


EYFS Mathematics Workshop

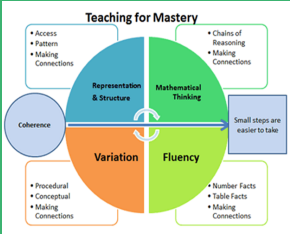
Wednesday 2nd October



WHITCHURCH
COMBINED SCHOOL

Sep 20-10:18

The Mastery Approach



At Whitchurch Combined School we follow a Mastery approach to teaching delivered primarily by White Rose Maths and follows 5 key principles.

5 Key Principles.docx

Sep 20-10:21

The Mastery Approach

An important part of all our lessons is a revisit knowledge from the previous day or previous week. This allows knowledge to be regularly revisited and embedded into the long term memory.

Sep 20-10:26

EYFS Maths Curriculum

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 in order 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.

Early Learning Goals

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

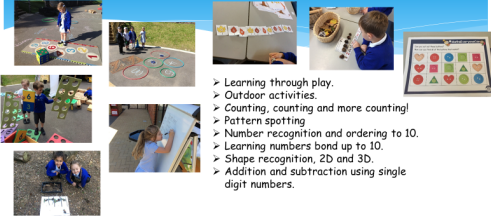
- Verbally count beyond 20, recognising the pattern of the counting system.
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

Sep 23-16:13

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

Sep 25-16:27

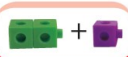
What does Maths looks like in EYFS?




- Learning through play.
- Outdoor activities.
- Counting, counting and more counting!
- Pattern spotting
- Number recognition and ordering to 10.
- Learning numbers bond up to 10.
- Shape recognition, 2D and 3D.
- Addition and subtraction using single digit numbers.

Sep 25-16:20

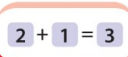
CPA Approach



CONCRETE



PICTORIAL



ABSTRACT

Sep 25-16:32

What is CPA?

C is for concrete. New concepts are introduced through the use of physical objects or practical equipment. These can be physically handled, enabling children to explore different mathematical concepts. These are sometimes referred to as maths manipulatives and can include ordinary household items such as straws or dice, or specific mathematical resources such as dienes or Numicon.

P is for pictorial. Once children are confident with a concept using concrete resources, they progress to pictorial representations. By doing this, they are no longer manipulating the physical resources, but still benefit from the visual support the resources provides.

A is for abstract. Once children have a secure understanding of the concept through the use of concrete resources and visual images, they are then able to move on to the abstract stage. Here, children are using symbols to solve problems. To be able to access this stage effectively, children need access to the previous two stages alongside it.


Sep 25-16:33

See Calculation Policy


Sep 25-16:18

Alternatives to maths resources


Counters



3D shapes




Counting Bears




or you could use.....


Smarties



groceries



anything you have a lot of!



Sep 25-16:34

You can use anything you have around the house

Pasta for counting



Cards for number recognition and counting



Chewits for counting



Magnetic numbers for number recognition



Toys to put in size order



Sep 25-16:34

Don't Forget Outside



Sep 25-16:34

How can you support at home?

- Take away their fear.
- Reassure and praise whenever possible. Positive mindset...
- Let them see you using Maths in your everyday routines - portioning meals between the family, chopping vegetables into halves and quarters etc.
- Play with numbers and shapes through games.
- Seeing mistakes as an opportunity to learn and using them as a discussion point.
- Recognising the **importance** and value of Maths in our everyday lives e.g. managing money and telling the time.

Sep 25-16:30

How can you support at home?

- Count - steps up the stairs, money into a money box etc
- Ask children to say how many without counting (5 or fewer)
- Play games using dice/dominos and encourage child to say how many spots without counting.
- Ask children to set the table with enough knives, forks and plates for everyone.
- Spot numbers in the environment – on phones, microwaves, clocks, registration plates, doors.
- Ask children to think of their own representations for numbers eg one of them, two hands, three bears, four wheels on a car, five toes, six sides on a dice, seven dwarves, eight legs on an octopus etc
- Deliberately make mistakes. Children need to understand mistakes are normal and everyone makes them eg get mixed up when counting, muddle two numbers when ordering them.
- Watch Numberblocks on Cbeebies. This programme is written by maths specialists to model maths concepts and represents number brilliantly. Also, Numberjacks is excellent for solving problems.

Sep 25-16:30

How can you support at home?

- Hide numbers around the house or garden for children to find.
- Play outdoor maths games like hopscotch and skittles. Even better, let children make up their own games and decide how to score points.
- Read books with maths concepts eg The Very Hungry Caterpillar, One is a snail, ten is a crab, What's the time, Mr Wolf? The doorbell rang.
- Draw attention to more and less.

Sep 25-16:30

Ten Frame

A ten frame is a simple tool for teaching Maths. They help children to develop number sense and early Numeracy skills. Number sense develops gradually in children from birth to five.


Ten frames are two-by-five rectangular frames that form a base for which objects like counters can be placed. Using this device, youngsters can practice with numbers from one to ten. By using ten frames, children can develop number sense in a visual and physical way, which is great news for their memory cognition as it activates all parts of the brain.

Why Are Ten Frames So Useful?

As ten frames are so visual, they are a great tool for helping children acquire a skill called subitizing. Subitizing is when a child can instantly recognise 'how many' of something there is without having to count. Hold out your hand and place a number of coins on your palm. Can you tell how many there are without counting them out one by one? Then you're subitizing!

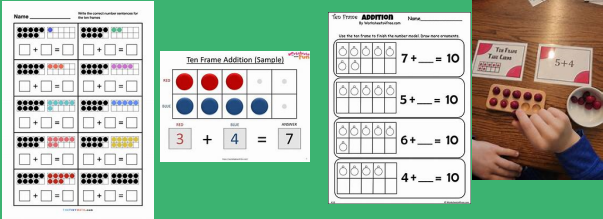
It works the same way with dice. When children's subitizing skills grow, they can tell what number they have rolled on the dice without counting the individual dots.

These rectangular frames are very versatile and can be adapted to a number of different classroom activities. And what's more, children can apply the knowledge gained from the ten frame system when counting to larger numbers, too.



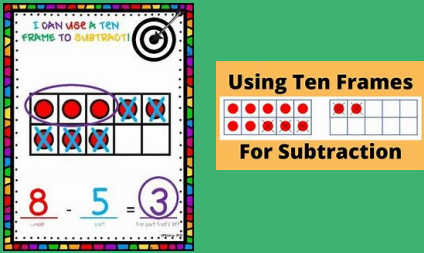
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Addition with a ten frame:

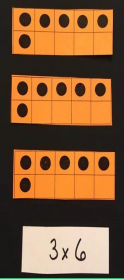


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Subtraction Using a 10 frame:




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


3x6


Multiplication on a 10 frame:




1+1=2



2+2=2





3+3=6




4+4=8

Doubles on tens frame

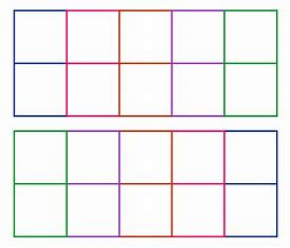
1.  9 + ____ = ____


2.  ____ + ____ = ____

3.  ____ + ____ = ____

Oct 2-12:11

Division using a 10 frame:





Oct 2-12:15

Useful Documents

Maths Dictionary <https://farnboroughprimary.co.uk/wp-content/uploads/2022/09/Primary-Maths-Dictionary.pdf>

Ways to make ten frames: <https://earlyimpactlearning.com/ten-frames/>

Book list: See website

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Attachments

5 Key Principles.docx