

EYFS Maths Workshop

Thursday 12th January 2023

What does the workshop consist of?

- ▶ A short presentation to improve knowledge and understanding of early mathematics
- ▶ Time in the classrooms to explore ways to support your child with maths

What is mathematics And why is it important?

Mathematics is a subject that deals with numbers, shapes, logic, quantity and arrangements. Mathematics teaches to solve problems based on numerical calculations and find the solutions.

The EYFS Framework

- ▶ Number
- ▶ Numerical Patterns
- ▶ *Shape, Space and Measure (Whilst no longer an Early Learning Goal, still important and a big part of our curriculum)*

What is my child expected to do by the end of Reception?

Mathematics

ELG: Number

Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

ELG: Numerical Patterns

Children at the expected level of development will:

- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

How do we teach Mathematics in Reception?



Autumn Progression

Number and Place Value

Numbers to 5

→ One, two, three

→ Four

→ Five

Addition and Subtraction

Sorting

→ Sorting into groups

Number and Place Value

Comparing groups

→ Comparing quantities of identical objects

Comparing quantities of non-identical objects

Addition and Subtraction

Change within 5

→ One more

→ One less

Measurement

Time

→ My day

Spring Progression

Addition and Subtraction Numbers to 5

→ Introducing zero

→ Number bonds to 5

Number and Place Value Numbers to 10

→ Counting to 6, 7 and 8

→ Counting to 9 and 10

→ Comparing groups up to 10

Addition and Subtraction Addition to 10

→ Combining two groups to find the whole

→ Number bonds to 10 – ten frame

→ Number bonds to 10 – part-whole model

Geometry Shape and space

→ Spatial awareness

→ 3-D shapes

→ 2-D shapes

Summer Progression

Geometry

Exploring patterns

- Making simple patterns
- Exploring more complex patterns

Addition and Subtraction

Count on and back

- Adding by counting on
- Taking away by counting back

Number and Place Value

Numbers to 20

- Counting to 20

Multiplication and Division

Numerical patterns

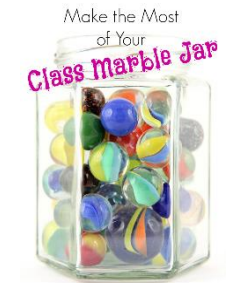
- Doubling
- Halving and sharing
- Odds and evens

Measurement

Measure

- Length, height and distance
- Weight
- Capacity

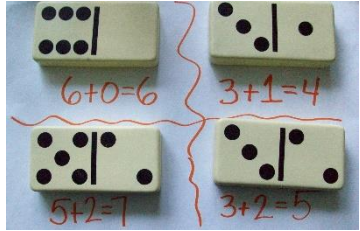
Mathematics in our Environment



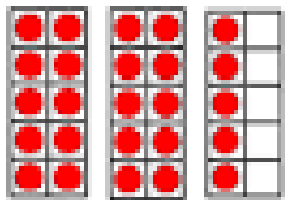
Concrete, Pictorial, Abstract (CPA approach)



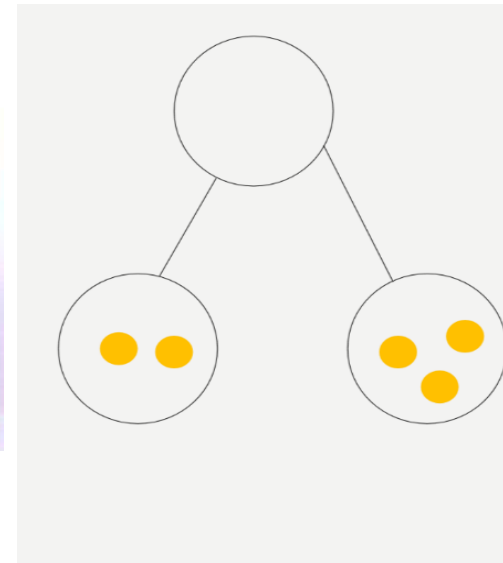
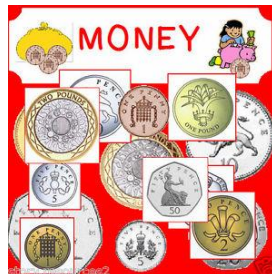
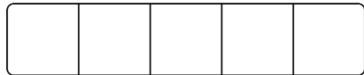
Concrete Resources



Ten Frame



Five Frame



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

Vocabulary

- ▶ More/less/fewer
- ▶ Greater than
- ▶ Long/short/longer/shorter/shortest etc.
- ▶ Big/small/biggest/bigger/smallest etc.
- ▶ Total/altogether>equals
- ▶ Add/plus/subtract/minus/takeaway
- ▶ Empty/full/half empty/half full

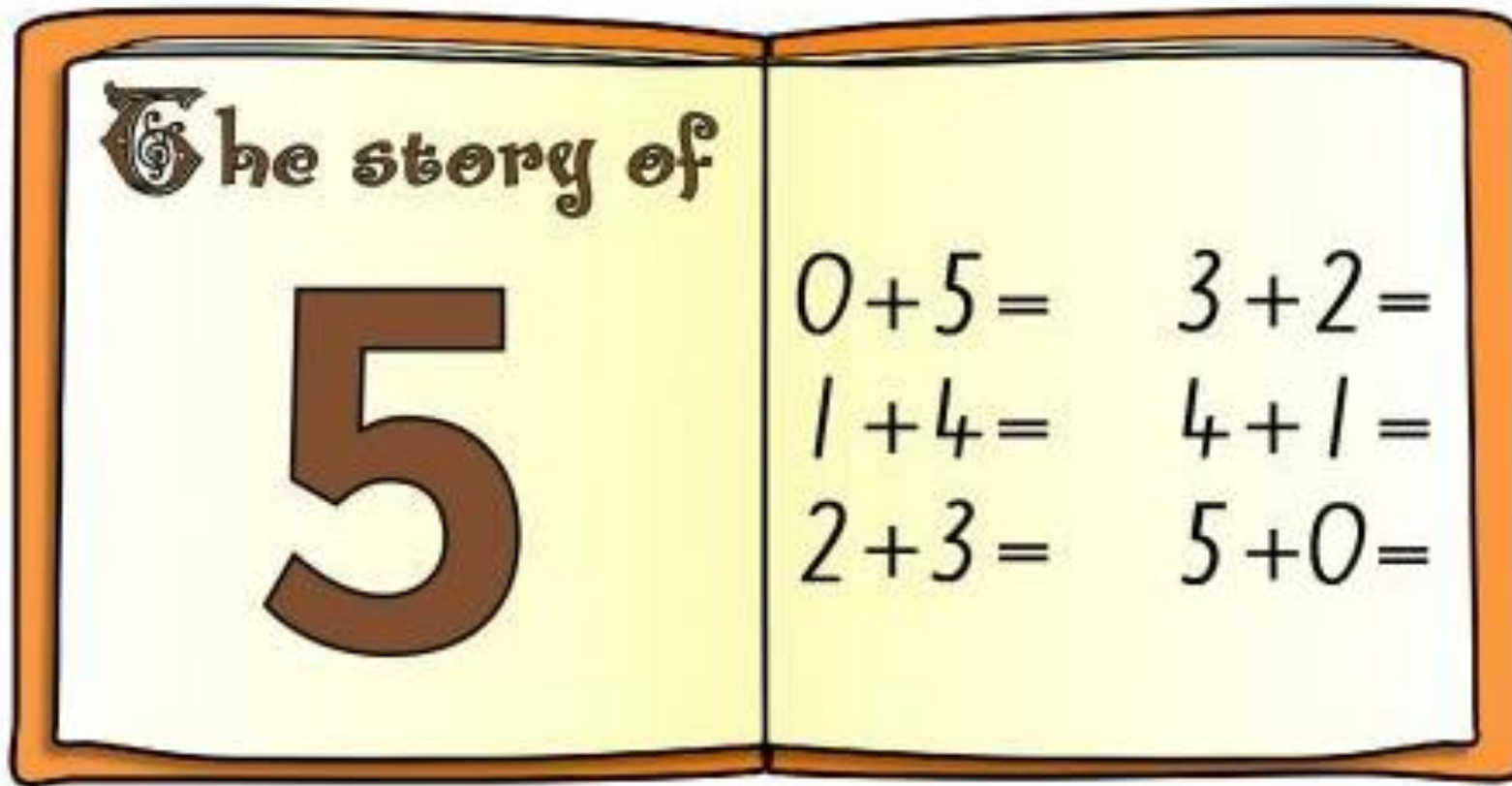
How else do we support your children with Mathematics?

- ▶ Individual next steps
- ▶ Small groups - e.g. 'Games club' (number sense, dice games)
- ▶ Real life number problems
- ▶ Vocabulary - topic and concept cat sessions

How else can parents support their children with Mathematics?

- ▶ Positive Attitude towards Mathematics
- ▶ 'Depth not breadth' approach
- ▶ Emphasise 'doing' maths
- ▶ Encourage your children to explore concepts with manipulatives before considering the pictorial and abstract (CPA approach)
- ▶ Play counting games/board games with your children
- ▶ Sing number songs and enjoy number stories
- ▶ Spot numbers and patterns in the environment
- ▶ Cooking
- ▶ Number Bond Activity Booklet (see next slide)

Number Bonds Activity Booklet



White Rose Resources

Reception – Autumn Phase 1 – Match & Sort



Sort

Home Corner

This offers many opportunities for children to sort. Can they sort the plates, bowls, cups and cutlery by colour? Can they sort them by type? How could they sort the food? Can they find more than one way? Add a variety of socks for the children to sort and a washing line to peg them onto in sets.



Enhancements to areas of learning



Finger Gym

Provide a large collection of beads in different colours, shapes, sizes etc and several small pots. Encourage the children to sort the beads into the pots and explain



Loose Parts

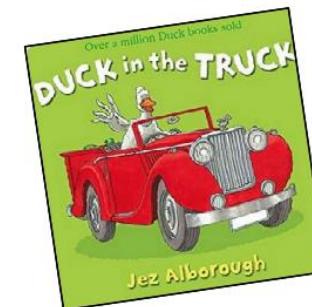
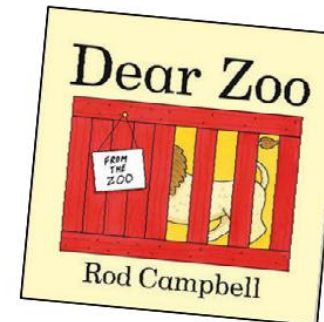
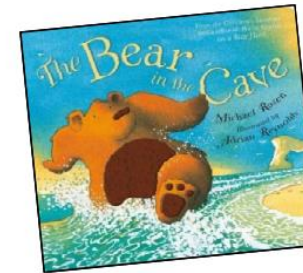
Provide a collection of loose parts – buttons are ideal and encourage the children to sort these in different ways. For example they could sort by material, shape, colour, texture. The Button Box by Margarett S Reid is an excellent starting point.



Phase 1 – Book List

Where's My Teddy/It's The Bear - Jez Alborough
The Bear In The Cave – Michael Rosen
Peace At Last - Jill Murphy
Seaweed Soup - Stuart J Murphy
Clean Up Everybody - Stacey Sparks
Beep Beep Vroom Vroom - Stuart J Murphy
The Button Box – Margarett S Reid.
Duck In the Truck - Jez Alborough
Dear Zoo – Rod Campbell
Mr Big - Ed Vere
Naughty Bus - Jan Oke
Crash Boom – Robbie R Harris
A New House For Mouse - Petr Horacek
The Right Place for Albert - Daphne Skinner

Reading to children is an essential part of their development. Any of these books would be useful during Phase 1



<https://whiterosemaths.com/resources?year=early-years>

Other useful Resources

- ▶ <https://www.gov.uk/government/publications/early-years-foundation-stage-framework--2>
- ▶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1007446/6.7534_DfE_Development_Matters_Report_and_illustrations_web_2_.pdf
- ▶ Numberblocks (CBBC)
- ▶ White Rose App - 1 minute math (subitising section in particular)

What happens during the workshop?

- ▶ Maths activities in the Reception area (3 classrooms, creative zone and outdoor learning zone)
- ▶ Pairing up
- ▶ Activity Information
- ▶ Questions
- ▶ Please **DO NOT** use your phone at any point during the workshop. Photos must not be taken.

Example Activity

We are learning to brush our teeth.



Can you brush the teeth?

What will you use?

How often should you brush your teeth?

What happens if you do not clean your teeth regularly?

What happens when the workshop finishes?

- ▶ Tidy up time
- ▶ Leaving
- ▶ Google Form

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the left and right sides of the frame, leaving a large white central area. The shapes are layered, creating a sense of depth and movement.

Thank you!