

Mathematics at Settle Primary School

Parents' Evening

5+5 6+4 7+3 8+2 9+1

Math at Home

...and all around us!

GROWTH MINDSET

"Failure is an opportunity to grow"

"Challenges help me to grow"

"I can learn to do anything!"

"I like to try new things!"

FIXED MINDSET

"Failure is the limit of my abilities"

"I'm either good at it or I'm not"

"I can't do it"

"My potential is predetermined"

"When I'm frustrated, I give up!"

"I stick to what I know"

Math BUZZ...

SCIENCE

At Home

In counting

In Shapes, Curves & Patterns

In Games & Puzzles

In story

School and Work

Patterns

A Conversation between Patrick (aged 4) and Mark (professor in teaching of mathematics):

- Patrick: What is four and one more?
- Mark: Six
- Patrick: What is four giraffes and one more?
- Mark: Five giraffes
- Patrick: What is four elephants and one more?
- Mark: Five elephants
- Patrick: What is four and one more?
- Patrick (looks him in the eye): Six.

OBJECTIVES

- Help create a 'growth mindset' attitude towards mathematics.
- Understand what is meant by 'Mastery' in mathematics.
- Explain and demonstrate how mathematics is taught at Settle Primary School.
- Increase confidence and understanding in supporting your child at home.
- Create a 'Maths Buzz'!

OBJECTIVES

Help create a 'growth mindset' attitude towards mathematics.

I have a **GROWTH MINDSET.**

I am in charge of how smart I am because I can **GROW** my **BRAIN** like a muscle by learning hard things.

I can **ACHIEVE ANYTHING** with **EFFORT** and **RIGHT STRATEGIES.**

And when I fail or make a mistake, it is a **GREAT** thing, because I can **LEARN** from them and **I GET BETTER!**

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We believe that everyone can get better at maths...when they put in the effort and work at it.

- Do not praise children for being clever when they succeed at something, but instead should praise them for working hard.
- Children learn to associate achievement with effort (which is something they can influence themselves – by working hard!), not 'cleverness' (a trait perceived as absolute and that they cannot change).

YOU ARE AWESOME

Find your confidence and dare to be brilliant at anything!

Matthew Syed

The YOU ARE AWESOME Journal

DARE TO FIND YOUR CONFIDENCE AND MAKE EVERY CHANGE THE WORLD!

Matthew Syed

FIXED vs **GROWTH**

Mindsets

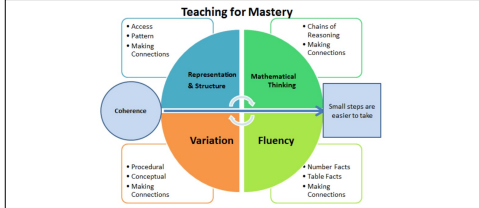
If children hear 'I can't do maths' from parents, teachers, friends they begin to believe it isn't important.

People become less embarrassed about maths skills as it is acceptable to be 'rubbish at maths'.

OBJECTIVES

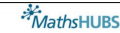


Understand what is meant by 'Mastery' in mathematics.



- Vocabulary
- Questioning
- Full sentences with sentence scaffolds
- Reasoning and explanation
- Problem solving

What does it mean to master something?



- I know how to do it
- It becomes automatic and I don't need to think about it- for example driving a car
- I'm really good at doing it – painting a room, or a picture
- I can show someone else how to do it.

How do you know?
Can you show me?
Prove it to me...
Can you show me in a different way?

“In mathematics, you know you've mastered something when you can apply it to a totally new problem in an unfamiliar situation.”

Dr. Helen Drury, Director of Mathematics Mastery

Mastery of Mathematics is more.....

- Achievable for all
- **Deep** and sustainable learning
- The ability to build on something that has already been sufficiently mastered
- The ability to reason about a concept and make connections
- Conceptual and procedural fluency

How do you know?
Can you show me?
Prove it to me...
Can you show me in a different way?

https://planetparent.com/episodes/ Episode 3: Kate Mole



Teaching for mastery explained for parents
Want an easy way to explain mastery to your pupils' parents? Point them to this podcast.

Mastery is about equipping children with the skills to grasp mathematical concepts rather than procedures and tricks to get right answers, which offer 'very shaky foundations to be able to cope later with more complex mathematics'.
The mission is to embed real understanding of maths at a conceptual level and move – once and for all – away from a 'learning by rote' mindset that's become entrenched.
Deep, secure and sustained understanding.

Language

Maths Talk

We are learning to recognise the relationship between numbers in division equations.

Divide 12 books into groups of 2.

There are 12 books altogether. We are dividing 12 into groups of 2. I am going to group the units in twos, 2, 4, 6, 8, 10, 12.

There are 6 groups of 2. 12 divided by 2 is equal to 6.

There are ___ groups of 2. $12 \div 2 = \square$

OBJECTIVES



Explain and demonstrate how mathematics is taught at Settle Primary School.

Thinking CAPS and Calculation Strategies



	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
+
-
x
÷

Addition-

Key language which should be used: sum, total, parts and wholes, plus, add, altogether, more than, 'is equal to' 'is the same as'

Concrete	Pictorial	Abstract
Combining two parts to make a whole (use other resources too e.g. eggs, shells, teddy bears etc)		$4 + 3 = 7$ (four is a part, 3 is a part and the whole is seven)
Counting on using number lines by using cubes or numicon	A bar model which encourages the children to count on	The abstract number line: What is 2 more than 4? What is the sum of 4 and 4? What's the total of 4 and 2? $a + 2$
Regrouping to make 10 by using ten frames and counters/cubes or using numicon	Children to draw the ten frame and counters/cubes	Children to develop an understanding of equality e.g. $6 + \square = 11$ and $6 + 5 = 5 + \square$ $6 + 5 = \square + 4$

TO + O using base 10. Continue to develop understanding of partitioning and place value	Children to represent the concrete using a particular symbol e.g. lines for tens and dots/forces for ones.	$41 + 8$ $1 + 8 = 9$ $40 + 9 = 49$
TO + TO using base 10. Continue to develop understanding of partitioning and place value and use this to support addition. Begin with no exchanging. $36 + 25$	This could be done one of two ways:	Looking for ways to make 10 $36 + 25 =$ $30 + 20 = 50$ $5 + 5 = 10$ $50 + 10 + 1 = 61$ Formal method: 36 $+25$ <hr/> 61 1

KS2
MATHS

I Am Learning: KS2 Maths
Frog Education Ltd
★ ★ ★ ★ ★ 2.5, 13 Ratings
£1.99

Key Stage 2 Mathematics

What is the area of this rectangle?

WHACK A MONKEY!

...in Year 6

Looking at rolling out to other year groups.

MyMaths.co.uk

Times Tables Rock Stars

Years 1 - 6

Years 3 - 6

Settle Primary School

Home About Parents Learning Classes Activities Calendar Contact

Mathematics

Read about how we teach maths at Settle Primary School and how you can support your child at home.

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Numicon

Maths at Home

Maths at Home

At Home Kit

5+5 6+4 7+3 8+2 9+1

Numicon take home sacks

OBJECTIVES

Create a 'Maths Buzz'!

Christmaths

Σn = (n(n+1))/2

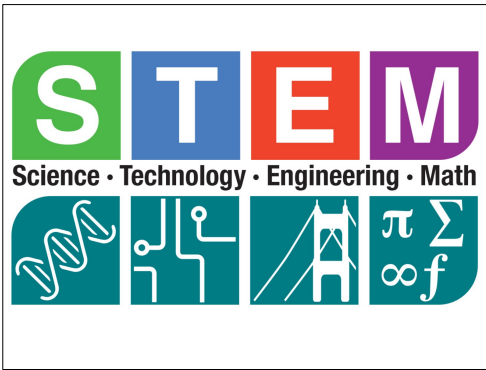
2n = 2n

2n = 2n

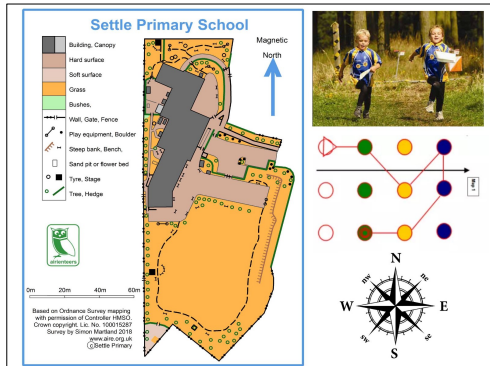


EASTER
EGGSTRAVAGANZA





Maths and Orienteering



I hope you now have a feel for what we do at school and some ideas for how you can support your child at home to help them develop a positive mindset when it comes to maths!

Don't forget, if there's anything specific your child struggles with, please speak to your child's class teacher directly.

