Maths at Mickley Village Primary & Nursery School

14th March 2024

The purpose of the workshop is:

- To gain an insight into how Maths is taught at Mickley Village Primary & Nursery School
- To gain an understanding of the Maths National Curriculum and expectations
- To take away some ideas to support your children at home

Attitudes towards Maths

- The best thing that parents and carers can do for children is to have a **positive attitude** towards maths. Please don't say things like "I can't do maths": your child might start to think like that themselves.

- **Point out maths in everyday life.** Include your child in activities involving maths such as using money, cooking and travelling.

- **Praise your child for effort rather than talent** - this shows them that by working hard they can always improve.

National Curriculum Aims

Aims for all pupils to:

- become **fluent** in the fundamentals of mathematics. Through varied and frequent practice, pupils develop their conceptual understand and can recall and apply knowledge rapidly and accurately.

- **reason** mathematically by following a line of enquiry, and develop and justify an argument using mathematical language.

- can **solve problems** by applying their mathematics to a variety of problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Early Years Framework

Mathematics

Number

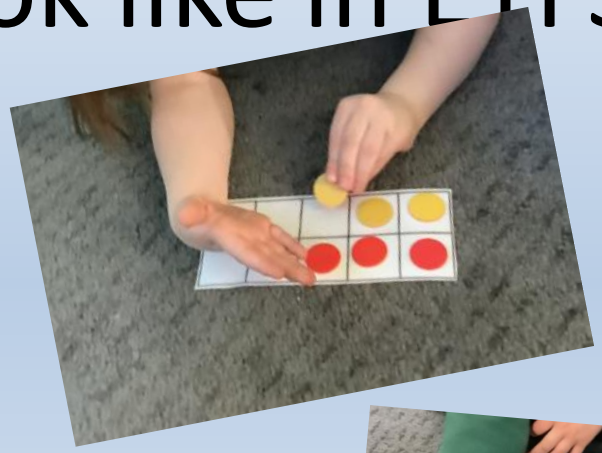
- Have a deep understanding of number to 10, including the composition of each number.
- Subitise (recognise quantities without counting) up to 5.
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, 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.

What does Maths look like in EYFS?

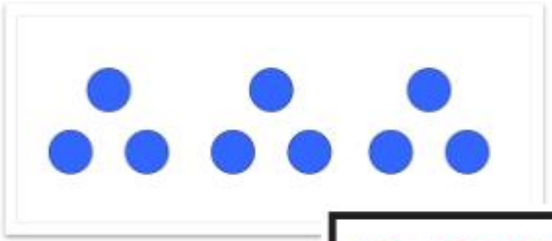
- Learning through play
- Outdoor activities
- Counting, counting and more counting!
- Pattern spotting
- Number recognition and ordering to 10
- Learning number bonds up to 10
- Shape recognition, 2D and 3D
- Addition and subtraction using single digit numbers

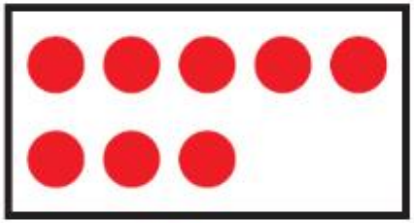


Subitising

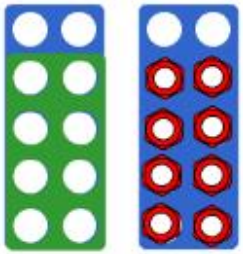
Subitising

= Instantly recognising the number of objects in a small group





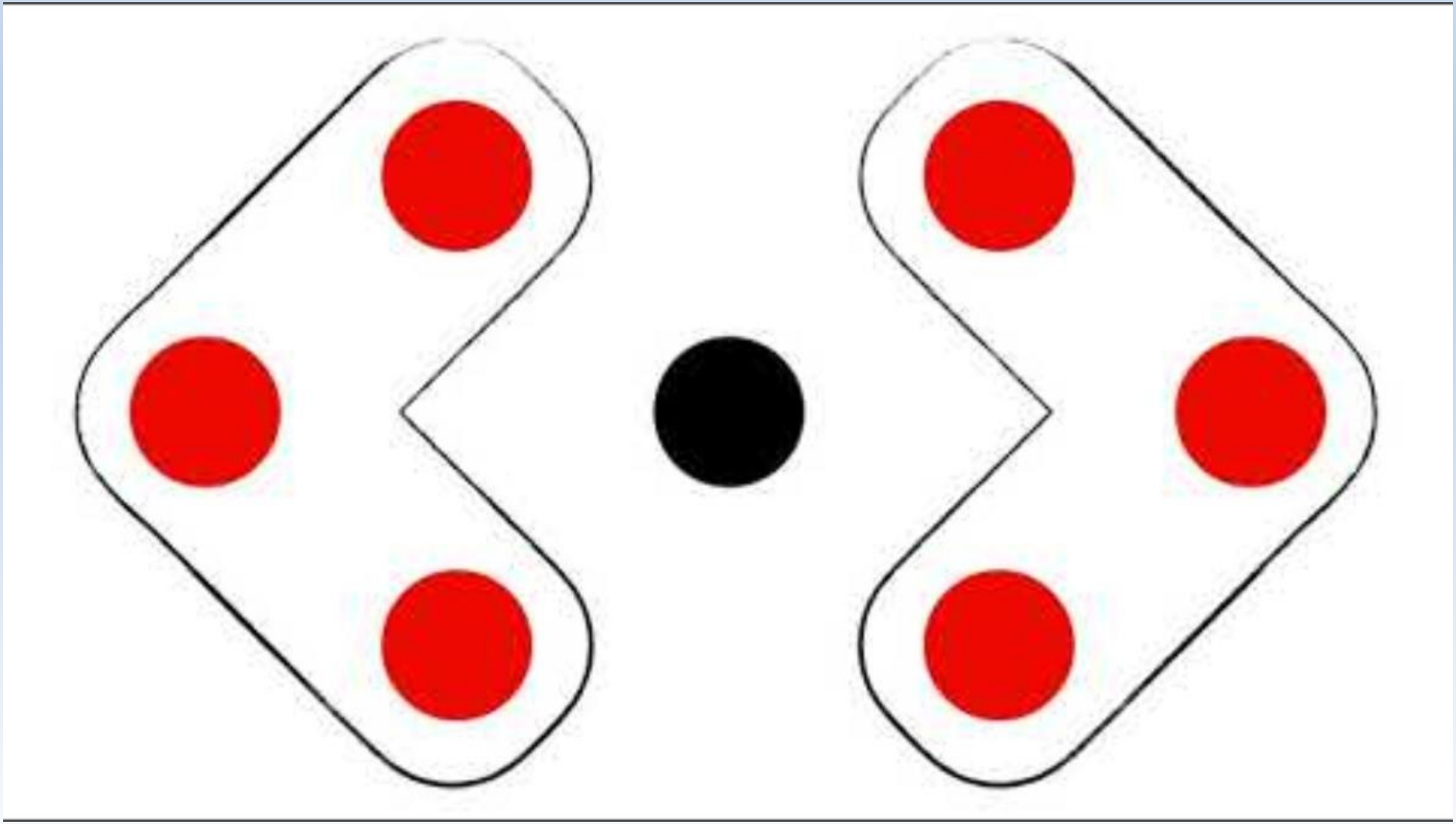
Why is this so important?



MathsHUBS

National Centre for Excellence in the Teaching of Mathematics

Subitising



Subitising

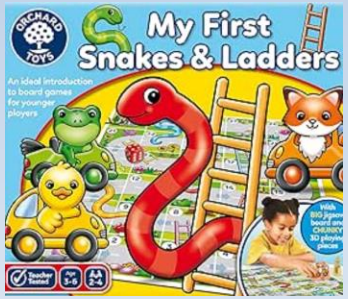
White Rose Maths

1. 1 to 5 (Dice)
2. 1 to 5 (Common)
3. 1 to 5 (Random)
4. 1 to 5 (Two colours)
5. Five frame
6. 1 to 5 (Objects)
7. Ten frame
8. 5 to 9 (Common)
9. 1 to 9 (Common)

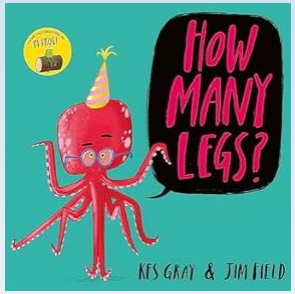
How to help at home

- Use everyday objects to count with.

- Play dice games.



- Read maths stories.



- Bring mathematical language into everyday life.

Visit the Maths page on our website for useful links

Useful information and links for parents/carers

numbots-parent-guide.pdf

TTRS parent guide.pdf

Times Table Rockstars
We recommend a "little and often" approach; 3 minutes practice a day, 4 or 5 times a week.

Numbots
Encourage your child to play little and often, aiming for 3 minutes, five times a week.

White Rose 1 minute maths
The White Rose 1-minute maths app helps children build greater number confidence and fluency. It's all about targeted practice in engaging, one-minute chunks!

Times Table Supermovers BBC
Times table videos for KS1 and KS2

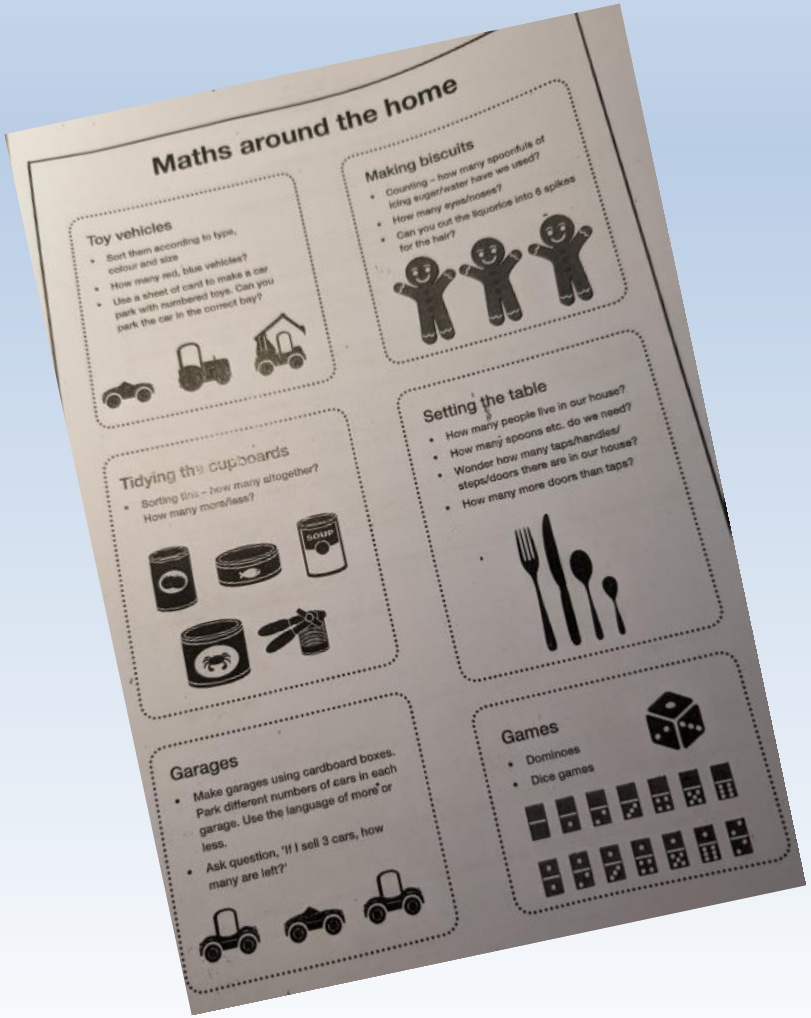
Timestables.co.uk MTC
Times Tables practice for Key Stage 2

Times table games and songs
Activities and songs for times tables 1-12

CBeebies
Maths activities and games for Early Years

NRich
Early Years activities - Number

EYFS number books
A recommended list of books that can be enjoyed in the Early Years to explore different aspects of number

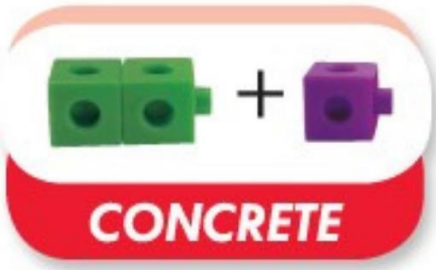


Maths in Years 1 - 4

- Number and place value
- Addition and subtraction
- Multiplication and division
- Fractions
- Measurement
- Geometry
- Statistics (Year 2 onwards)

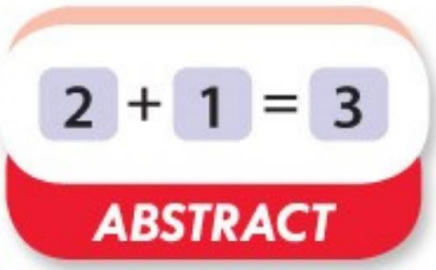
How we teach maths

Follow White Rose : FB4, input, questions, challenges

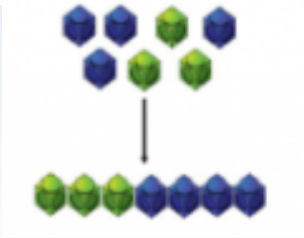


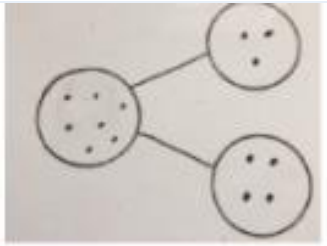
Concrete is the 'doing' stage, using concrete objects to solve problems. It brings concepts to life by allowing children to handle physical objects themselves.

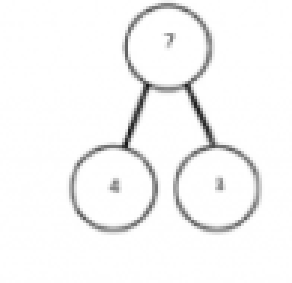
Pictoral is the 'seeing' stage, using representations of the objects involved in maths problems. This stage encourages children to make a mental connection between the physical object and abstract levels of understanding, by drawing or looking at pictures, circles, diagrams or models which represent the objects in the problem.

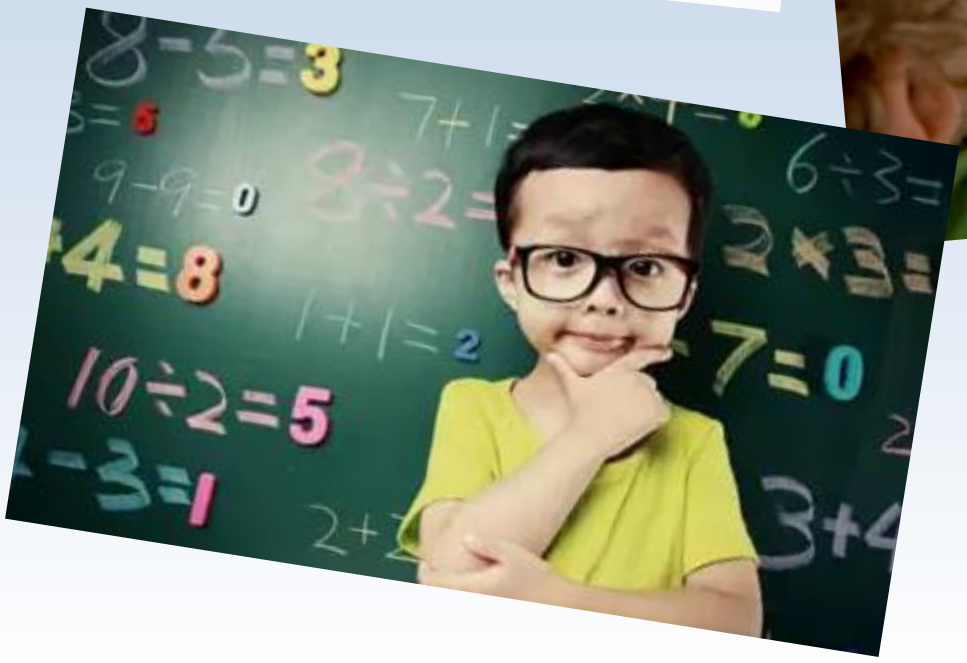


Abstract is the 'symbolic' stage where children are able to use abstract symbols to model and solve maths problems.








8-5=3
9-9=0
4=8
10÷2=5
-3=1
7=0

Numicon

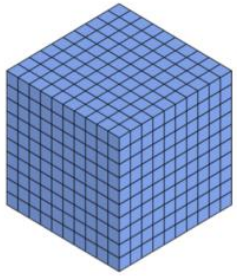
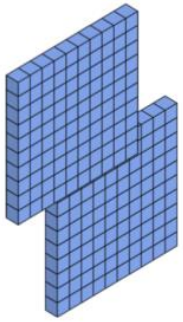
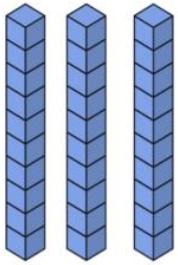
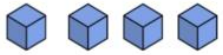
- Find the shapes and order them 1 – 10
- Recognising numbers – Show me? Prove it?
- What do you notice about the shapes?
- What happens when you add a 1 to the 2? The three? Etc. (show me!)
- Show me one more than 6? Prove it?

Number Lines

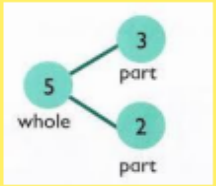
- Draw yourself a number line and mark it in 1s, numbers to 0 – 10.
- You are going to work out 3 + 5 =
- So you would circle the 5 as it's the largest number and then count on 3.
- This could be in 3 ones or as one jump of 3.
- The solution is the final number we jump on.

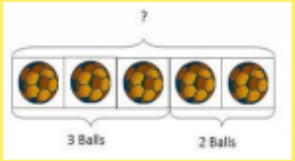
Base Ten

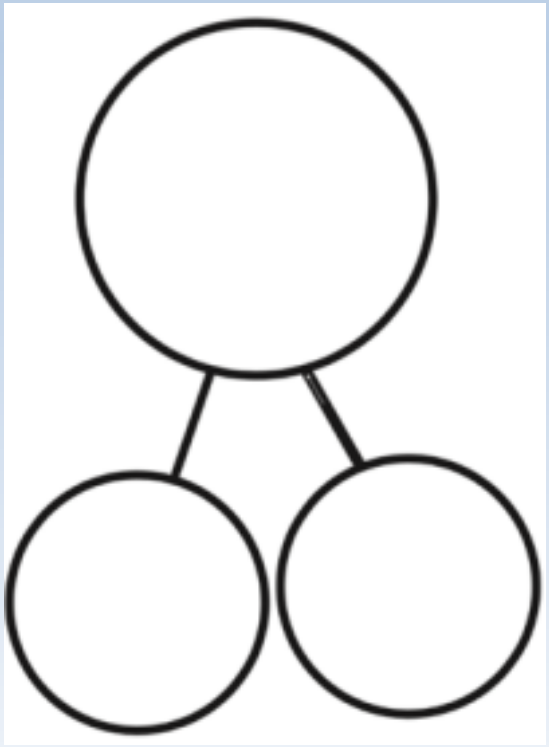
- Can you make me the number 15?
- Can you make me the number 56?
- Can you make me the number 129?

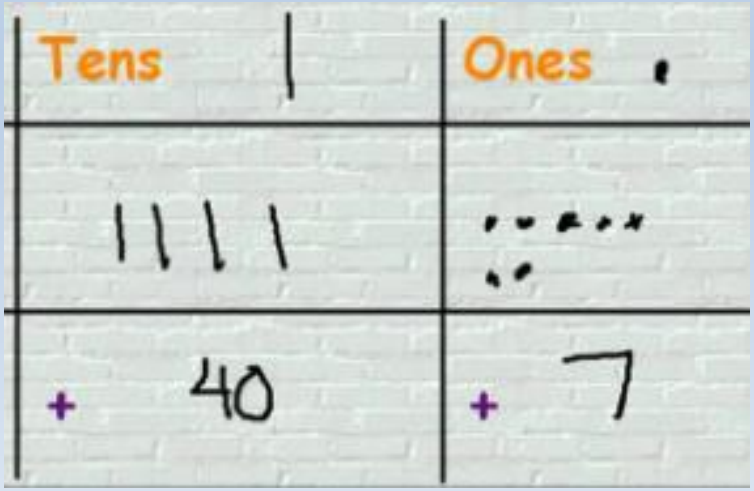
Thousands	Hundreds	Tens	Ones
			
1 thousands	2 hundreds	3 tens	4 ones

Pictorial - Use pictures to add two numbers together as a group or in a bar.





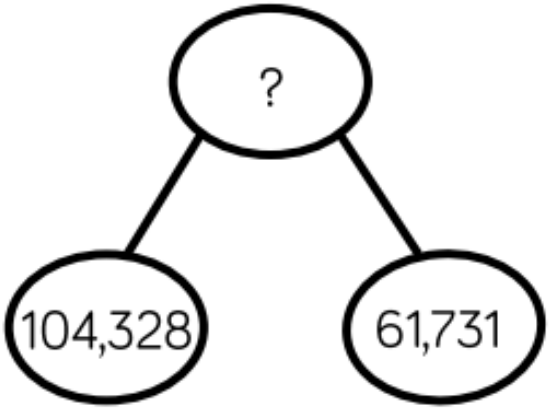


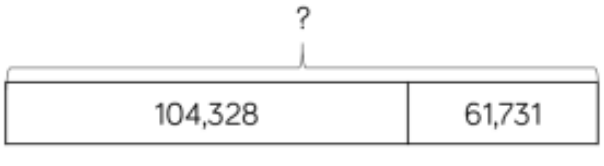


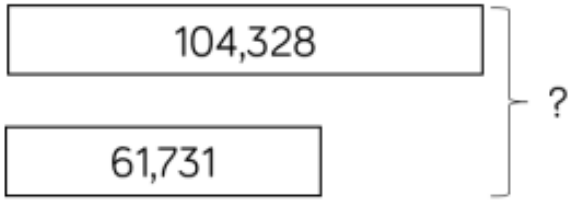
Addition

Skill: Add numbers with more than 4 digits

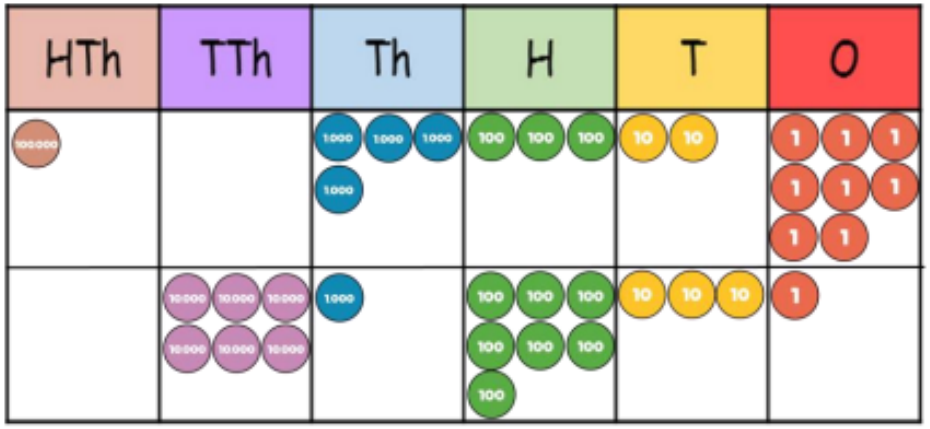
Year: 5/6







104,328 + 61,731 = 166,059



1	0	4	3	2	8
+	6	1	7	3	1
1	6	6	0	5	9
		1			

Place value counters or plain counters on a place value grid are the most effective concrete resources when adding numbers with more than 4 digits.

At this stage, children should be encouraged to work in the abstract, using the column method to add larger numbers efficiently.

How you can help at home

Times Tables

National Curriculum expectations

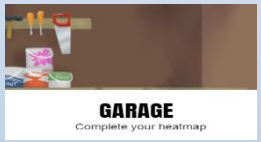
Year 1	Count in multiples of **2, 5 & 10**. Recall and use all **doubles to 10** and corresponding halves.
Year 2	Recall and use multiplication and division facts for the **2, 5 & 10** multiplication tables.
Year 3	Recall and use multiplication and division facts for the **3, 4 & 8** multiplication tables.
Year 4	Recall and use multiplication and division facts for multiplication tables up to **12 x 12**.
Year 5 and 6	Revision of all times tables and division facts up to 12 x 12.

Times Tables

What is the Multiplication Tables Check?

- June 2024 for Year 4 children
- The checks consist of 25 times tables questions. The questions will only be multiplication and they will go up to 12×12. There's nothing novel about the questions and they don't require problem solving so there's nothing to trip them up.
- There will be 6 seconds to answer each question.
- The check will be taken online during school time.
- There is no pass mark.
- Teachers will be able to apply for some children to be able to pause between questions.

How can you help with times tables?



- Make sure they play daily in **Garage mode** on Times Tables Rocks Stars - The Garage game mode will adjust the questions your child is asked, ensuring they are always working on the facts they need to improve. Also, give them a **times tables square** to use whilst they play. This way they can double-check facts they are not sure about.

- Sing times tables songs. There are hundreds available! Put them on in the car, bathtime or any 'free' time where you have a few spare minutes. Visit the **maths page** on our website for some links.

- Write out the tables – This can be in the form of a simple list or you could also be a bit more fun. Being creative will make writing and learning the tables more enjoyable.

  - Write the facts as the petals of a flower;
  - Get them to test you on the facts and get them wrong on purpose and see if they correct you!
  - Treasure Hunt: Hide the facts around the house and give them the answers. Can they find them in record time?
  - Take a pot of water and a paintbrush outside to 'paint' the facts on a wall.
  - Use chalks to write the facts outside in giant numbers.

- Chanting the old-fashioned way- rehearse the tables forwards and backwards, gradually increasing in speed.

- Plenty of praise and a positive attitude. This will heighten your child's enthusiasm for learning their times tables.