

# Maths at Saint Alban and Saint Stephen Catholic Primary School & Nursery

Meeting for KS2 Parents  
26<sup>th</sup> April 2024



*Our aim at Saint Alban and Saint Stephen Catholic Primary School and Nursery is that children will learn to be confident in exploring and using a wide range of maths skills that they can build on in their future learning and use in their adult lives.*

*The purpose of Maths is the pursuit for truth, and the thinking skills developed through the Maths Curriculum should inspire learners to be innovative, creative, critical and analytical learners. Enjoying the beauty of Maths enables learners to engage with the transcendent dimensions of life. It will inspire them to become the pioneers and inventors of today and the future.*

# How children learn maths.

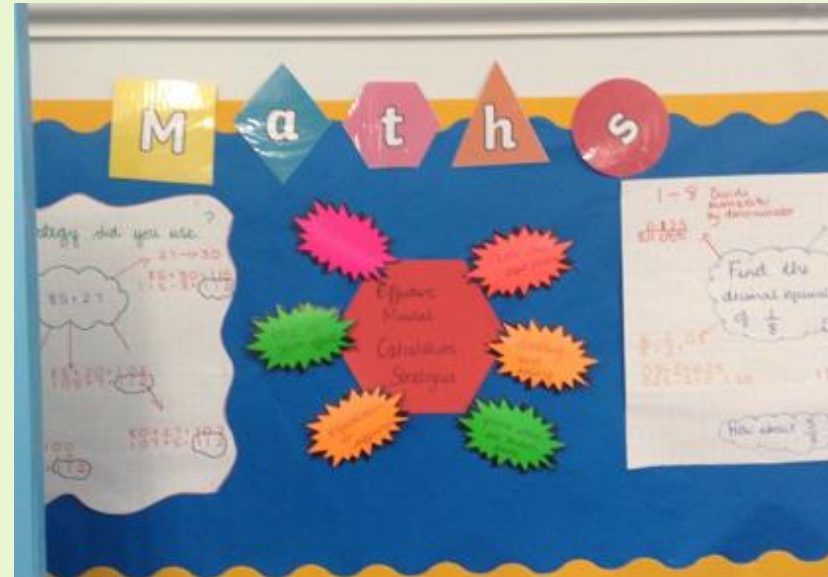
- ▶ Using practical mathematical resources
- ▶ Exploring and investigating
- ▶ Using Talk for Learning
- ▶ Representing learning using pictures and then more abstract methods



# Herts for Learning Essential Maths Scheme

- ▶ Across both sites to ensure consistency and progression.
- ▶ Uses sequences of lessons for each year group.
- ▶ High emphasis on using mathematical equipment for practical learning.
- ▶ Problem solving skills embedded throughout.
- ▶ Children learn to record using pictorial representations and more abstract recording e.g. number sentences.
- ▶ Talk for learning also important - speaking frames support children's use of mathematical language.

# Key Stage 2 Working Walls



# Speaking frames

## Speaking Frame - Comparing and Ordering

\_\_\_\_\_ is **greater than/smaller than** \_\_\_\_\_ because there are  
an **equal/greater/smaller** number of thousands.  
an **equal/greater/smaller** number of hundreds.  
an **equal/greater/smaller** number of hundreds and  
an **equal/greater/smaller** number of ones.

# KS2 Purple Pen and Go APE

- ▶ Marking our work
- ▶ Go APE (Answer, Prove, Explain)

Complete the missing information in the table. The first shaded example is completed for you.

Equivalent statements	Pictorial
$\frac{3}{5} = \frac{6}{10}$	
$\frac{3}{8} = \frac{3}{4}$	
$\frac{12}{12} = \frac{12}{12}$	
$\frac{1}{3} = \frac{8}{12}$	
$\frac{1}{12} = \frac{1}{4}$	

Explain how you can multiply and divide the numerators and denominators to find fractions equivalent to  $\frac{1}{2}$ .

Find a fraction equivalent to  $\frac{1}{2}$  in which the sum of the numerator and denominator is 25.

Go Ape  
To remember to have equal bar models when doing equivalent problems.

GO-APE  
When buying a chocolate used under a table, always include the first two numbers.

At a school fair, they use  $\frac{1}{2}$  litres of squash in the morning and another  $\frac{1}{4}$  litre in the afternoon. How many litres of squash were used at the fair altogether?

At the cinema, Jack buys  $\frac{1}{2}$  kg of popcorn before a film. Then he has  $\frac{1}{4}$  kg left. How much popcorn did he have to start with?

Baker A uses  $\frac{1}{4}$  bags of flour to make doughnuts. Baker B uses  $\frac{1}{8}$  more bags of flour to make the doughnuts than Baker A. How many bags of flour does Baker B use?

GO-APE  
Answers to add fractions, remember to require the addition to make a whole number before walking out the remaining fractions.

$\frac{1}{2} + \frac{1}{4} = 1 - \frac{1}{4} = \frac{3}{4}$

To subtract fractions with regrouping

a)  $1\frac{2}{7} - \frac{6}{7}$   
 $1 - \frac{4}{7} = \frac{3}{7}$   
1 - and the 4/7

# Key Stage 2

- ▶ More formal methods of recording, such as column method for addition and subtraction.
- ▶ Place value - Millions, hundred thousands, ten thousands, thousands, hundreds, tens and ones.
- ▶ Develop fluent recall of times tables.
- ▶ Fractions, decimals and percentages - including calculations.
- ▶ Multiplication and division of 2 digit numbers.

$$\begin{array}{r} 56 \\ + 67 \\ \hline 3 \\ \hline 1 \end{array} \qquad \begin{array}{r} 56 \\ + 67 \\ \hline 123 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 6 \cancel{7} 12 \\ 56 - \\ \hline 16 \end{array}$$

Arrays and Multiplying 2-Digit Numbers  
How can you multiply using an array?  
There are 13 trees in 24 equal rows.  
How many trees are there?

10 x 20  
3 x 20  
4 x 10  
3 x 4

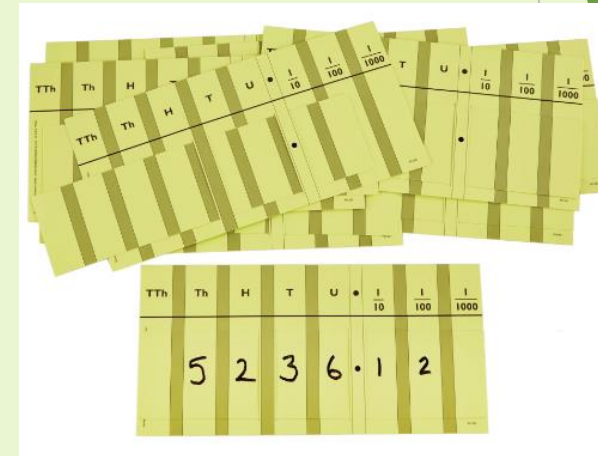




# Place Value

- Year 3 - hundreds, begin decimals
- Year 4 - thousands
- Year 5 - ten thousands and hundred thousands
- Year 6 - hundred thousands and millions

Place value sliders



Base Ten



Counting stick



# Addition and Subtraction

- **Mental strategies**  
e.g. Think 10, Think 100, regrouping, rebalancing
- **Formal written strategies.**

## Think 10

$$\begin{aligned} \text{e.g. } & 68 + 8 \\ & = 70 + 6 \end{aligned}$$

## Rebalancing for addition

$$\begin{aligned} \text{e.g. } & 48 + 27 \\ & = 50 + 25 \end{aligned}$$

## Think 100

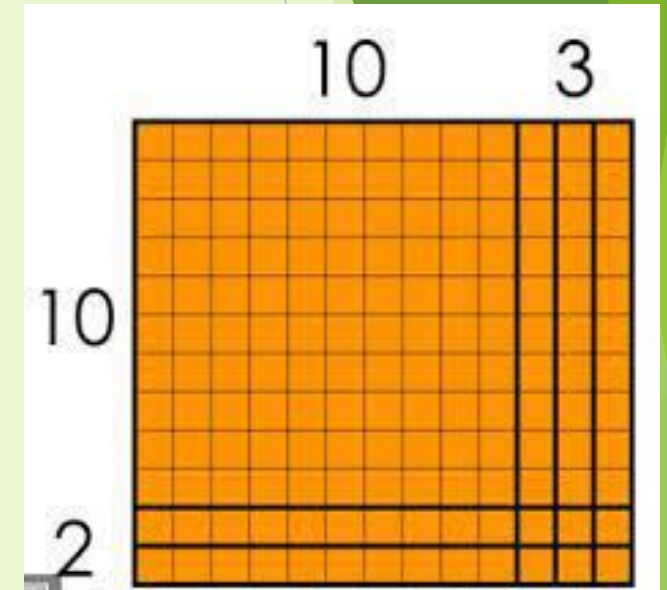
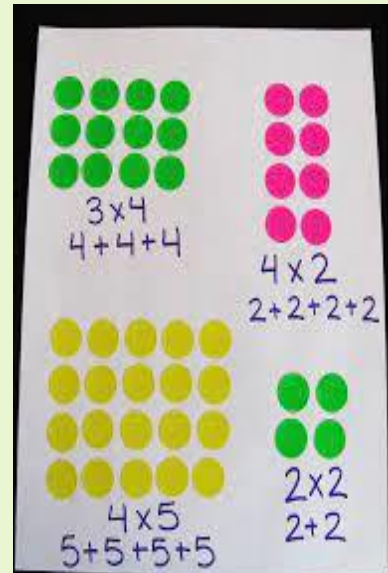
$$\begin{aligned} \text{e.g. } & 430 + 75 \\ & = 500 + 5 \end{aligned}$$

## Rebalancing for subtraction (equal difference)

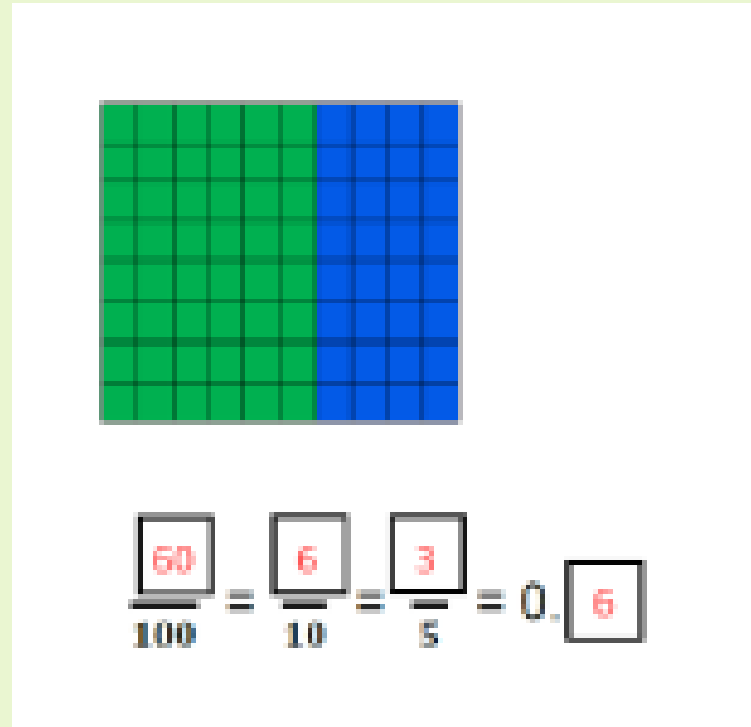
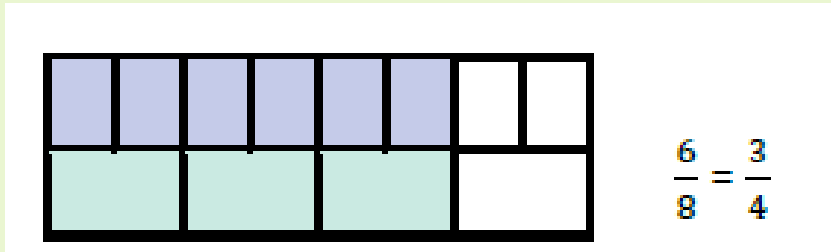
$$\begin{aligned} \text{e.g. } & 69 - 15 \\ & = 70 - 16 \end{aligned}$$

# Multiplication and Division

- At the end of Year 4 children should have quick mental recall of **all** times tables up to 12x
- Throughout KS2 they will develop strategies for multiplying 2 digit numbers
- They will also learn to do long multiplication and long division.



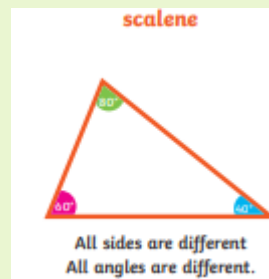
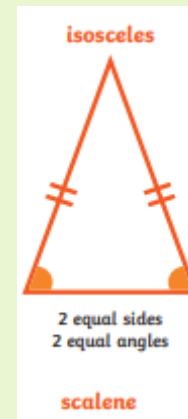
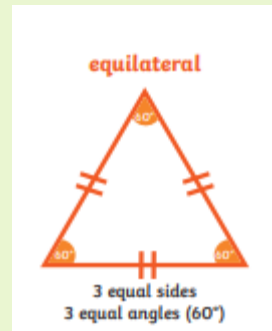
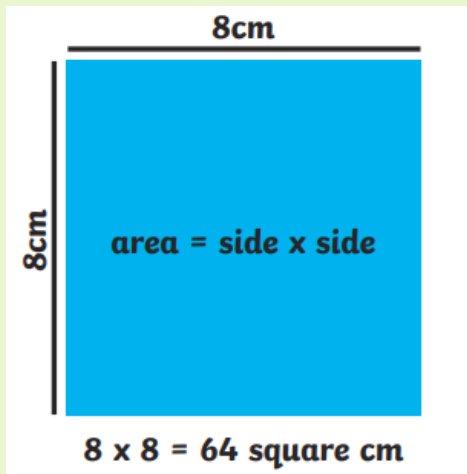
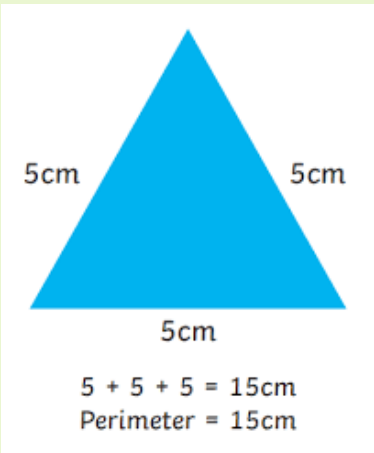
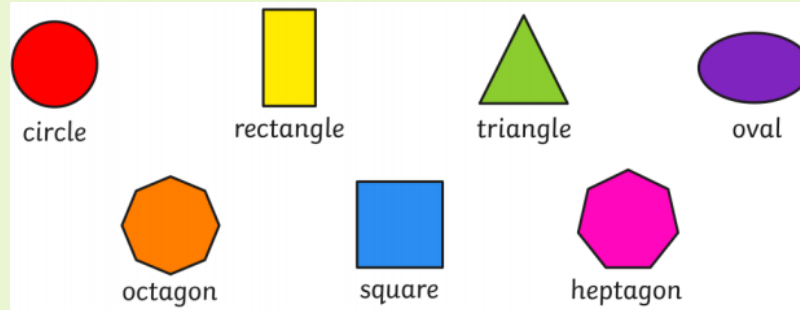
# Fractions, percentages and decimals



Percent	Decimal
006.%	0.06
078.%	0.78
135.%	1.35
012.5%	0.125

# Shape

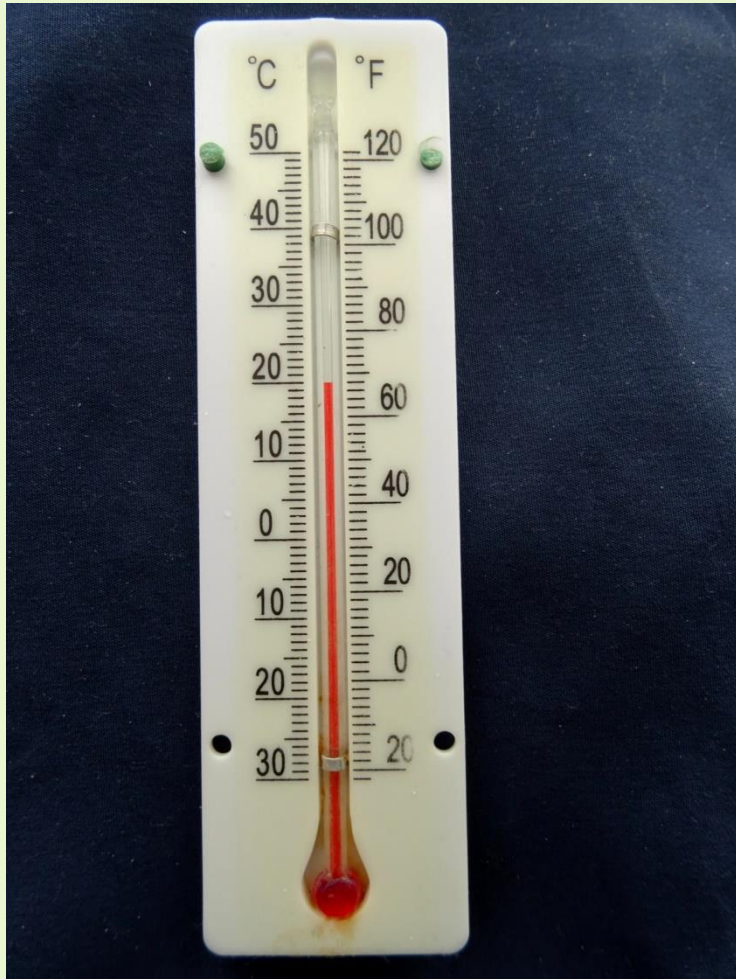
- Names and properties of 2D and 3D shapes.
- Perimeter
- Area
- Angles



6 equal faces 8 vertices 12 edges	Cube	
6 faces 8 vertices 12 edges	Cuboid	
1 face 0 vertices 0 edges	Sphere	
3 faces- 2 flat, 1 curved 0 vertices 2 edges	Cylinder	
2 faces- 1 flat, 1 curved 1 vertex 1 edge	Cone	
5 faces 5 vertices 8 edges	Square based pyramid	
5 faces 6 vertices 9 edges	Triangular prism	
4 faces 4 vertices 6 edges	Tetrahedron	

# Measures

temperature



weighing

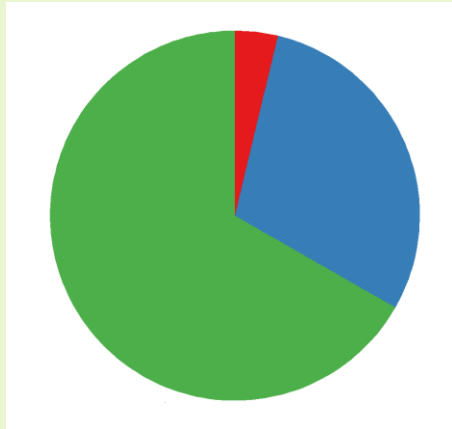


capacity

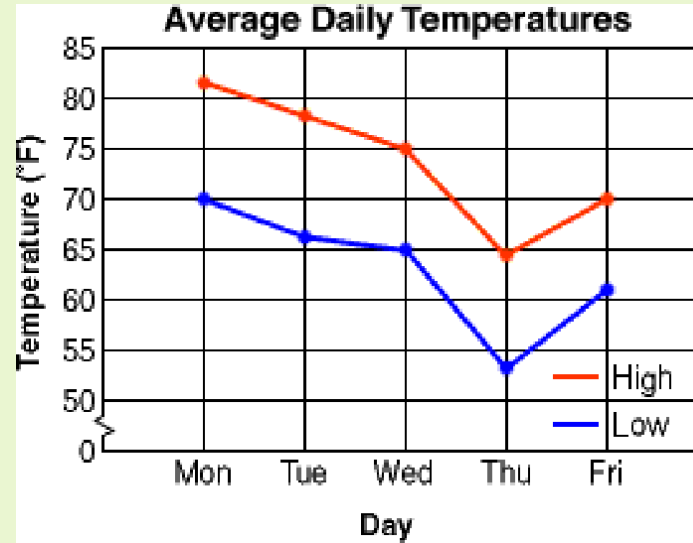


time

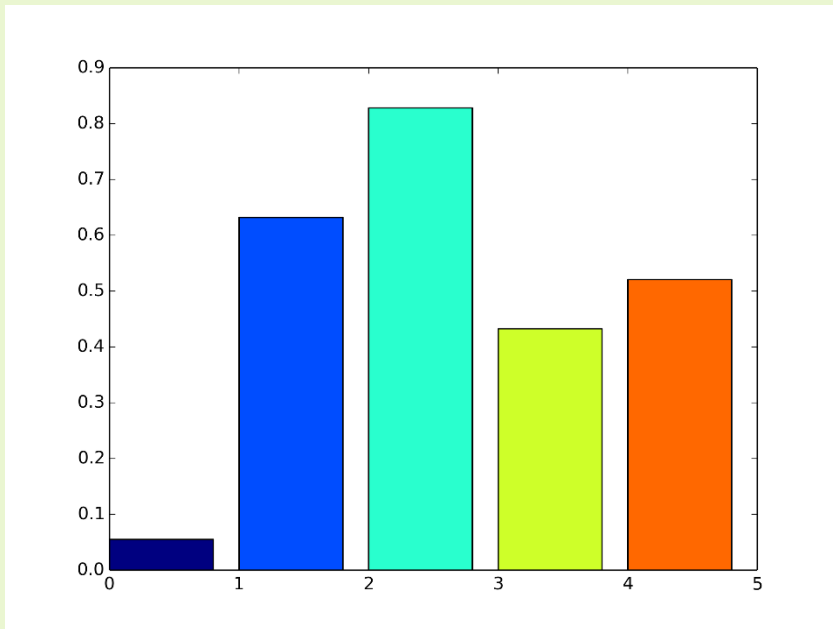
# Data handling



Pie charts



Line graphs



Bar charts

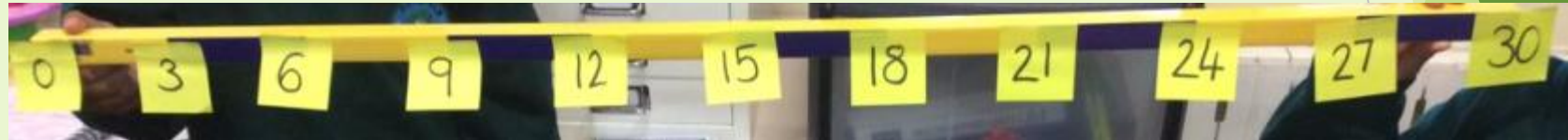
NORWICH	Dep	0500	0520	0530	0600	0630	0655	0710	0755	0805	0835	0905
Diss	Dep	0518		0547	0618	0647	0713	0728	.....	0829	0852	0922
Stowmarket	Dep	0531	.....	0558	0630	0658	0725	0740	.....	0835	0903	0933
IPSWICH	Arr	0541	0553	0610	0641	0709	0736	0751	0828	0846	0913	0944
	Dep	0543	0553	0612	0642	0710	0737	0752	0830	0847	0915	0945
Manningtree	Dep	0553	.....	0620	0652	0721	.....	0802	.....	.....	0925	.....
COLCHESTER	Dep	0604	0610	0632	0704	0732	.....	0812	.....	0906	0935	1003
Chelmsford	Dep	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1020
LIVERPOOL STREET	Arr	0653	070	0721	0756	0826	0848	0908	0933	0955	1025	1054

timetables



# Maths Fluency

- ▶ Daily 5
- ▶ Revisit previous maths learning.
- ▶ Develop quick recall of number facts.
- ▶ Times tables.



15.1.24

Daily 5

1) Calculate the duration between 08:55 and 09:32.

Draw a time line.

2)  $12 \times 12 =$

3)  $0.25 \times 100 =$

4)  $15 + 16 =$

What was the quickest method?

5) What is the perimeter of this shape?



Activate Windows  
Go to Settings to activate Windows.



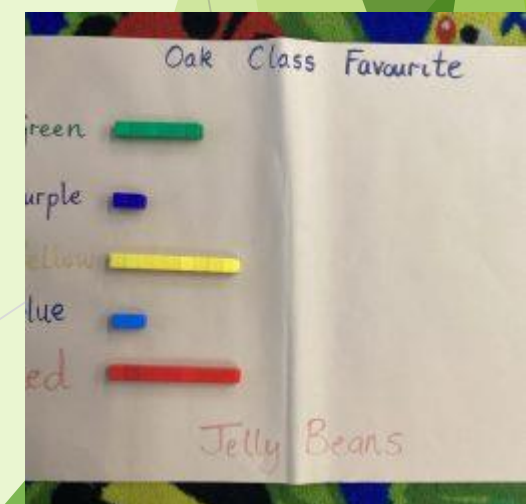
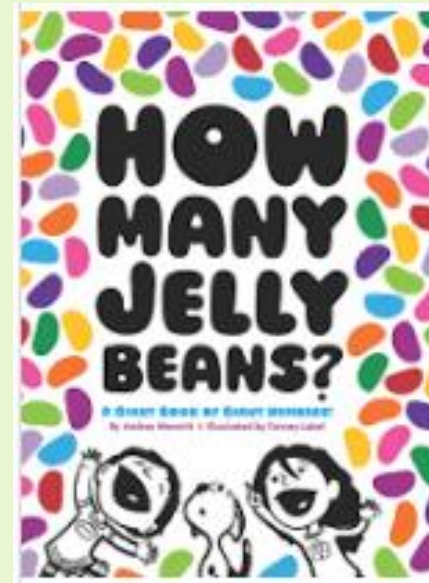
# Home Learning

- ▶ Maths choices on Home Learning Grid
- ▶ Weekly homework - My Maths (completing tasks set by teachers)
- ▶ Times Tables Rock Stars and Numbots



# Making Maths Fun!

- ▶ Maths Week
- ▶ NSPCC Number Day
- ▶ Children dressed up with numbers
- ▶ Art activities with maths theme
- ▶ Maths stories
- ▶ Outdoor learning.



# Further ways to support your child at home.

- ▶ Cooking - uses variety of Maths skills in real life contexts - such as weighing, reading a scale and time.
- ▶ Playing board games - dice reinforce subitising skills, moving counters 1:1 correspondence, snakes and ladders develops number recognition, quick recall addition and subtraction facts.
- ▶ Card games and dominoes.
- ▶ Looking at clocks at home - analogue and digital.
- ▶ Timetables
- ▶ Money - playing shopping games and giving children opportunities to use money in real life situations.
- ▶ BBC Bitesize and Herts for Learning games (YouTube).

