Early Years Foundation Stage

Maths at Holmesdale

- At Holmesdale Infant school we follow a mastery approach to the teaching of mathematics. Maths Mastery is a teaching and learning approach that aims for pupils to develop a deep understanding of maths rather than being able to memorise key procedures or resort to rote learning.

- The end expectation is for all pupils to have acquired the fundamental facts and concepts of maths for their year group, so that by the end of it they have achieved mastery in the maths they have been taught. At this point they are ready to move confidently on to their next stage of maths.

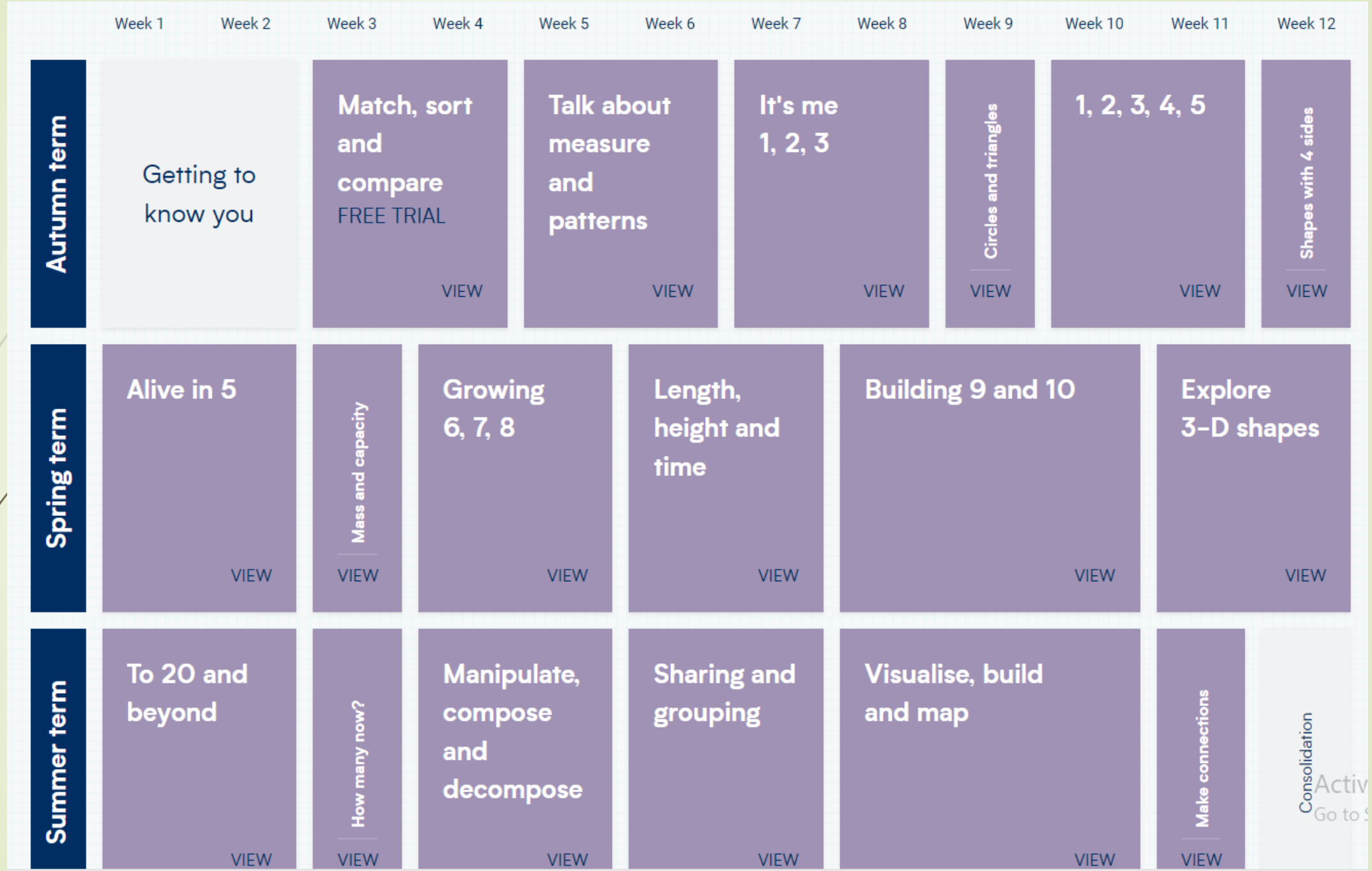
- Mastery of a mathematical concept means a child can use their knowledge of the concept to solve unfamiliar word problems, and undertake complex reasoning, using the appropriate mathematical vocabulary.

Children in Reception	• Count objects, actions and sounds. • Subitise. • Link the number symbol (numeral) with its cardinal number value. • Count beyond ten. • Compare numbers. • Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10. • Select, rotate and manipulate shapes to develop spatial reasoning skills. • Compose and decompose shapes so that children recognise a shape can have other shapes *within* it, just as numbers can. • Continue, copy and create repeating patterns. • Compare length, weight and capacity.	
ELGs	**Number** • Have a deep understanding of number to 10, including the composition of each number. • Subitise (recognise quantities without counting) up to 5. • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.	**Numerical Patterns** • Verbally count beyond 20, recognising the pattern of the counting system. • Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

White Rose Maths Scheme

At Holmesdale Infant school we have adopted the **White Rose Maths** scheme as our main approach to teaching our children. As part of this approach, we teach an overarching block of learning about a particular topic, such as place value and this is then broken down into small steps of learning. The yearly frameworks are aligned with the Early Years Curriculum and plan out children's journey to mastery by ensuring they tackle learning objectives in a logical order.

EYFS


Week 1
Week 2
Week 3
Week 4
Week 5
Week 6
Week 7
Week 8
Week 9
Week 10
Week 11
Week 12
Autumn term
Getting to know you
Match, sort and compare
FREE TRIAL
VIEW
Talk about measure and patterns
VIEW
It's me 1, 2, 3
VIEW
Circles and triangles
VIEW
1, 2, 3, 4, 5
VIEW
Shapes with 4 sides
VIEW
Spring term
Alive in 5
VIEW
Mass and capacity
VIEW
Growing 6, 7, 8
VIEW
Length, height and time
VIEW
Building 9 and 10
VIEW
Explore 3-D shapes
VIEW
Summer term
To 20 and beyond
VIEW
How many now?
VIEW
Manipulate, compose and decompose
VIEW
Sharing and grouping
VIEW
Visualise, build and map
VIEW
Make connections
VIEW
Consolidation

Early learning Goal

- Numbers: Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.

- Numerical Patterns: Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

How has Maths Changed since I was at school?

- Maths hasn't changed, we are still teaching mostly the same methods you were taught at school but what has changed is how we look at the **different representations** of maths e.g. 10 frames and place value counters and now we teach them **multiple methods**

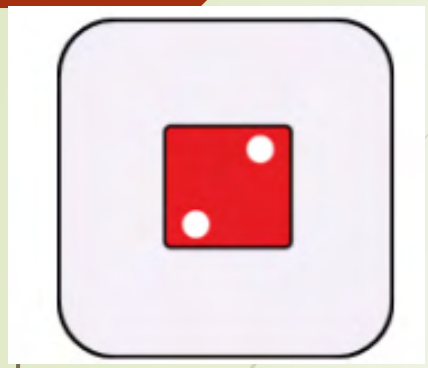
Why Teach multiple methods?

- My teaching them multi methods we are encouraging flexible thinking so that children can start to choose the most efficient method which may not always be the same

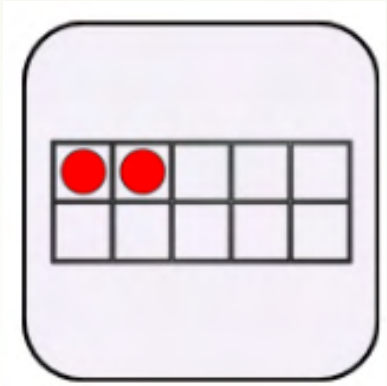
- Research has shown that multi representations help children to grow a deeper understanding of the methods behind the maths

- By teaching them different ways to solve problems each individual method/representation shows something slightly different which then provides them with a toolkit to help solve more complex problems later on

Representations seen in EYFS



dice



5 frames or 10 frames

Any everyday objects

Interlocking cubes

Why do we spend so long teaching the basics?

- Focusing on building the blocks of maths throughout the year. The children spend lots of time working on number facts looking at a few numbers at a time. The numeral, its value the composition of the number and one more and less.

- Firm foundations are crucial to building up on their previous skills and knowledge enabling them to access other areas of maths more quickly. As you can see there is a clear progression of teaching number facts throughout the year. With the Summer term beginning with the unit 20 and beyond to support reaching ELG.

- A significant amount of time is spent reinforcing number in order to build fluency and competency and to make sure children can confidently access the rest of the curriculum in future years. Children will have the opportunity to work with physical objects/concrete resources, in order to bring the maths to life and to build understanding of what they are doing. Alongside concrete resources, children should work with pictorial representations, making links to the concrete. Visualising a problem in this way can help children to reason and to solve problems.

What is CPA?

Concrete – Pictorial – Abstract (CPA)

Research shows that all children, when introduced to a new concept, should have the opportunity to build competency by following the CPA approach. This features throughout our schemes of learning.

Concrete

Children should have the opportunity to work with physical objects/concrete resources, in order to bring the maths to life and to build understanding of what they are doing.

Pictorial

Alongside concrete resources, children should work with pictorial representations, making links to the concrete.
Visualising a problem in this way can help children to reason and to solve problems.

Abstract

With the support of both the concrete and pictorial representations, children can develop their understanding of abstract methods.

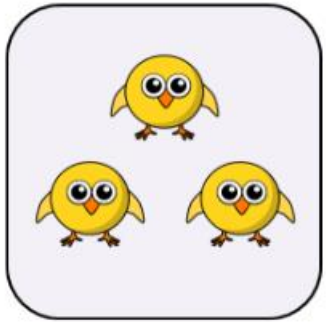
5 + 7

Children will develop subitising skills

- At its simplest, subitising is being able to visually see a number of objects instantly without needing to count them out one at a time.
- Subitising helps children to see, solve, and manipulate numbers in their head.
- This develops their number sense and helps them master key calculation strategies at an early stage.
- Often young children learn to count but don’t fully understand the relationship between numbers and amounts.

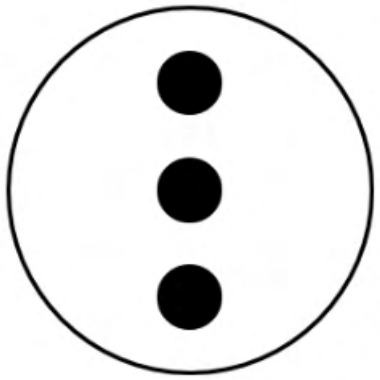
Subitising

How many?

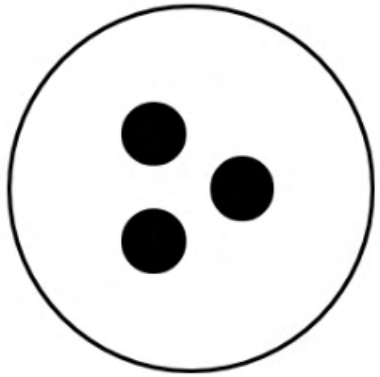


I can see 3

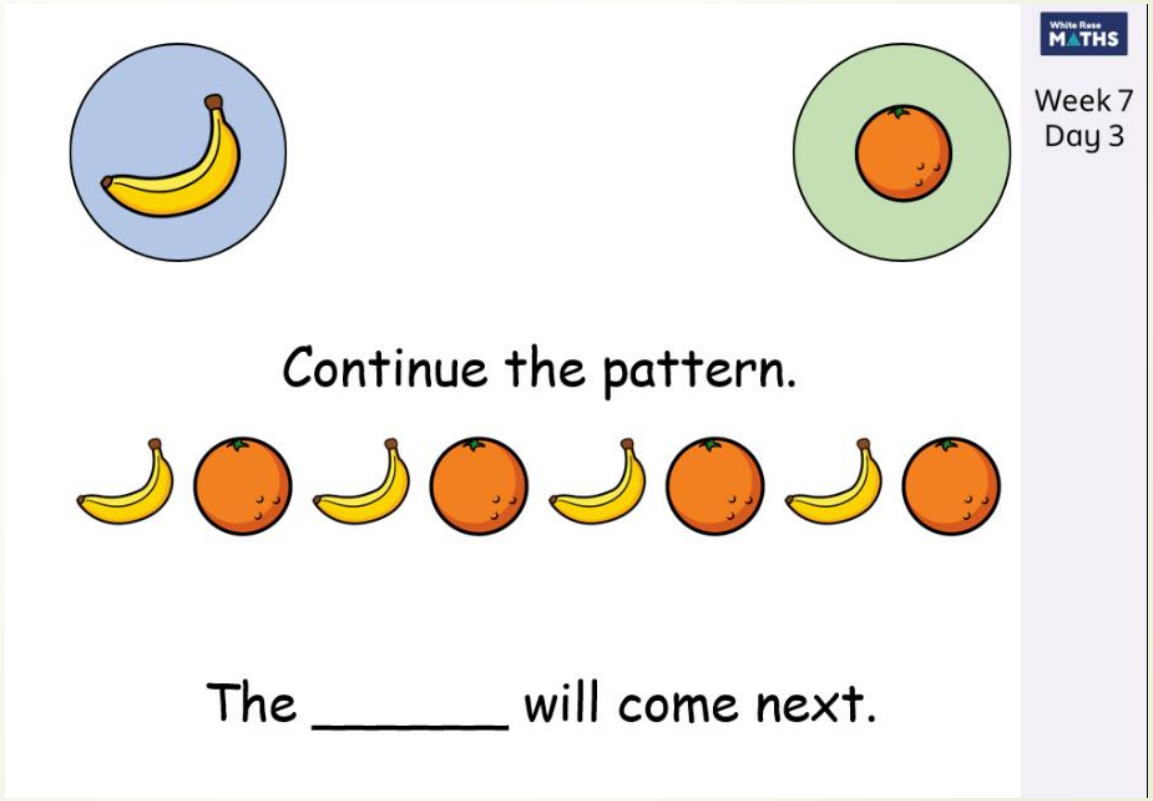
How many dots?



How many dots?



Every lesson begins with a starter this will be prior learning that the children will revisit



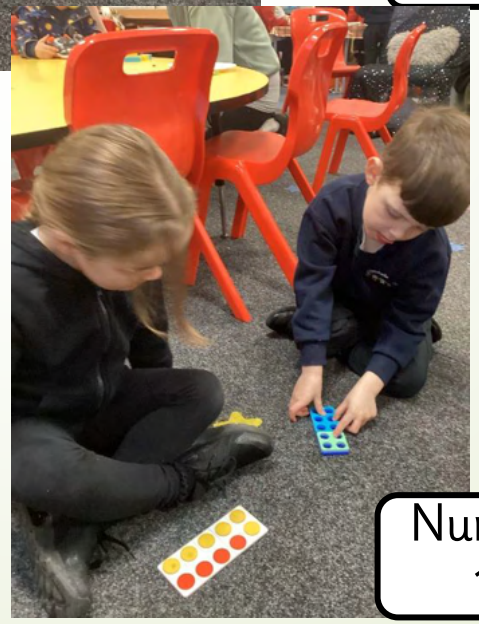
Exploring learning practically

Comparing weight

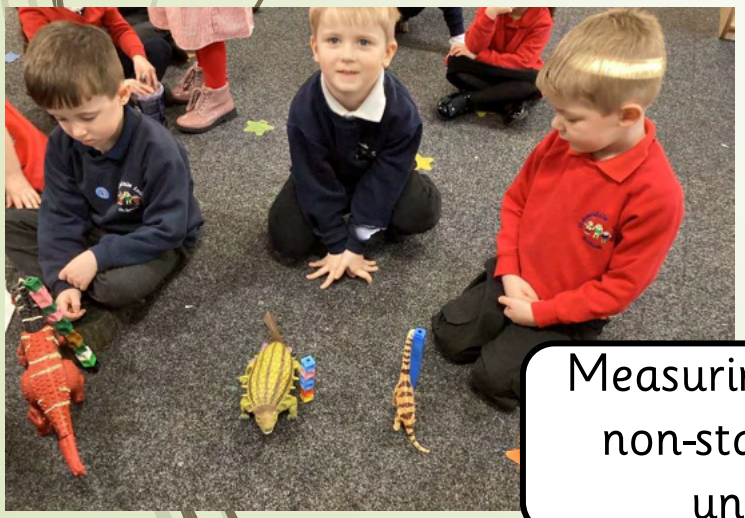
Representing and comparing numbers 0-10

Exploring numbers 0-5

Sorting Objects



Number bonds to 10 (2 parts)



Measuring using non-standard units

The children's learning will be evidenced in a class floor book which will include photos, work and pupil voice. This will be available to the children in class to look back on their learning to allow them to make links and reflect on their learning.

Prior learning is revisited in challenges within classrooms

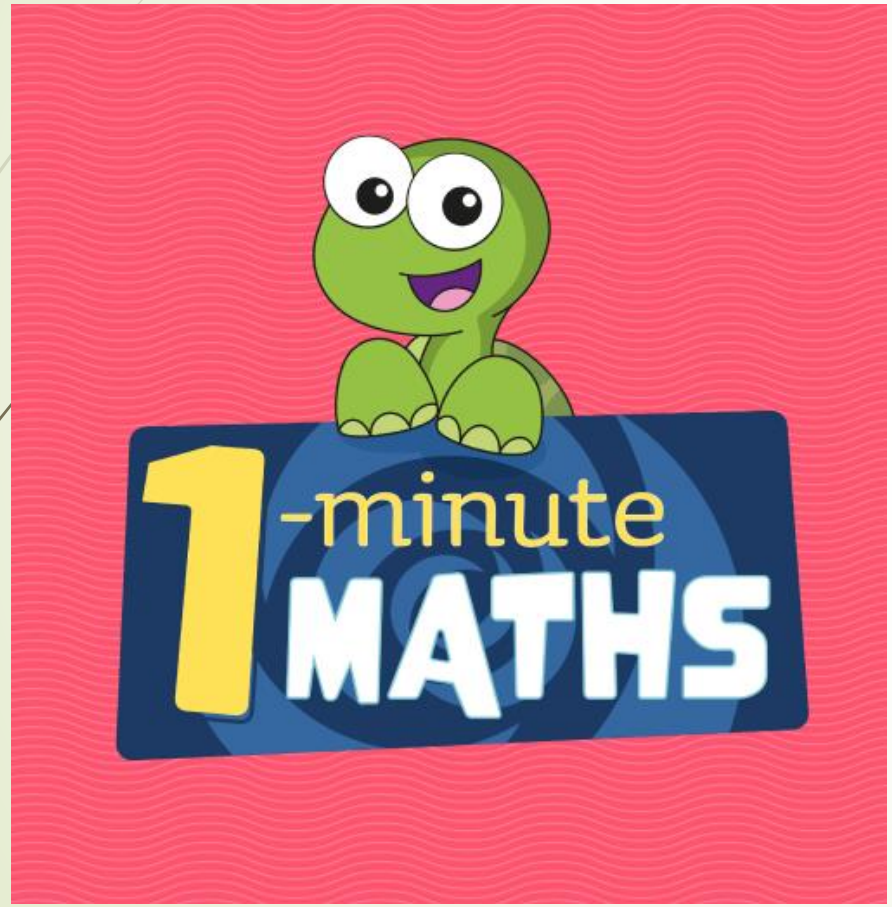
How can you help your child with becoming secure maths at home?

Follow the link to Maths with Michael to access the parent guidance for the different units of maths such as Place Value.

Maths with Michael

We've teamed up with TV presenter, teacher and parent Michael Underwood to bring you a mini-series called Maths with Michael.

Download the 1 minute White Rose Maths app



- Model and reinforce key vocabulary which will be sent home to support each unit we have taught with homework

- Support them to complete homework using the methods and representations they have been learning and using at school this will usually be through activities sent out on evidence me

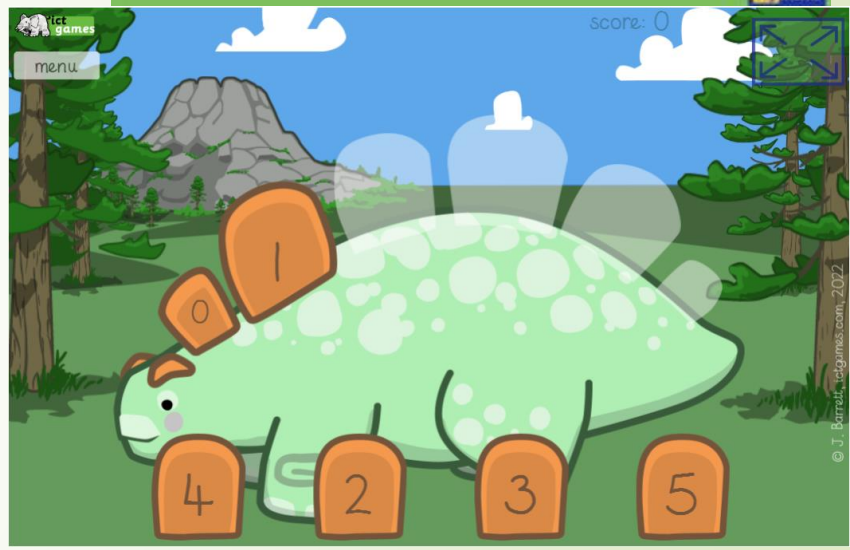
- Have fun with maths at home – Maths monkey will be sent to your child within the year

- Speak to your child's class teacher if you need any further support

- Thank you for attending this evening and supporting your child's maths journey at Holmesdale and helping them to ***'Be the Best Me I can Be'***

Useful free online maths games

- https://www.topmarks.co.uk/maths-games



- https://ictgames.com/mobilePage/index.html

- KS1 Maths - BBC Bitesize