



✧ KS3 Maths – Preparing to move into GCSE

12–14 Years (School Year 7–9)



Key Areas of Study

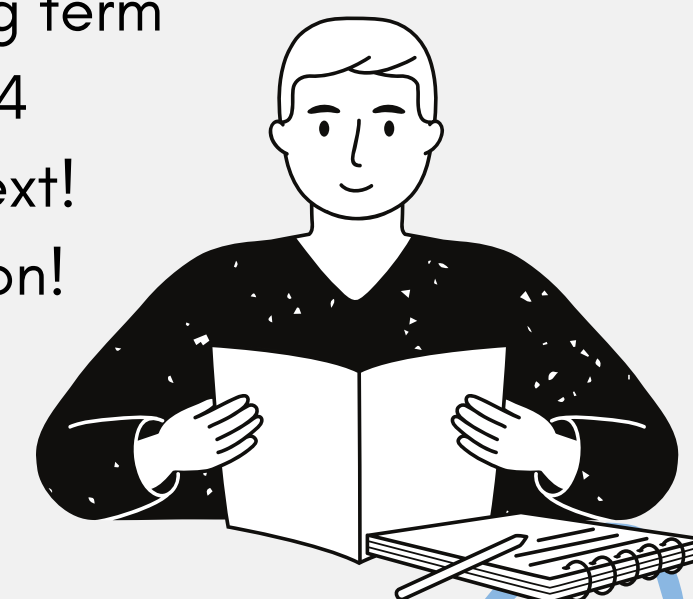
- **Number:**
 - Topics include: Place value, negative numbers, decimals, fractions, percentages, ratios and standard form
 - Skills: Calculating accurately, estimating, converting between forms
- **Algebra:**
 - Topics: Simplifying expressions, solving equations, sequences, substitution, graphs
 - Skills: Generalising, solving unknowns, understanding patterns
- **Geometry & Measures:**
 - Topics: Angles, 2D and 3D shapes, perimeter, area, volume and transformations
 - Skills: Measuring, estimating, visualising space, geometric reasoning
- **Statistics & Probability:**
 - Topics: Charts and Graphs, averages, probability experiments, interpreting data
 - Skills: Drawing conclusions, calculating chance and data literacy
- **Ratio, Proportion and Rates of Change:**
 - Topics: Proportion, scale factors, recipes, speed/distance/time problems
 - Skills: Reasoning proportionally, real-life problem solving



Rate of study adopted in schools...

| Strand | Year Group |
|--------------------------|---------------|
| Number | Year 7 |
| Algebra | Year 7/Year 8 |
| Ratio & Proportion | Year 8 |
| Geometry & Measure | Year 9 |
| Statistics & Probability | Year 9 |

This is just a guide of what is followed in schools. When adapting to Home Educating, this can take any form and be presented in whatever format you prefer. It is important to remember that schools generally allocate around 2.5–3.5 hours on average per week to Maths. All together over a year, this is around 133 hours... this would look more like 1.5–2.5 hours per week, excluding term time. This could mean your child could do 4 hours, one week.. and nothing at all the next! This would still constitute as a full education!

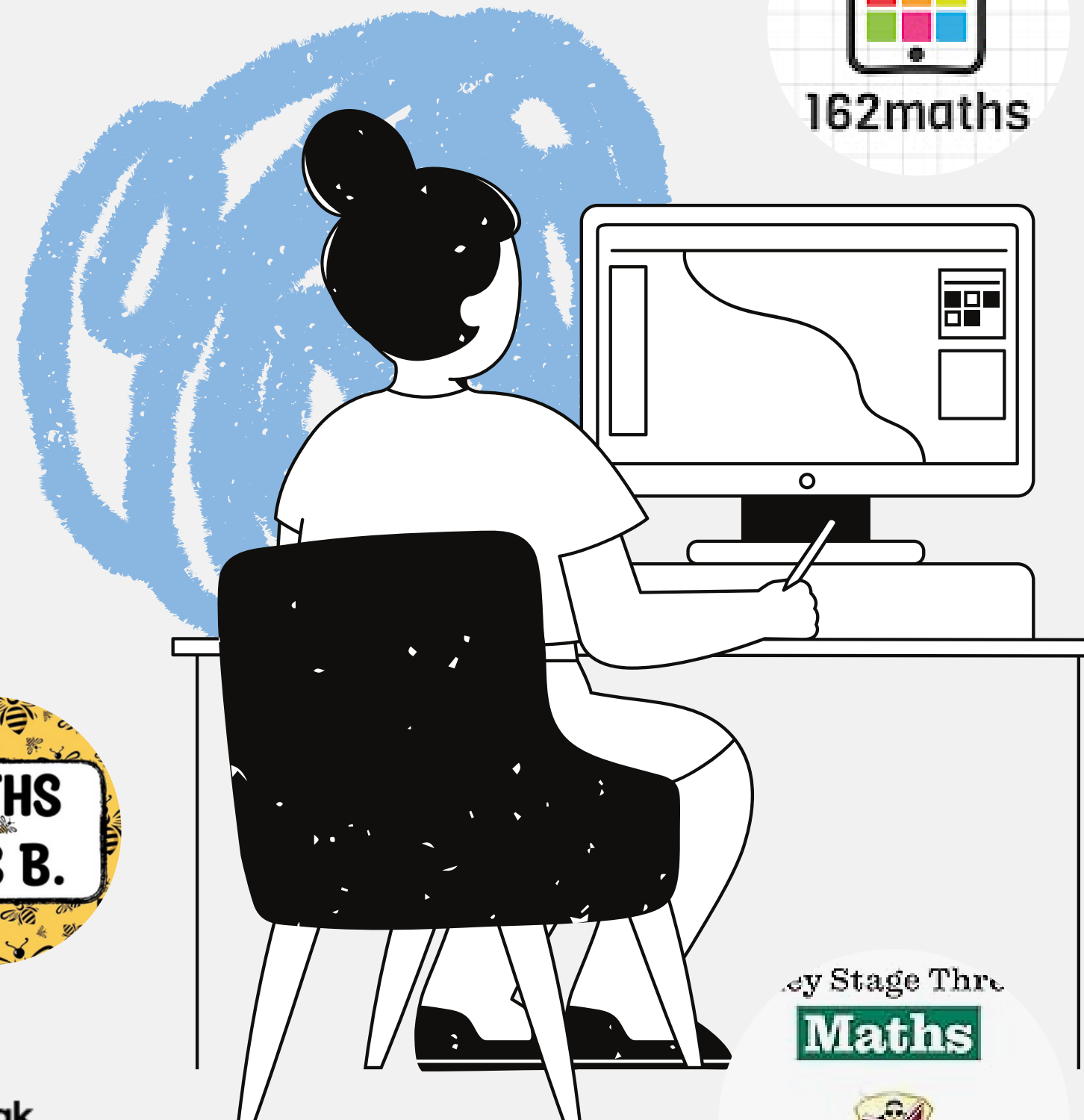
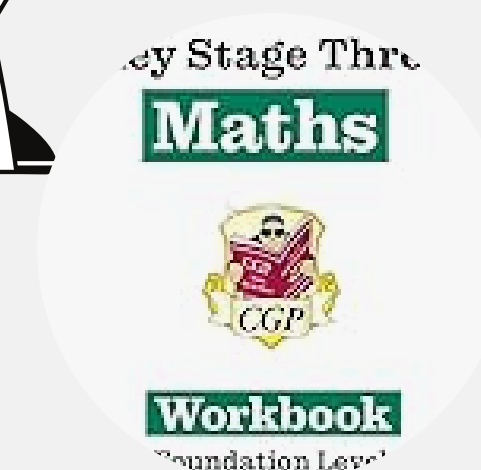
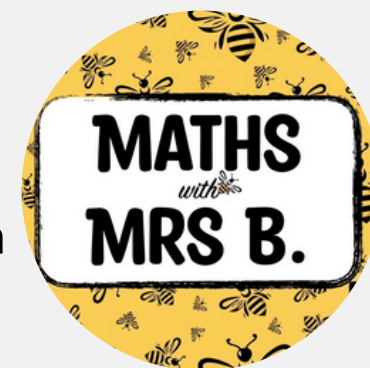
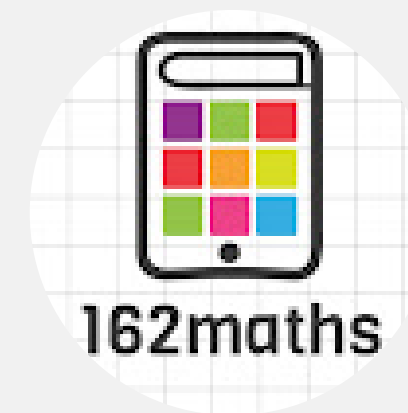




General Tools for Independent Learning

At this stage of learning, it is normal for children to access information to help them learn the topics more independently with tools such as:

- <https://www.youtube.com/@162maths>
- <https://www.bbc.co.uk/bitesize/subjects/zqhs34j>
- <https://www.tiktok.com/@mathswithmrsb>
- <https://www.thenational.academy/teachers/programmes/maths-secondary-ks3/units>
- <https://senecalearning.com/en-GB/>
- CGP Key Stage Three Mathematics: Targeted Workbook (Year 7/8/9)/10 minute weekly workouts/revision guides





How to begin..

01. Pick **1-2 topics per week** to focus on.

02. Use **video tutorials + worksheets** for each topic

03. Practise with **past paper-style questions** once topics are learned

04. End the week with a **fun puzzle or challenge**

Final notes: Supporting your child in KS3 maths

Workload and Pacing:

Every child is unique, and that's the beauty of home-education, but please remember:

- **Quality over Quantity:** It is better for them to understand a small topic than to rush through many fully. This may also mean some extra research to find explanations through video tutorials or step-throughs, which work for your child – don't just rely on one!
- **Build in Breaks:** Short bursts of focused learning (20–30 minutes) followed by a rest break work best for the majority of us.
- **Listen to your child:** If they are frustrated, it is ok to pause and come back to it later or try something different. The key is not to give up on it.
- **Flexibility is key:** Some days will be more productive than others, and that is normal!





You are not alone!

Supporting your child in maths does not mean doing it all by yourself. Think of this fact sheet as a toolkit, and I'm here at Nurtured Together to walk alongside you.

You can also find on the website a range of resources to further support your child in maths throughout key stage 3. Visit www.nurturedtogether.co.uk for more information.

Let's nurture confidence in maths, one step at a time.

Email me: nurturedtogether@gmail.com
for when you need that extra support

Make use of our Parent Workshops to continue learning how best to support your child.