# Maths at Mitchell Brook

# Parent Workshop

- Introductions
- Teaching for Mastery
- Overview of the curriculum
- Interactive session
- Maths at home
- Q&A

# Introductions

*The Maths Team*

Vince Buffini

Assistant Headteacher

Primary Maths Specialist

Hind Mrimou

Primary Maths Specialist

Ava Murad

Reception Lead

Oak Class Teacher

Hibaq Omar

Year 5 Juniper Class Teacher

*Monitor the teaching of Maths*

*Model high quality teaching*

*Support staff with planning*

*Lead on aspects of Maths*

*Train and develop all classroom staff*

# Teaching for Mastery

- Teach less but teach it better
- Teach slower
- Build deep understanding and firm foundation – depth is simplicity, not complexity
- Whole class teaching – to maximise teacher input

# Teaching for Mastery

Children will:

- have a **secure** and **deep** understanding of mathematics
- use mathematical vocabulary
- **reason** and **explain** their mathematical thinking
- problem solve by applying **skills** and making **connections**
- become **fluent** in calculations to support their understanding.

# How do we teach Maths?

*Curriculum overviews*

## Mathematics

Home >> Key Information >> Curriculum >> Subject Information >> Mathematics

**Intent**

Pupils receive a high-quality mathematical education which equips them with tools that they can use in everyday life to help them understand the world. We aim to build a culture of curiosity and enjoyment around the subject, as children are challenged to become more fluent and confident in mathematics through a Teaching for Mastery approach.

**Implementation: Teaching for Mastery (TfM)**

The National Centre of Excellence for Teaching Mathematics (NCETM) breaks down the TfM approach into Five Big Ideas: coherence, representation and structure, fluency, mathematical thinking and variation. Teachers plan for children to experience these ideas in lessons through teacher-student and student-student interactions to develop a deep mathematical understanding.

At Mitchell Brook, teachers advance children's mathematical understanding through systematic direct teaching of appropriate learning objectives where children aim to master mathematical skills, knowledge and a quick recall of basic facts. Children are taught to be confident using a range of efficient mental and written calculation strategies for all four operations. They are encouraged to use Maths as an effective tool in a wide range of problem solving activities within school. We work to grow positive attitudes towards Maths in which all children can be successful, as they develop an ability to express themselves fluently using correct mathematical language and vocabulary.

EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6

| | Key area focus | | | | | |
|---|---|---|---|---|---|---|
| Autumn 1 | Numbers to 5 | More / less than | | AB patterns | Develop spatial awareness | Recognising attributes |
| Autumn 2 | Numbers to 10 | Equal groups | | ABC patterns | Represent spa-tial awareness | Comparing amounts |
| Spring 1 | Numbers to 20 | Comparing numbers | Numbers 6, 7 & 8 | Continuing patterns | Shape construction | Comparison through estimation |
| Spring 2 | Conservation (number of objects do not changed when rearranged) | Comparing numbers | Partitioning numbers 6-10 | ABB patterns Spotting errors | Identifying simi-larities of shapes | Relationship between size and number of units |
| Summer 1 | Number sequences | One more / one less | Partitioning numbers in multiple ways | Generalising structures to other contexts | Properties of shape | Use units to compare |
| Summer 2 | Counting be-yond 20 | Relationship between count-ing numbers | Doubling and halving | Spotting patterns around us | Relationships between shapes | Use time to sequence events |

| Six key areas of Early mathematics learning | |
|---|---|
| | Measures |
| | Shape and Space |
| | Pattern |
| | Composition |
| | Comparison |
| | Cardinality and Counting |

NCETM - Six Key Areas of Early Mathematics

**EYFS**

Curriculum map

# How do we teach Maths?

- Nursery - 3 short Maths inputs per week
- Reception - 3 Maths inputs per week
- Reception - 4 Mastering Number sessions per week
- Teachers use a range of strategies, representations and resources
- Children are encouraged to explore and discover

# Mastering Number

Over 8,000 primary schools involved

Organisations should offer Mastering Number to all schools as an example of good practice in early mathematics.

(OFSTED, 2023)

It's had a positive impact on all pupils, and especially those who were previously less confident in maths.

Assistant Headteacher

They are developing their fluency and confidence with number facts. Lesson structure of Mastering Number has improved their engagement over the years.

Priya Kononov

The use of mathematical language is so impressive. Parents are amazed!

Lead Mastering Number teacher

Children will:

- develop and demonstrate good number sense
- leave Key Stage 1 with fluency in calculation and a confidence with number.
- develop their vocabulary to aid their reasoning skills

# How do we teach Maths?

Teacher questioning and modelling

Independent task

Group discussion

Partner talk

Generalisations

Mixed ability grouping

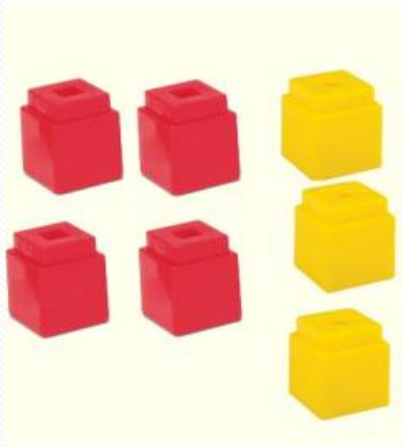
# How do we teach Maths?

*Concrete*  *Pictorial*  *Abstract*

If children play with mathematical objects purposefully before learning new concepts or problem solving, they are more successful and creative.

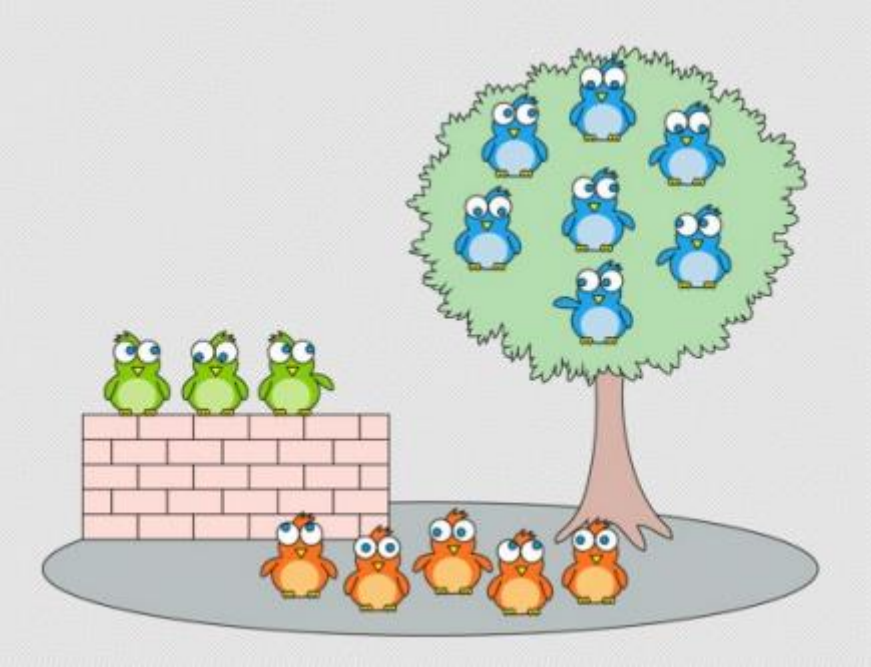
# How do we teach Maths?

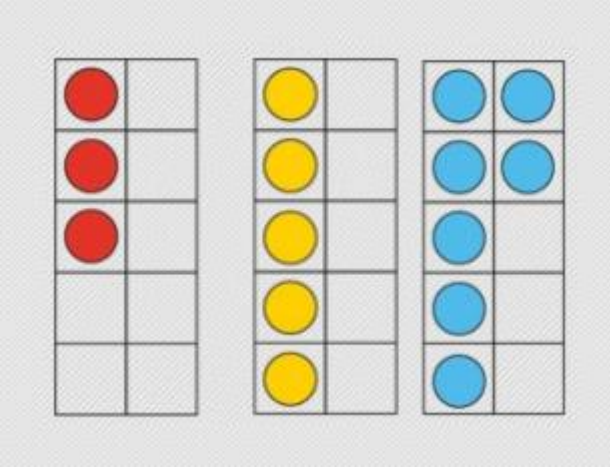
*Concrete*



# How do we teach Maths?

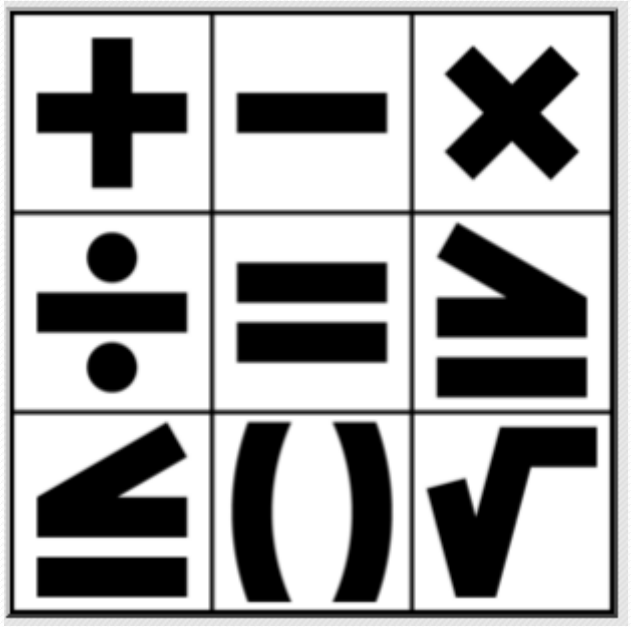
*Pictorial*





# How do we teach Maths?

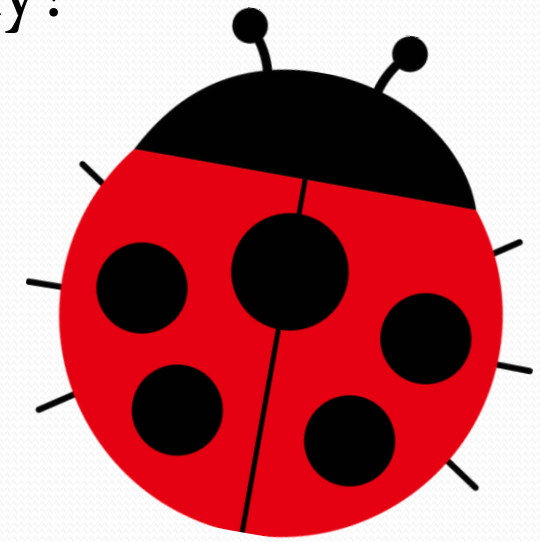
*Abstract*

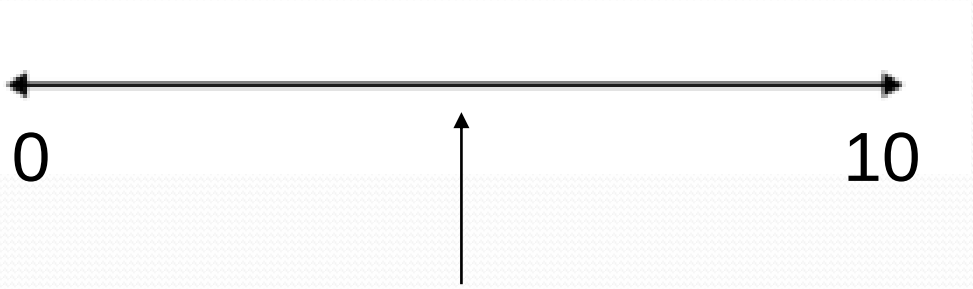



3 + 5 + 7

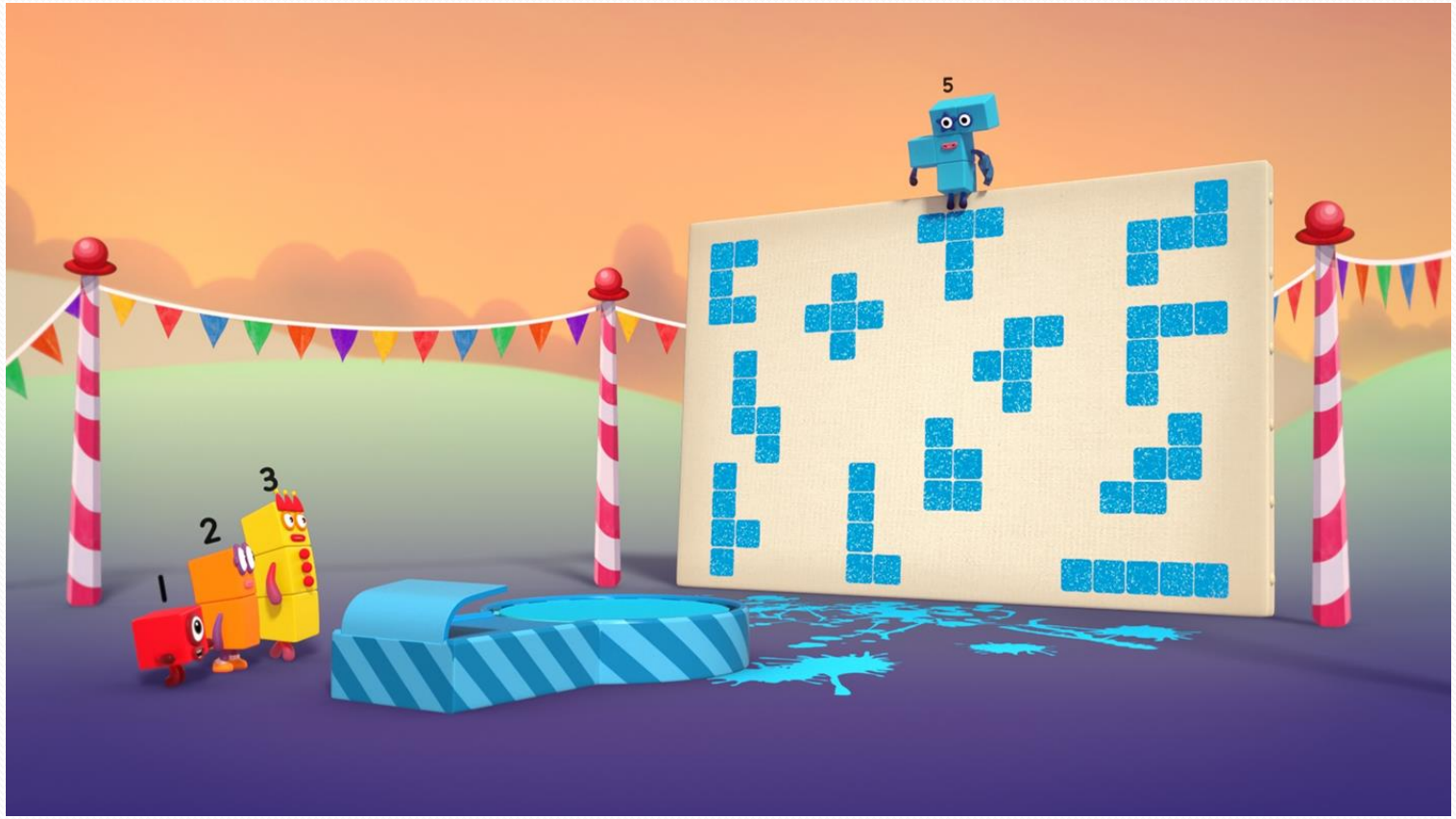
# Interactive session

What number are we learning about today?





# 5

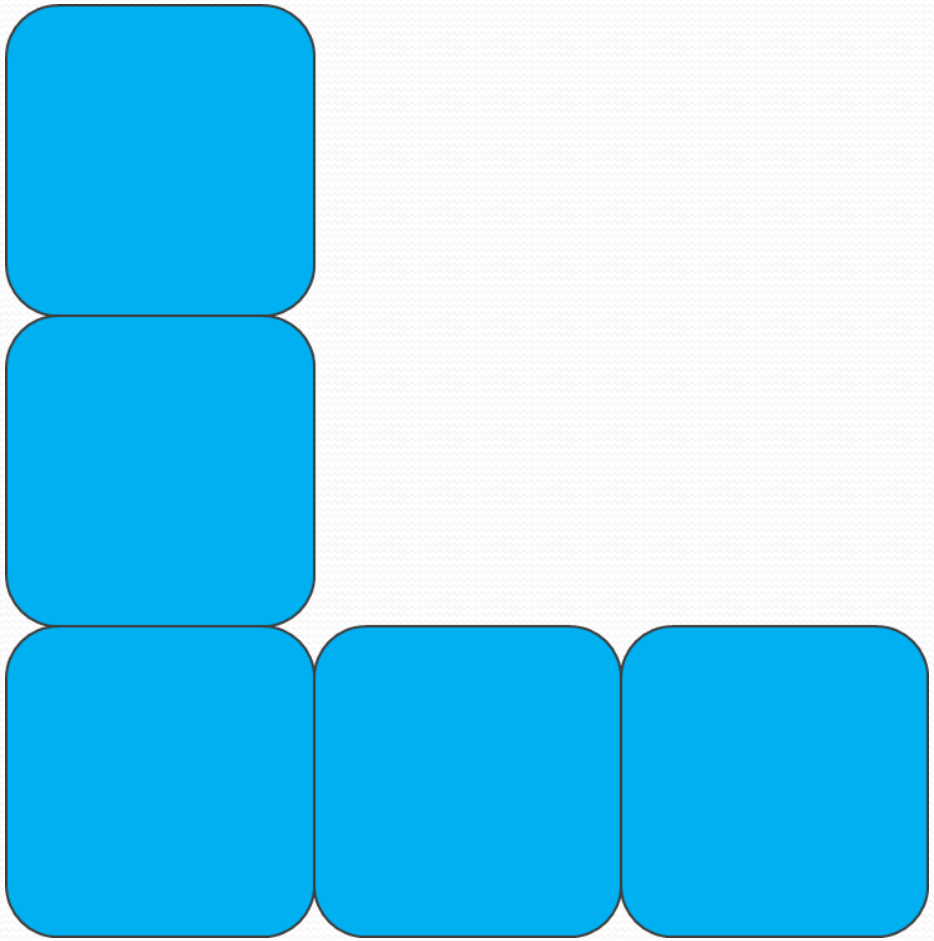


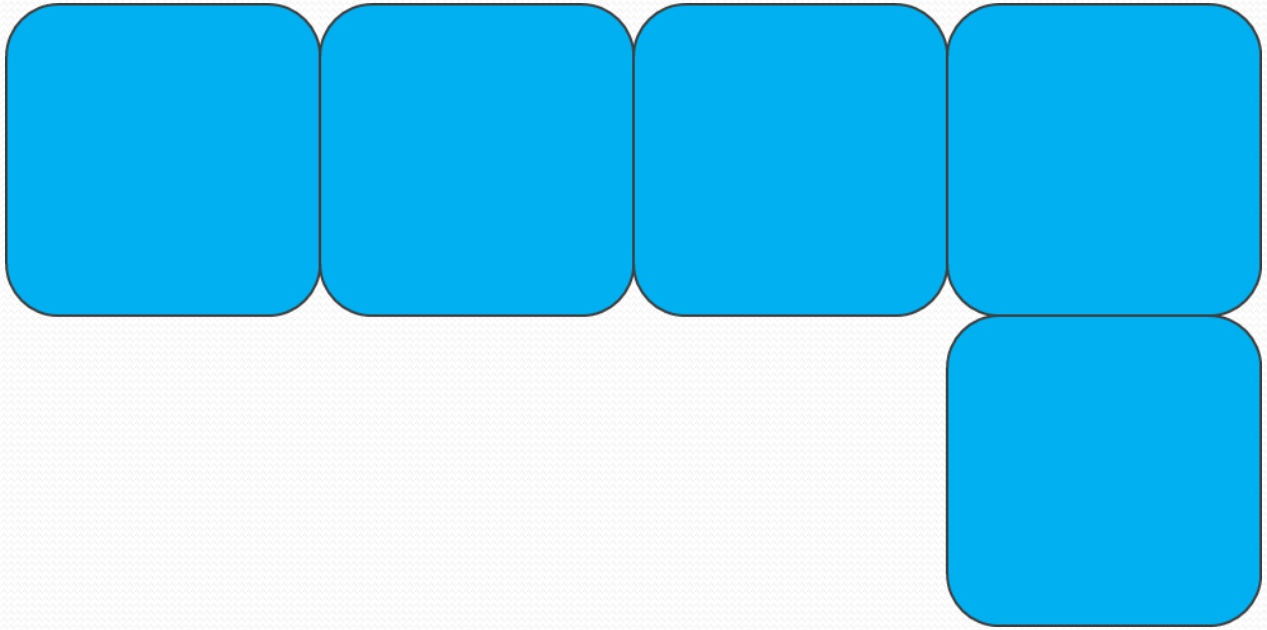

How many different ways can you show 5?

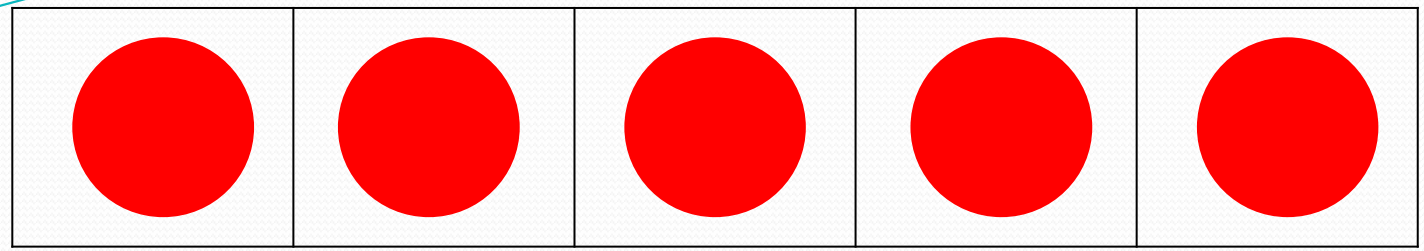
How can we use numbers to describe this Stampoline pattern?

**Stem sentence: I see ___ on the top and ____ on the bottom.**

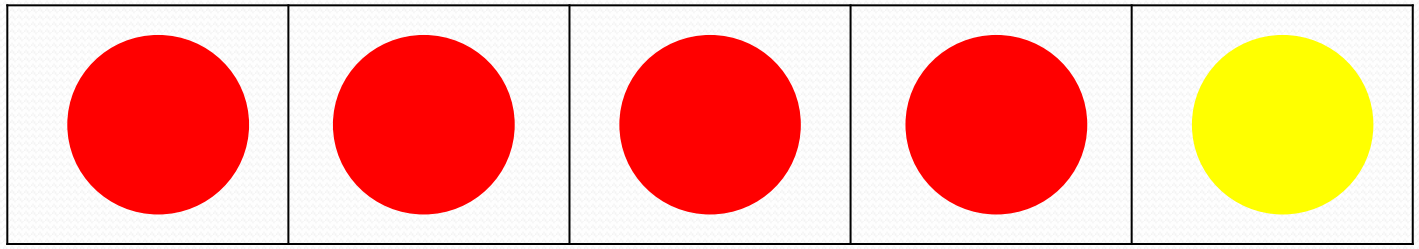
I see ___ on the top and ____ on the bottom.



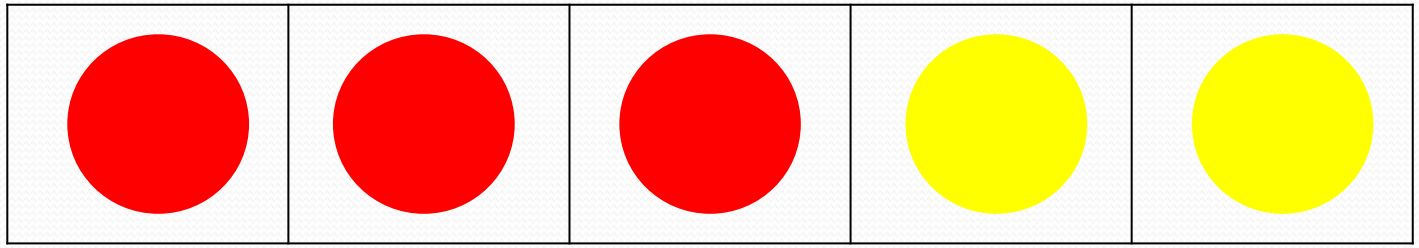




**____ and ____ makes 5 altogether.**



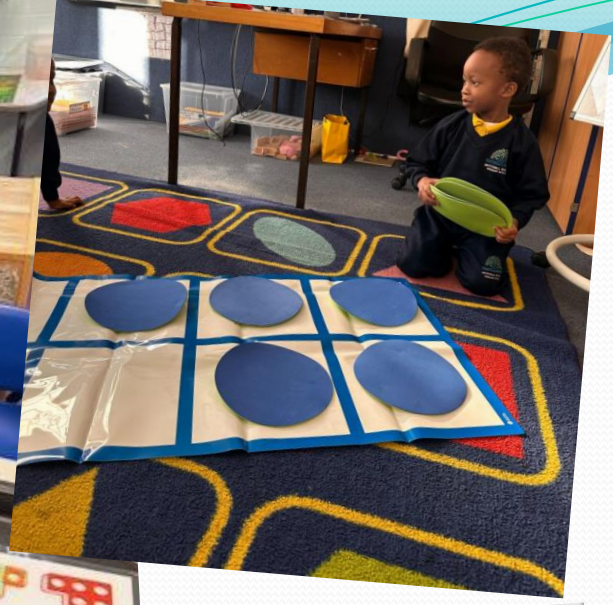
**____ and ____ makes 5 altogether.**

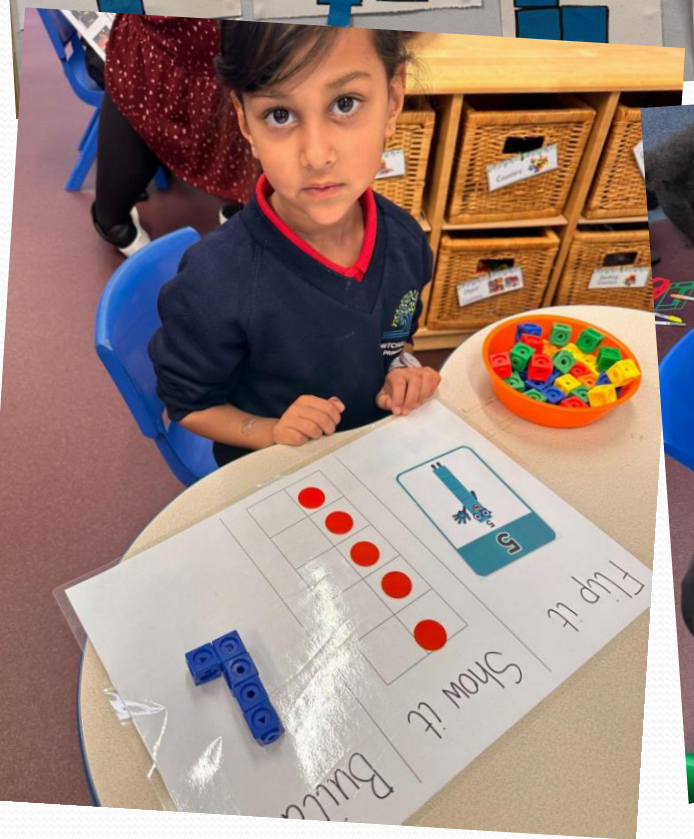


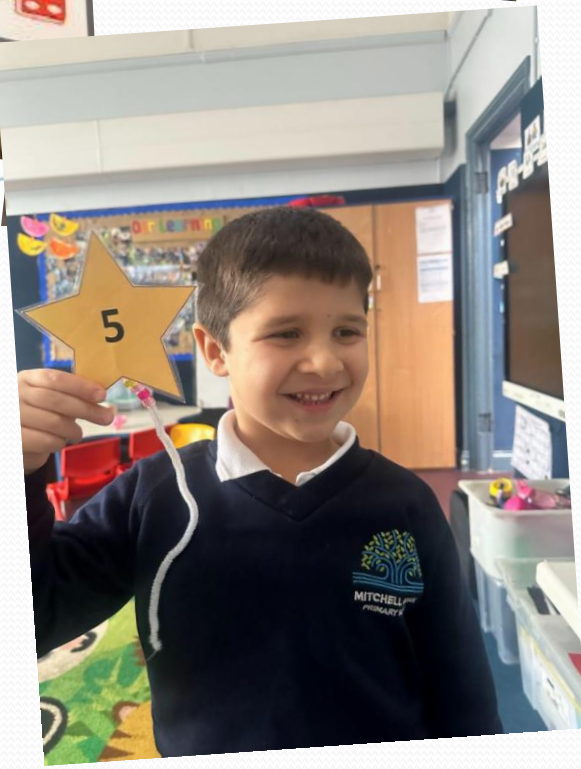
**____ and ____ makes 5 altogether.**

____ is a **part** and ____ is a **part**. My **whole** is ____ .

Our representations
of 5




Flip it
Show it


5

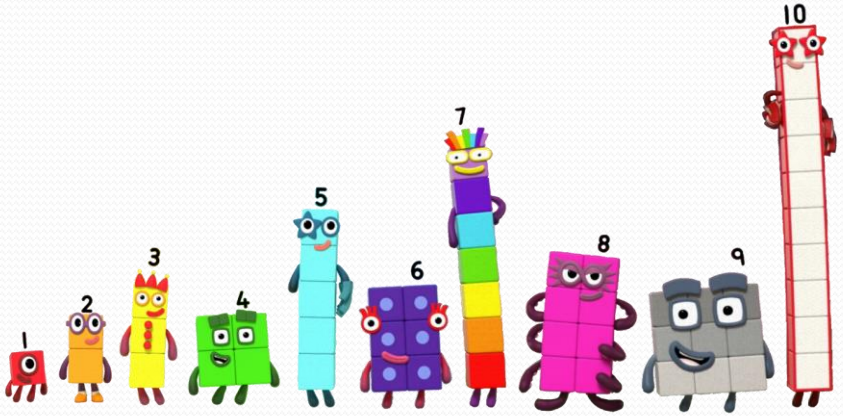
# How can you help at home?

NUMBOTS

This platform equips each pupil with the set of core maths skills they require:

Subitising;
Number bonds;
Addition & Subtraction.

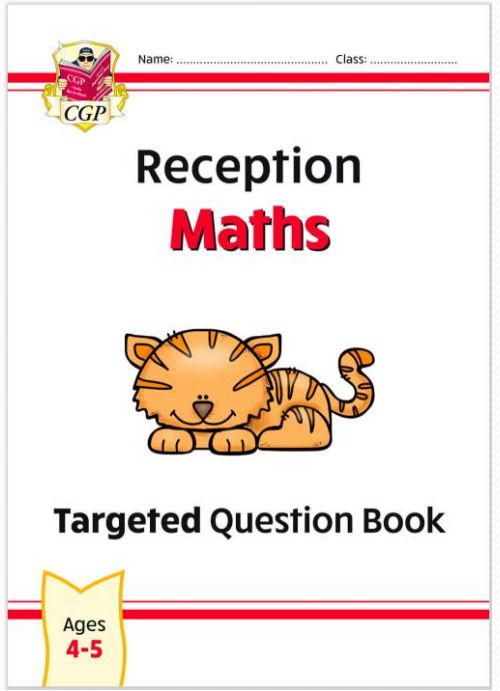
To be practiced **daily** with additional optional challenges.




*NumberBlocks*

BBC iPlayer

YouTube

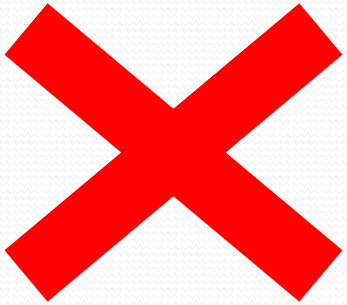



Whole School

To practice what has already been taught

# How can you help at home?

- Support them through practicing aspects that must be memorised eg. Numbots / Numberblocks, counting
- Use online platforms to develop number facts
- Encourage children to use mathematical vocabulary when explaining ideas to you
- Find ‘the Maths’ in everyday activities and make connections



- Teach your child new methods or concepts
- Challenge children by teaching them skills needed for older year groups
- Be negative about your experience of Maths

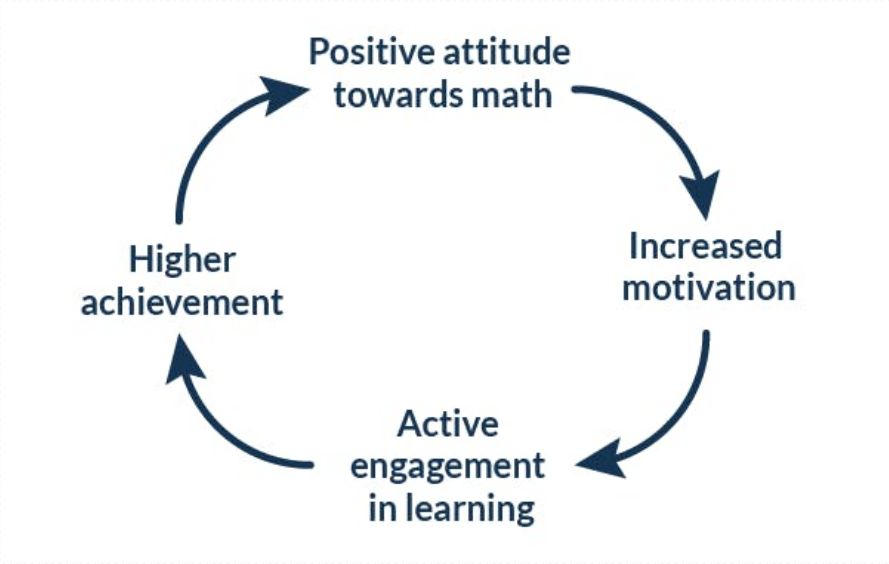
# How can you help at home?

You may find yourself from time to time saying '*I was never good at Maths*.' Children will pick up and mirror this energy.

'**It's fine to make mistakes, we all do**'

'**It's ok that you find this tricky, let's look through it together**.'

Positivity can go a long way to improving their attitude towards Maths!



# Questions & Answers

# Look out for…

Future parent workshops:

KS 1 (Y1 & 2) - 23rd January

LKS2 (Y3 & 4) - 27th February

UKS2 (Y5 & 6) - 13th March

Your feedback is important to us!