Maths Impact Workshop

Tuesday 30th April 2019 and Wednesday 1st May 2019

Miss Webster and Miss Cutler

Aim

This is an opportunity for you to work in school with your child and get a better understanding of how you can help support them with their learning at home. We will be discussing how we teach Maths in Reception, to prepare children for transition into Year 1.

Reception Expectation

Number: *'Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.'*

Shape, Space and Measure: *'Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.'*

Year 1 Expectation

Number – number and place value

Statutory requirements

Pupils should be taught to:

- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- given a number, identify one more and one less
- identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- read and write numbers from 1 to 20 in numerals and words.

Number – multiplication and division

Statutory requirements

Pupils should be taught to:

- solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

Number – addition and subtraction

Statutory requirements

Pupils should be taught to:

- read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$.

Number – fractions

Statutory requirements

Pupils should be taught to:

- recognise, find and name a half as one of two equal parts of an object, shape or quantity
- recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.

Measurement

Statutory requirements

Pupils should be taught to:

- compare, describe and solve practical problems for:
  - lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
  - mass/weight [for example, heavy/light, heavier than, lighter than]
  - capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
  - time [for example, quicker, slower, earlier, later]
- measure and begin to record the following:
  - lengths and heights
  - mass/weight
  - capacity and volume
  - time (hours, minutes, seconds)
- recognise and know the value of different denominations of coins and notes
- sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
- recognise and use language relating to dates, including days of the week, weeks, months and years
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

Geometry – properties of shapes

Statutory requirements

Pupils should be taught to:

- recognise and name common 2-D and 3-D shapes, including:
  - 2-D shapes [for example, rectangles (including squares), circles and triangles]
  - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].

Geometry – position and direction

Statutory requirements

Pupils should be taught to:

- describe position, direction and movement, including whole, half, quarter and three-quarter turns.

How do our children learn Maths at Wylde Green?

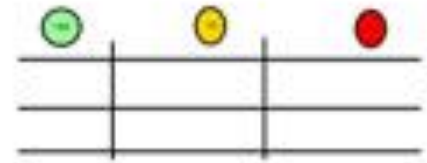
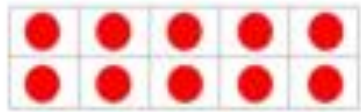
- ✓ Carpet session each day linked to Maths
- ✓ Cross-curricular table top activities and outdoor
- ✓ Lots of talking
- ✓ Thinking
- ✓ Self-discovery
- ✓ Problem solving
- ✓ Using manipulatives
- ✓ Asking questions
- ✓ Real-life learning
- ✓ Practical and engaging lessons – fascinators!
- ✓ Booster groups

'I hear and I forget. I see and I remember. I do and I understand.'

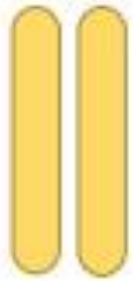
(A Chinese proverb)

At Wylde Green we use a range of concrete apparatus to support children's understanding








Addition and Subtraction

Hundred Square

-1 +1

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

+ 10

Addition

Subtraction

Activity 1: Practicing our Fluency

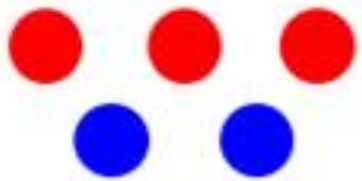
Show that 3 green cubes add 4 red cubes is equal to 7 cubes.

$$\square + \square = \square$$

Activity 3: Practicing Mathematical reasoning

Which of the pictures could help us complete the number sentence?

$$\square + \square = 6$$



"I know because..."

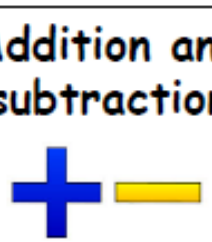
Activity 4: Practicing Problem solving

How many ways can you complete the addition number sentence?

You can use these numbers:

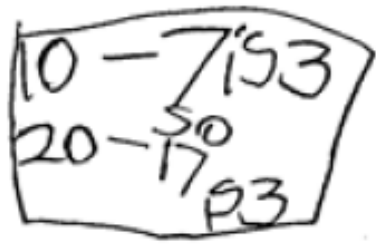
0 1 2 3 4 5 6 7 8 9

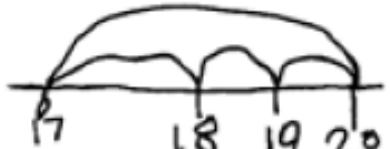
Addition and subtraction



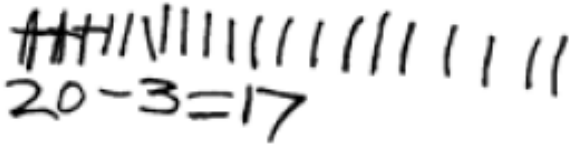
Same problem, different method

There are 20 children in our class. Three are away today. How many are here?





2 away would be 18
So 3 away must be 17.



Multiplication and Division

Multiplication and division

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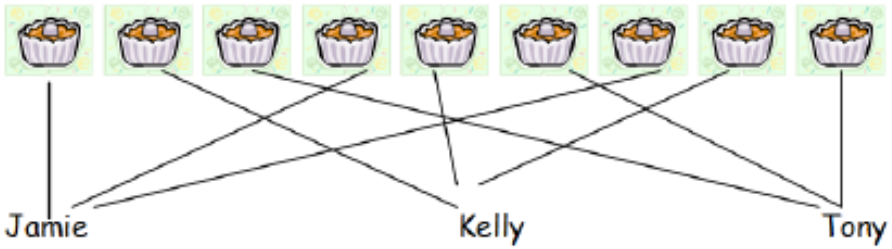
Early Stages of Division

Sharing

The tray had 9 cakes in and they were shared out between Jamie, Kelly and Tony. Each child had the same number of cakes. How many did they have each?

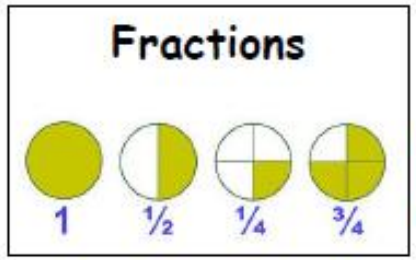


So, 9 ÷ 3 = 3

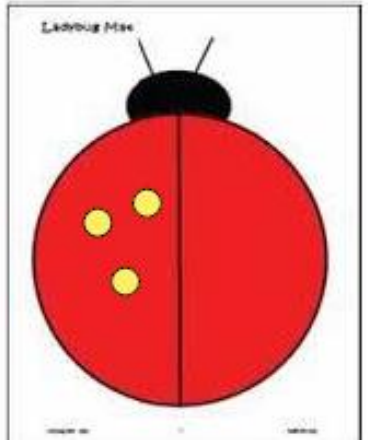
Grouping

The apples need putting into bags with 5 apples in each bag. Julie has 15 apples. How many bags will she need?

So, 15 ÷ 5 = 3



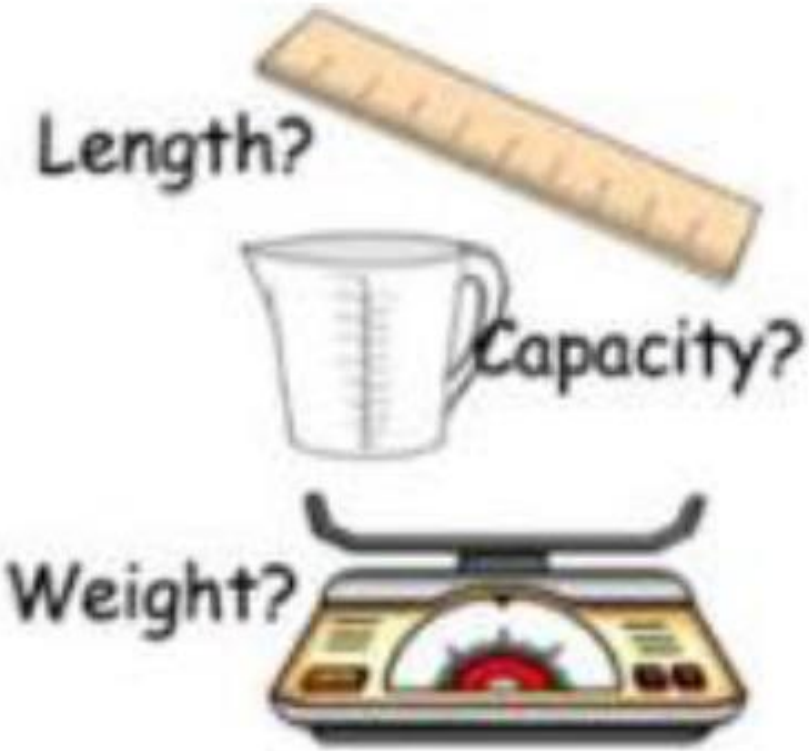
Doubling and halving



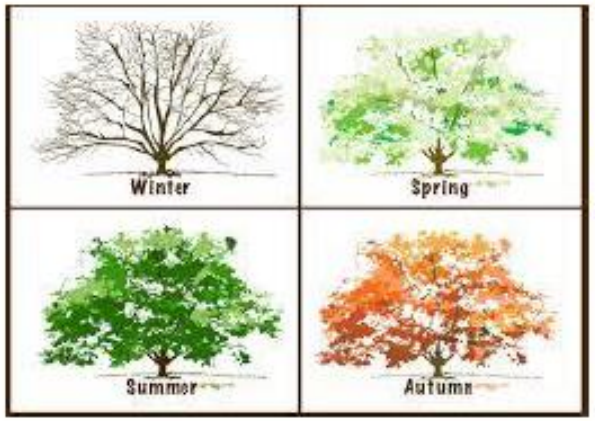
Shape, Space and Measure

Measures

Measures



Measures - Time



today

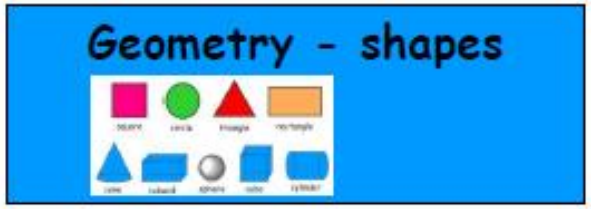
tomorrow

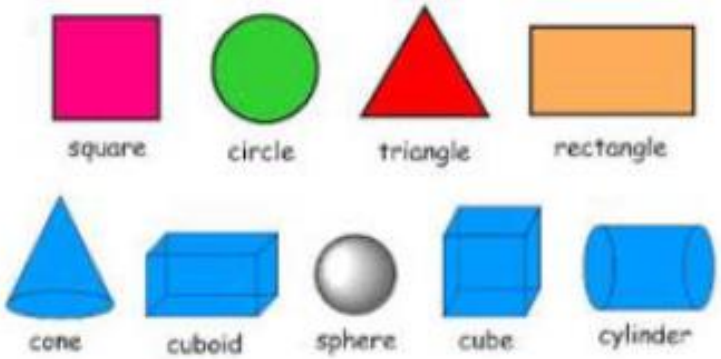
yesterday

Measures - money


Measures - Money

Shapes


Geometry - shapes


square
circle
triangle
rectangle
cone
cuboid
sphere
cube
cylinder


Coca-Cola

Ideas to help your children

Helping your KS1 child with Maths at home

MATHS WEBSITES

www.whiz.com

www.ictgames.com

www.bbc.co.uk/schools

www.crickweb.co.uk

www.counton.org

www.mathzone.co.uk

www.nrich.maths.org

www.mathsplayground.com

www.lancsngfl.ac.uk

www.childparenting.about.com

www.mad4maths.com

www.maths-games.org

www.topmarks.co.uk

www.mathletics.co.uk

www.themathsfactor.com

www.mathsformumsanddads.co.uk

https://www.havefunteaching.com/