



What does Math's look like at our school?

Vision

Mathematics is an important creative discipline that helps us to understand, 'make a difference' and change the World. We want all pupils at Dursley C of E Primary Academy to 'shine brightly' through experiencing the beauty, power and enjoyment of mathematics and develop a sense of curiosity about the subject.

At Dursley C of E Primary Academy, we foster positive 'can do' attitudes, believe all children can achieve in mathematics, and teach for secure and deep understanding of mathematical concepts. We use mistakes and misconceptions as an essential part of learning and provide challenge through rich and sophisticated problems before acceleration through new content.

Intent

We aim for all pupils to:

- Become fluent in the fundamentals of mathematics (see Year by Year Curriculum Maps) so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Solve problems by applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios.
- Reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.
- Have an appreciation of number and number operations, which enables mental calculations and written procedures to be performed efficiently, fluently and accurately.

'Together we **shine brightly** because together we **make a difference**'

Maths in Y1-Y6

Across the school, we teach the whole class so that everybody follows the learning journey together. Every lesson will be focused around a specifically-written 'WALT' (learning objective). The learning journey will be tracked across the 'Working Wall' and key concepts/methods/mathematical vocabulary will be clearly displayed to support pupils' learning. The learning journeys will follow 'manageable steps learning' – where the learning objectives are tightly focused and measurable within one lesson. Differentiation occurs through the use of adult support as well as immediate interventions during the 'Maths on Track session later that day. These may include pre-teaching mathematical concepts/vocabulary as well as immediately picking up on any areas that an individual pupil found challenging. We follow a lesson design that is based around a short input, followed by three tasks that are labelled as 'Do It', 'Secure It' and 'Deepen It'. We ensure that these tasks are not approached as a 'race' to get to the last one. The 'Secure It' or 'Deepen It' task will often be explored during a plenary so that all pupils have been exposed to problem solving and reasoning, daily.

Mathematics Lessons: Teach Up
M/T/W/T/F: (09:15 – 10:00)

'Learning Together'

'Support&Challenge'

Maths On Track Meetings: Keep Up
M/T/W/T/F (11:30 – 12:00)

Deliberate Practice Sessions
Arithmetic/Intervention/Practice

Each lesson focuses on a manageable step of new learning based on the NC statements. Typical Lesson design:

- 1) Hook It: Introduction
- 2) Teach It: Live modelling of the new learning with explicit use of potential misunderstandings
- 3) Practise It: All children practice together Support & Challenge
- 4) Do It: Up to 5 examples – 5 'What it is' or '3+2 'What it is/What it's also' Challenge 1: Procedural Fluency
- 5) Secure It: 1 or 2 Misunderstandings (True/false, Spot the mistake) Challenge 2: Conceptual Understanding
- 6) Deepen It: Apply understanding to solve new problems Challenge 3: Mathematical Thinking
- 7) Review It: Lesson Recap: Key Concept Statement and Key Vocabulary

Maths on Track Meetings

Key Stage 1= Mastering Number

Key Stage 2= MOTs

This is a session that is discrete from the main Mathematics lesson and is dedicated to pupils practising their mental maths fluency, arithmetic skills and knowledge of numbers. Like our main Maths lessons, we follow the structure set out by 'Can Do Maths' when identifying focus' for the session. One/two sessions a week are dedicated to deliberate practice and these are mapped out according to the areas that need developing which are identified through the previous half term's Remember It assessment. Both Key Stages have access to 'MOT Books' which they can use during their 'MOT' time to explore their own understanding. These books are self-marked and personal to pupils however, teachers can access these to take evidence from when assessing if needed.

Mixed Year Group Settings

In our mixed year group settings, children are taught within their year group. The structure involves the year group splitting out into a different area of the classroom to ensure clarity. Live feedback is utilised to ensure that pupils are always approaching a task that is most suitable to their learning need. Some pupils may need to continue on the fluency tasks past the six provided, others may only need to complete two of these questions – this is up to the teacher's discretion as to whether more confidence is needed with the concept. This may sometimes involve questions such as 'Can you show me another way?' or 'Prove it' where pupils will respond – this may also be during feedback time outside of the Mathematics lesson.

Activity examples

'Do it' examples	'Secure it' examples	'Deepen it' examples
<ul style="list-style-type: none">• What is it/what is it not (particularly with shape)• Fluency questions• Practise	<ul style="list-style-type: none">• True or false questions• Explain to me how to...• Writing/explaining their own steps to success for a given problem (great for vocabulary)• Give somebody (within a scenario) some top tips for getting it correct next time• Odd one out• Multiple choice questions (<i>why is this one wrong? Why is this one correct?</i>)• Alternative representations• Prove it...• Create your own rule• Correct the mistake• Questions focusing on the use of efficient methods	<ul style="list-style-type: none">• Always/sometimes/never• Missing box equations/digit card questions• Word problems• Write your own word problem• Finding an answer with given boundaries/conditions ... <i>Add two 3-digit numbers where the total is an even number which, when rounded, rounds to 500.</i>• Transferring to a different context• Here's the answer, what's the question• Substitution (moving into algebra)