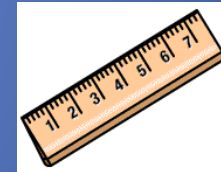
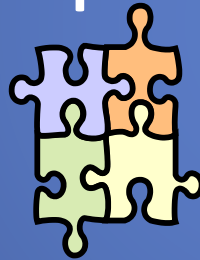


Mathematics

Numbers



Shape, Space & Measures



Talk about things. Lots of people are afraid of maths because they didn't get to play with maths.

Number



Reception-aged children work towards achieving the Early Learning Goal for Number:

- Count reliably with numbers from 1-20
- Place numbers in order, and be able to say one more and one less
- Using quantities and objects, they add and subtract two single digit numbers
- They count on or back to find the answer.
- They solve problems including doubling, halving and sharing.

$+$ $-$ \times \div

At Foundation Stage, children's experiences of addition, subtraction, multiplication and division will be a mixture of practical, oral and mental work.

Children may make a record in pictures, words or symbols of activities that they have already carried out, and may begin to construct simple number sentences. The children are encouraged to explain to someone else what they have done, how they did it and why they did it. They begin to read records made by their teacher, including simple number sentences eg. $3 + 2 =$.

Counting



- Children need to know when to count (understand the concept of 'How many?')
- They need to know the last number is the total, and be able to say 'There are...'
- They need to be able to count with 1 to 1 correspondence- 'Count how many cars there are' 'Get me 10 cubes'.
- They can count objects in a line.
- They can count objects in a pile by organising them into a line themselves.
- Understand what numbers mean.



1 more, 1 less

- Using practical objects, add one or take one away (extend to + two or - 2)
- Physically move/jump to the number one more/one less than...on a number line
- Use memory to know the number that is one more/less than...
- Start with numbers up to 5, then up to 10. Extend to numbers up to 20.

Addition +

‘I have three strawberries, my friend gives me two more. How many have I altogether?’

- Practical methods-use actual strawberries

- Pictorial representations



- Number sentence $3 + 2 = 5$

Number line +



$$5 + 3 = 8$$

Subtraction

‘I have five strawberries, I eat two. How many have I left?’

- Practical methods-use actual strawberries.

- Pictorial representations 

- Number sentence $5 - 2 = 3$

Number line -



$$5 - 3 = 2$$

Multiplication X

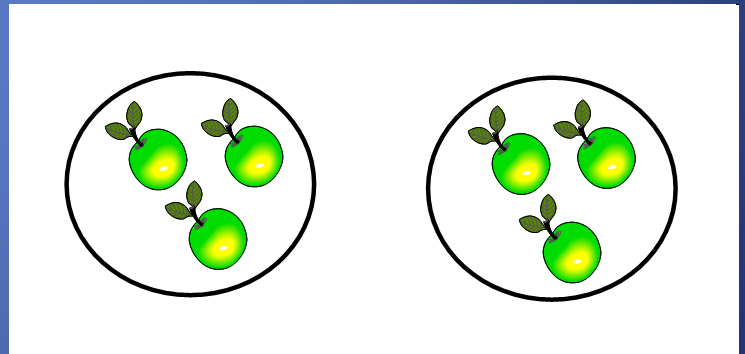
- 1 digit doubles
- Counting in multiples-2s, 10s, 5s
- Practical counting e.g. pairs of socks
- Counting using a hundred square
- Counting using body parts

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

Division \div

There are six apples, can you share them fairly between Miss Adams and Miss Riches.

- Practical methods -use actual apples.
- Pictorial representations





General Problem-Solving

- I need 6 coloured pencils. I have 2, how many more do I need?
- Amy has 12 raisins, I have 3 raisins, what is the difference?
- How many socks do 3 people need?
- Cars are 4p each....do I have enough with a 10p? How much change will I get?
- How many grapes can I fit in this tub?



Shape, Space & Measure

Reception-aged children work towards achieving the Early Learning Goal for shape, space & measure:

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

Use everyday language to talk about size, weight, capacity, position, distance, time & money.

- Where is the teddy? The teddy is behind the tree. The teddy is on the table. The teddy is inside the basket.
- Which car is bigger than my car? Which is the smallest car? These two cars are the same size.
- Which is the heaviest/lightest present? How do you know it is heavy? Can you weigh the present on the scales?
- Which container holds the most? Which is full? Can you fill it half full?
- What did you do yesterday? When is your birthday? What day is it today?
- How many pennies do you need to buy the toy?



Explore characteristics of everyday objects & shapes
& use mathematical language to describe them.

- Can you name these shapes? Can you find a square/triangle?
- Guess my shape...Its has 4 sides.
- Describe the shape. How do you know it's a cuboid?
- Which shapes would you use to make a car?
- How are a triangle and rectangle the same?
How are they different?



2D Shapes



Circle



Triangle



Square



Rectangle



Pentagon



Hexagon



Heptagon



Octagon



Nonagon



Decagon

3D Shapes



Sphere



Prism



Cuboid



Cube



Cylinder



Pyramid



Cone



Shape, Space & Measures

key vocabulary

Big/biggest
Small/smallest
Large/largest
Long/longest
Short/shortest
Tall/tallest
Heavy/heaviest/heavier
Light/lightest/lighter
Full/fullest
Empty
Half full
In, on, under, beneath
Next to, opposite, in between
Behind, in front
To the left/right of

Up, down, around
Far, near, furthest, nearest
Days of the week
Months of the year
Daily routine
Money, pence, pennies, 1p,
2p, 5p, 10p, 20p, 50p, £1, £2.
2D shapes-flat shapes
Circle, triangle, square,
rectangle
Corners, points, sides, length,
curved, straight, round
3D shapes-not flat
Cube, cuboid, sphere,
cylinder, cone
Edges, faces,



Tips for maths at home

- Maths is happening all around us all the time which helps us to make it real and make it fun!
- Make the most of everyday opportunities
- What numbers can you see?
- What shapes can you see?
- Bake –weigh ingredients, compare amounts
- Counting by rote, forwards and backwards to 20, in 2's, 5's, 10's
- Play shops using real coins
- Teddy bear tea party –sharing a given number of raisins, setting the table
- Board games such as snakes and ladders, Ludo
- Play hide the sock
- Snap –choose 2 cards and ask your child to make a given number
- Use magnetic numbers to write sums for children to solve on the fridge.