points is Dad behind? What would he need to score next game to take the lead?"
- If your game allows going below zero, all the better. Negative numbers learned through a scoreboard stick far better than negative numbers learned through a number line.

WHAT THIS BUILDS

Averages (the mean), running totals, difference and comparison, simple data handling and reading tables, and negative numbers, presented exactly as the exam presents them: as real information to interpret.

TRY THIS, EXAM STYLE

1. Josh scored 12, 18, 9 and 21 across four games. What was his mean score?
2. After five games, Ayo's mean score is 14. What is her total score so far? What must she score in game six to raise her mean to 15?

Answers: 15 • 70 in total, then 20 in game six

ONE HONEST NOTE BEFORE YOU GO

The part of the 11+ you cannot do in the kitchen

Everything in this guide works because applied maths responds well to little-and-often practice. Do these five things over a school break and your child will come back with noticeably stronger number sense.

But there is one part of the 11+ that does not work this way, and it is the part that most often decides the result: **comprehension and vocabulary**. A child cannot cram the meaning of unfamiliar words, or the ability to read between the lines of a passage, in a few weeks. That skill builds slowly, over a year or more of the right reading and deliberate word work. It is also the area where the strongest candidates pull away from the rest, because by exam day almost everyone has drilled the maths.

This is exactly why the families who start with us in Year 3 and Year 4 appear so often on our placement list. Time is the one ingredient no one can add later.

Wondering where your child stands right now?

Our £47 Diagnostic gives you an honest, detailed picture of your child's current strengths and gaps across every area the exam tests, with a clear written report and a conversation about what it means, no obligation attached.

[Book your child's 11+ Diagnostic →](#)

11 Plus Made Simple is a specialist small-group 11+ tuition practice serving families across Kent, Bexley and South East London. Groups are capped at five children. 87% of our families secure their first-choice school, with recent placements including The Judd School, Tonbridge Grammar, Colfe's, Eltham College and Alleyn's.