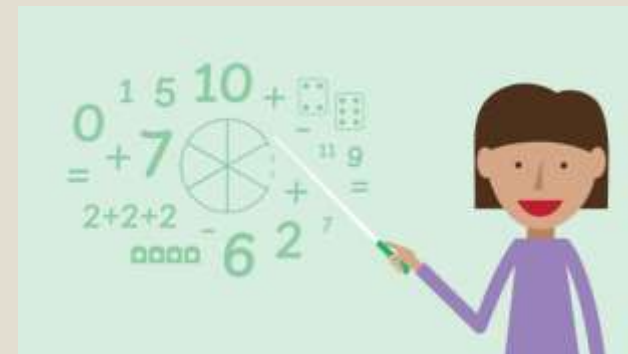


# MATHEMATICS- EYFS



# Teaching for Mastery



Teaching maths for mastery is a transformational approach to maths teaching which stems from high performing Asian nations such as Singapore. When taught to master maths, children develop their mathematical fluency without resorting to rote learning and are able to solve non-routine maths problems without having to memorise procedures.

# Early Years Framework

## **ELG: Number**

- Have a deep understanding of numbers to 10
- Subitise numbers up to 5
- Automatically recall number bonds to 5

## **ELG: Numerical Patterns**

- Verbally count beyond 20,
- Compare quantities up to 10
- Can recall one more/ one less of a number to 10
- Explore patterns within numbers up to 10, including odd and even, double facts

# Counting

The cardinal value of a number refers to the quantity of things it represents, e.g. the numerosity, **'howmanyness'**, or **'threeness'** of **three**.

1. Saying number words in a sequence (to 10 by the end of the year)
2. One to one correspondence (tagging an object with a number)
3. Knowing the last number is the total
4. **Subitising** (recognising the total amount without counting (within 5))
5. Numeral meanings
6. Conservation (knowing that the total doesn't change even if things are moved around.)



# Comparison

Comparing numbers involves knowing which numbers are worth more or less than each other. This depends both on understanding values of numbers and also knowing that the later counting numbers are worth more (because the next number is always one more).

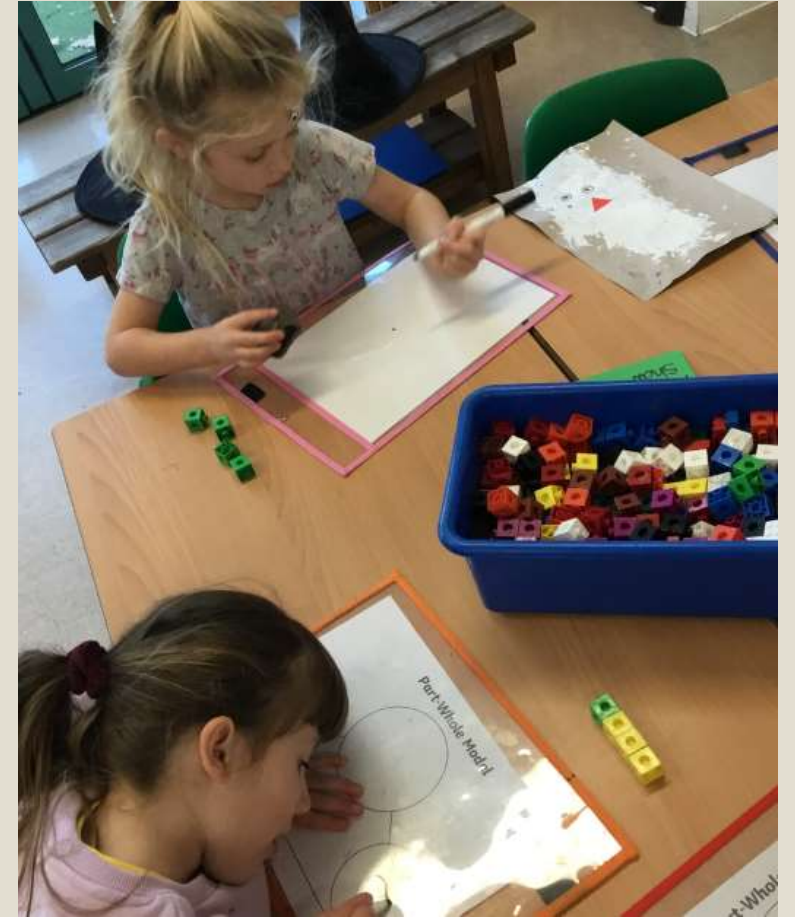
1. Compare objects using more than/ less than
2. Compare numbers using more than/ less than
3. Recognising one more / one less of a number

# Composition

Knowing numbers are made up of two or more other smaller numbers involves 'part-whole' understanding.

Learning to 'see' a whole number and its parts at the same time is a key development in children's number understanding.

Partitioning numbers into other numbers and putting them back together again underpins understanding of addition and subtraction.



# Mastering Number

Supporting pupils in Reception, Year 1 and Year 2 to develop good number sense.

This project aims to secure firm foundations in the development of good number sense for all children from Reception through to Year 1 and Year 2. The aim over time is that children will leave KS1 with fluency in calculation and a confidence and flexibility with number.

Meets to all the Early Learning Goals of Number.



# Maths Meetings

Maths Meetings occur daily and are used to recap previously taught knowledge.

In Reception this is also when we teach **Shape, Space and Measure**.

Although it is not in the Early Years Framework, it is still really important for our children's development.

It allows them to develop visualisation skills, how to combine, rotate and to spot patterns etc.

It also promotes language development within our children.





# Language development

A key focus for our children is language development.

We do this by:

Introducing children to new words and meanings

Modelling the use of new words in our Teacher talk

Promote new language and full sentence responses from the children (STEM Sentences)



# Continuous Provision

Opportunities to learn through play are vital for young children's development.

Each class has designated Maths activities out for the children to explore, but Maths is also incorporated into other areas of provision- Role Play, outdoors, small world etc.



## Comparing Numbers to 5

### Sand

Make towers of pebbles.  
Who can make the tallest tower?  
How many pebbles are in each tower?  
Does your tower have more or less pebbles than your friend's tower?  
Can you each make a tower using the same number of pebbles?



Enhancements to areas of learning

### Carpet

Provide a set of dot plates with different arrangements of 0-5 dots.  
Can you find a plate with 4 dots?  
With more/fewer than 4 dots?  
Can you put the plates in order?  
One of the plates is missing.  
Can you work out which one?



### Maths Area

Children use the number shapes, linking cubes and numeral cards to match and compare quantities.  
Provide a set of dominoes to explore. Ask the children to compare the number of spots on each side of the domino. Are there the same, more or fewer dots?



### Small World

Provide children with the numbers 1 - 5 on cards and various small, similar items such as people, toy cars, plastic animals, etc.  
Ask them to show you fewer, the same or more than the number they choose.



# Assessment- ELG

- Progression grids based on age range linked to Number and Numerical patterns
- Observational checkpoints- birth to 5 years
- Not an assessment framework- more like markers
- Teacher judgement – best fit

# Helping at home

## KIRFS

Key Instant Recall Facts- facts that children should know automatically

Sent out every half time

Short bursts – no longer than 5 minutes

On the way to school, whilst getting dressed etc.

Make it fit into your day to day.



## Key Instant Recall Facts

Reception - Autumn 2



We believe that the rapid recall of key facts underpins the success and progress of all in maths. Children will be introduced to their key facts in class and will be regularly practised in school. Children will also be expected to practise these key facts at home. By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

Your key fact for this half term is:

To have fast recognition of up to 5 objects, without having to count them individually (subitising)

### Key Facts



### Key Vocabulary

How many?  
Altogether?  
Subitise

They should be able to recognise how many objects there are without having to count them

Challenge: to recognise up to 10 objects without having to count them

### Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

**Use what you already know** – start by building their confidence by counting as far as they can without making a mistake. Repeat this a few times. Then count a little further together.

**Look for patterns** – Use a five or ten frame to place objects in. Know that when a five frame is full there are five objects and when a ten frame is full there is ten.

**Make it fun** – play games which involve quickly revealing and hiding numbers of objects.

### Make it Link – Online resources

<https://www.topmarks.co.uk/learning-to-count/ladybird-spots>



**ANY QUESTIONS?**

**Bring in the children!**

