



Totley All Saints
Growing & learning together!

Maths

**Helping your Child
Develop the Skills to
Achieve
Greater Depth**



Dear parents & carers,

As you will be aware, the current Y6s will be taking their Standard Attainment Tests (SATs) towards the end of the year. As part of our drive to challenge our children, as well as help them to reach their full potential, your child has been identified as *possibly* having what it takes to reach the “greater depth” Maths standard for Year 6.

Whilst we will of course be doing all that we can at school to challenge your child in Maths, we are of course aware that parents & carers may wish to help & support their child at home.

This booklet aims to share just a few ways in which you can support your child as they aim for those higher level maths skills!

Working together in the education of your child,

Karole Sargent
Headteacher

What is greater depth?

More able pupils are not encouraged to move up to the learning being taught in the year above, but to spend time ensuring that they have fully grasped the learning in their own year group and are able to explore this in variety of ways.

We can compare it to looking round a house. You could quickly explore a large house by moving up floor to floor, however the house can be experienced in much greater detail if you stop to really look at the rooms on each level!

This means that pupils working at greater depth should be able to:

- **Apply** their skills and knowledge consistently, confidently and fluently.
- **Transfer** their learning to different contexts.
- **Organise** their ideas to make connections with other areas of learning.
- **Explain** what they have done and why they know they are correct.
- **Prove** whether or not something is true, giving examples.



So greater depth is **not**...

- Working on content from the next year group.
- Practising the same concept with bigger numbers.
- Reading more challenging mathematical words.

Fluency, reasoning, problem solving

These are the key areas of mathematics that we will be working on in Year 6:

- Becoming **fluent** by practising skills in varied ways, so that they can recall and apply their knowledge rapidly and accurately.
- Being able to **reason** mathematically by making generalisations, and proving statements using mathematical language.
- **Solving problems** by applying mathematical skills in different ways.

Important mathematical language

- Explain
- Justify
- Express
- Give examples
- True or false
- Odd one out



Greater depth examples

Lots of fun activities and investigations to develop mathematical skills and reasoning can be found on <https://nrich.maths.org>.

Recognise that shapes with the same areas can have different perimeters and vice versa

Explain why 2 rectangles with the same area can have different perimeters.

Expressions

Express missing number problems algebraically.

p is 3 more than twice q.

Express this algebraically.

Simplify $a + b + a - b + a + b$.

Angles

Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and know the angles in common regular polygons.

Complete the criteria for this Carroll diagram:

	All sides equal length	Sides not all equal length
Has a right angle		
Has no right angles		

Know the internal angle of a hexagon.

Explain why the missing angle in this triangle is 35° .



Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.

Calculate angle V.



Mean

Calculate and interpret the mean as an average.

Here are some scores in a times tables test taken by 6 children. What is the mean of the results?

6	4	9	8	2	7
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In another test, the same 6 children achieved a mean of 12. Here are 5 of the scores. Explain how to find what is the sixth score.

18	13	10	7	13	
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Counting

Use negative numbers in context, and calculate intervals across zero.

What number is the difference between 12 and -17?

Explain why $-12 - 7$ is -19 and not -5.

A man has £12 in cash and owes a friend £20. How much money has the man?



Unequal Sharing

Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

A book has 120 pages divided into 5 equal chapters.

Amy has read $\frac{3}{4}$ of the book, and Janek has read 3 chapters. How much more has Amy read?

