

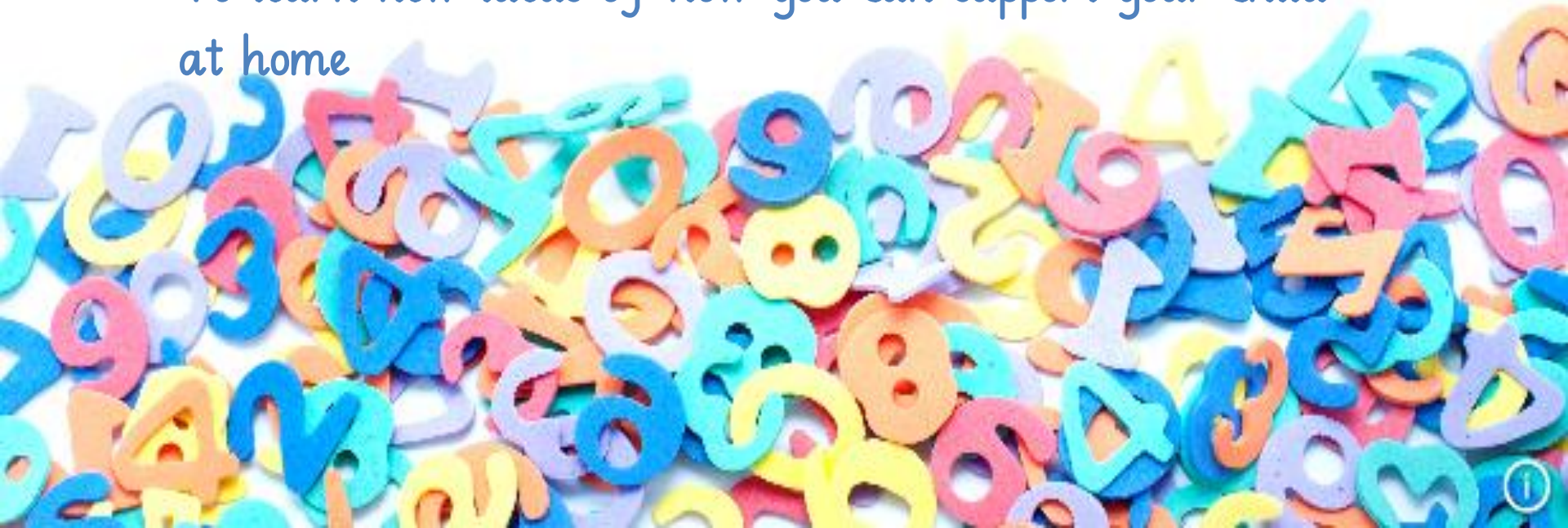


Welcome to Reception's
Maths Workshop

Please help yourself to refreshments.

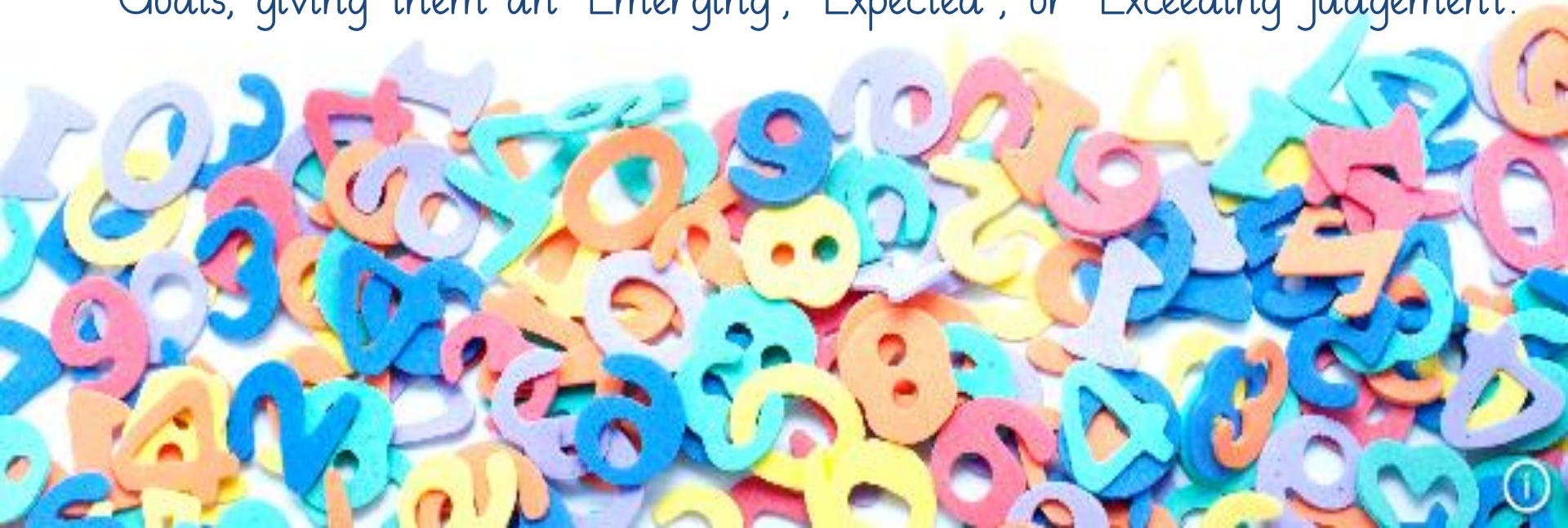
Aims for today

- To understand the early stages of maths development
- To know the expectations of children in maths at the end of the summer term (ELGs)
- To become more confident with your ability to support your child in maths
- To learn new ideas of how you can support your child at home



Early Years Maths curriculum

- Maths in the Early Years covers two areas of learning;
 - Number
 - Shape, space and measures
- Throughout the year we teach and assess children against the 'ages and stages' (developmental steps eg 30-50 months, 40-60 months)
- In the summer term we assess children against the Early Learning Goals, giving them an 'Emerging', 'Expected', or 'Exceeding' judgement.



Early Learning Goals

- End of year expectations for 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**.



Early stages of Numbers

- Being aware of numbers
 - Uses number names and number language spontaneously
 - Realises that anything can be counted, not just objects e.g. claps, jumps, count downs
 - Shows curiosity in number by asking questions or commenting “How **many**..?”
“Can I have **more**..”
 - Beginning to represent numbers
 - Knows that numbers identify how many are in a set
 - Understanding that a quantity changes if something is added or taken away.



Early stages of Number *continued*

- Knowing & understanding numbers
 - Recognising numerals
 - Counting objects or actions
 - Selecting the correct numeral to represent quantity
 - Counts the total of two groups
 - Understanding value and position (Ordering numerals or quantities)
 - Finds and says the number that is one more



Numbers in everyday life

- Some children struggle to count and use numbers naturally, it's not that they "can't do numbers"; they just need more practice!
- Think, Pair, Share.
- In tables, can you think of ways where numbers come up naturally in everyday life?

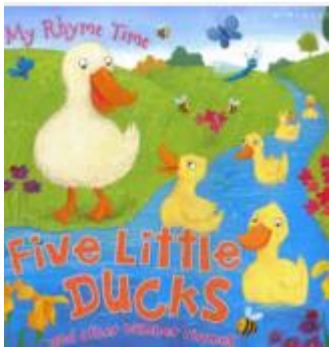
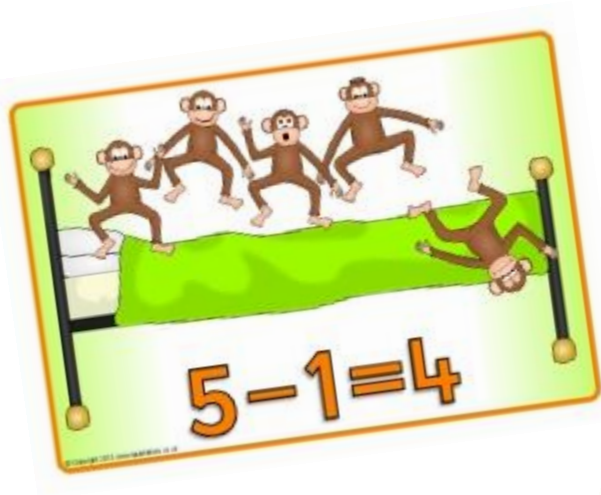


Using numbers everywhere!

- Counting up and down stairs
- House numbers
- Road speed limit signs
- Oven/Washing machine setting
- TV remote
- Toys
- Stories
- Hide and seek
- Getting dressed (!)
- Food/cooking
- Rhymes and songs



Never underestimate the power of song...



Numbers in school





















- Purpose and a context- how can we use numbers to help us?
 - How many children are present? How many lunches will the school cooks need to make?
- Counting children in 2s before we go to forest school
- Play e.g. candles on a cake, hide and seek, countdown to exciting events, tea party etc
- Context subtraction e.g. Olaf & his buttons
- Sharing food between animals in Dear Zoo
- Counting lots (for a purpose)
- Exposure to number
- Matching quantity to numeral
- Ordering
- Counting forwards and backwards
- Using practical objects
- Using the number line
- Recording
- Number rhymes

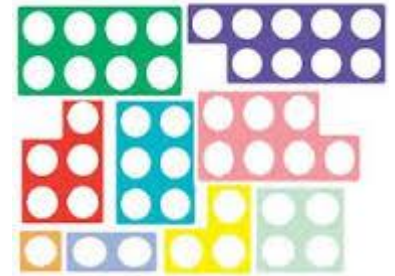


Your turn to have a go!

- Target throwing – recognising numbers, adding numbers, saying one more or one less
- Hear the sounds – count how many sounds the musician is playing
- Play dough – can you make the numeral? Can you make a cake with lots of candles?
- Skittles – subtraction
- Giant snakes and ladders
- Tea party with cuddly toys / people! Share the food, cups, saucers etc.
- Number puzzles – find your friend
- Cuddly bears – hide and seek

Resources

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
																			



Addition

Progressive stages in Addition

Stage 1

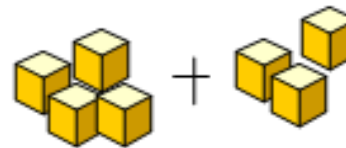
- ✓ Recognise numbers 0 to 20 (value and position)
- ✓ Count objects reliably up to 20 (beginning with 1:1 correspondence)
- ✓ Find one more than a number
- ✓ Count in 1's and 10's

0 1 2 3 4 5 6 7 8 9 10



Stage 2

- ✓ Begin to relate addition to combining two sets of objects
- ✓ Add two sets of objects together by counting reliably



Stage 3

- ✓ Begin to use + and = symbols in varying positions
- ✓ Know that addition can be done in any order

$$7=3+4$$



$$2+5=7$$

2 count on 5



$$5+2=7$$

5 count on 2

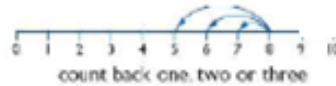


Subtraction

Stage 1

- ✓ Begin to count back in familiar contexts – nursery rhymes, tradition tales etc.
- ✓ Continue to count back in ones from a given number
- ✓ Begin to relate subtraction to 'taking away'

10, 9, 8, 7, ...



Five fat sausages
frying in a pan...



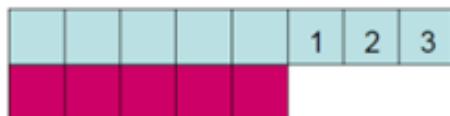
Stage 2

- ✓ Find one less than a number
- ✓ Count back in tens



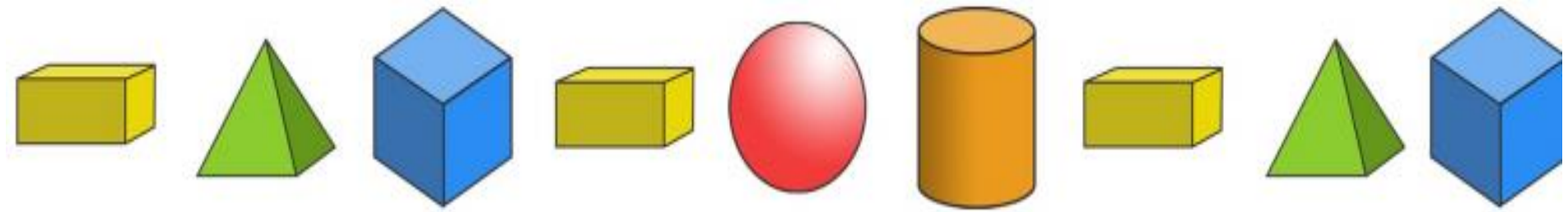
Stage 3

- ✓ Begin to use – and = symbol to record a calculation using numbers up to 10, whilst still using practical apparatus
- ✓ Compare two sets to find the numerical 'difference'
- ✓ Subtract numbers when solving problems in a range of contexts by understanding related vocabulary

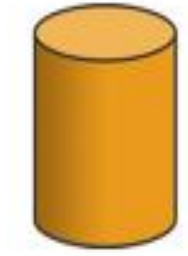


Maria had six sweets and she ate four. How many did she have left?



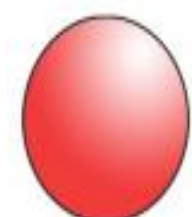
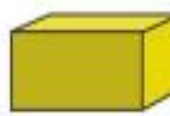
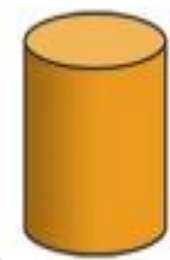


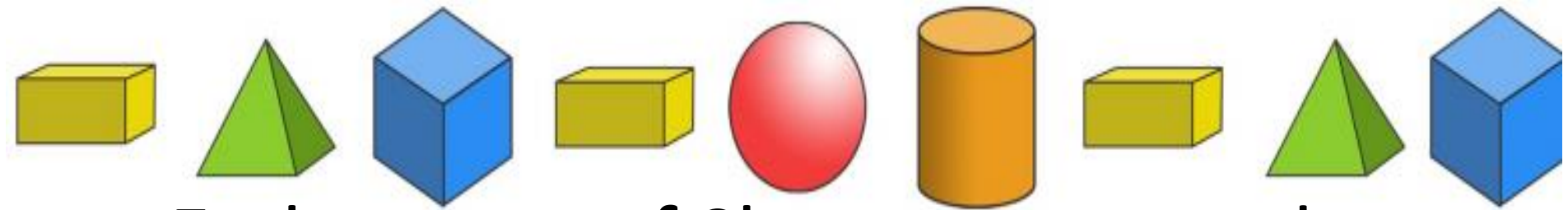
Shape, space and measures



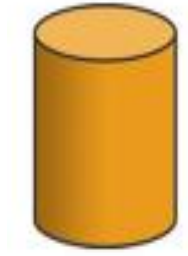
- *Shape, space and measures*

- 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.

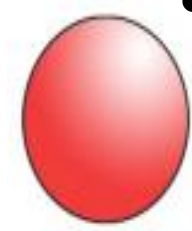
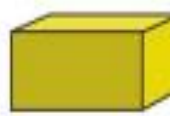
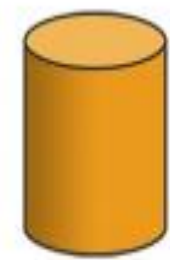




Early stages of Shape, space and measures



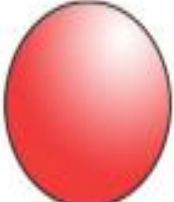
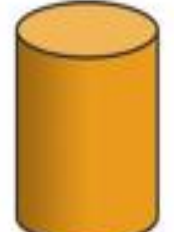
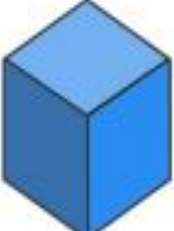

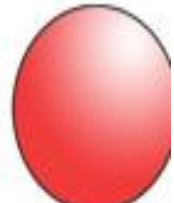

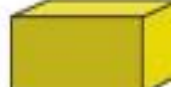

- Noticing and showing an interest
 - Shapes in the environment
 - Playing with shapes, including building blocks
 - Patterns
 - Sorting and grouping according to shape and size
 - Using positional language
 - Playing with volume, capacity, weights etc

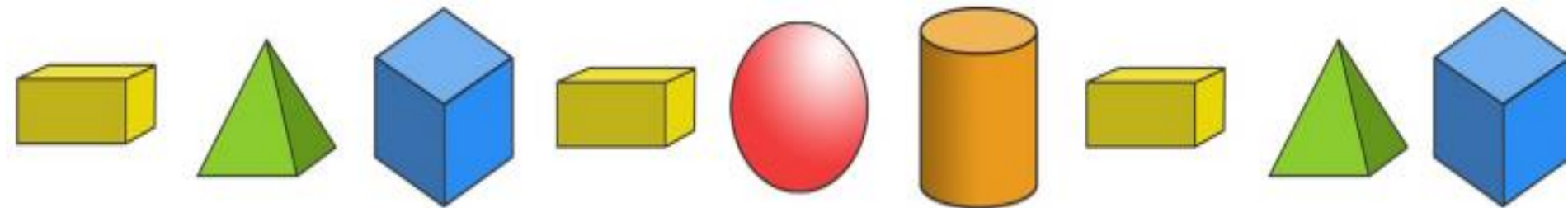




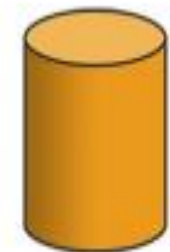
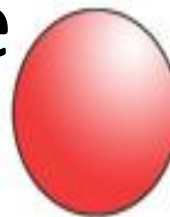
Early stages of Shape, space and measures *continued...*

- Language

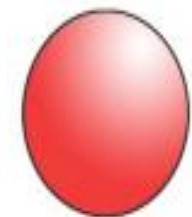
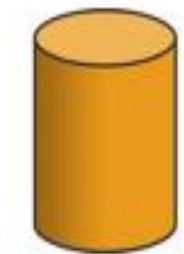
- Describing and naming shapes using mathematical language
 - Understanding before, after, later, next, basic time
 - Everyday language to talk about capacity, weight, height, length, distance, and can compare them.
 - Talks about money and understands it's basic use
 - Describing own relative position
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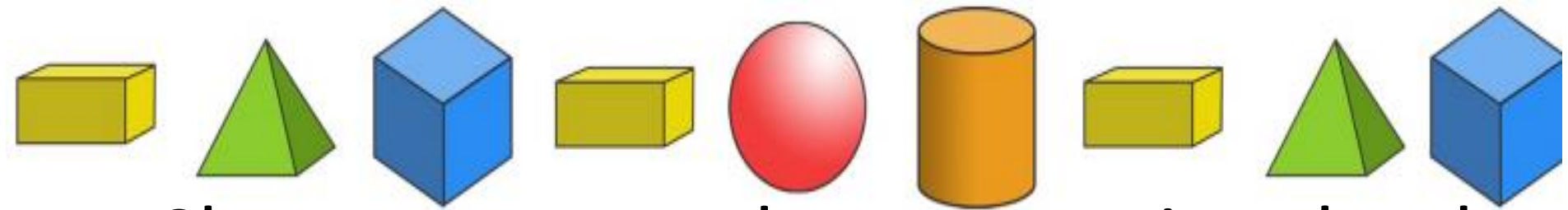


Shape, space and measure at home



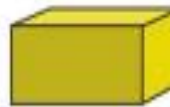
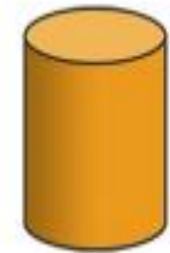
- Jigsaw puzzles
- Tidying away – how will it ever all fit!
- Clothes and growing
- Food (eg filling water glasses) and cooking
- Games outside eg kicking a ball, long jumps
- Junk modelling
- Unloading shopping and storing it away

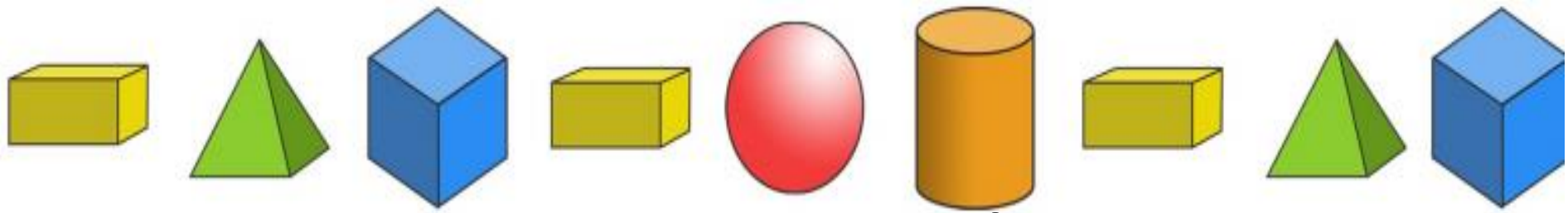




Shape, space and measures in school

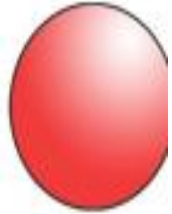
- Water play
- Sand play
- Using construction – 3D shapes and patterns
- Junk modelling
- Comparing teddies or toys – size
- Using balance scales to investigate weight
- Comparing bags of objects – weight
- Feely bags – describing shape





Your turn!

- Capacity tray – whose container holds the most?
- Blocks – build a castle using 2 different 3D shapes
- Compare and order your friends – tallest to shortest
- Short straw – pick straws and order them by length – shortest straw = a forfeit!
- Shape picture – make a picture by drawing round shapes
- Weighing station



How you can help

- Value numbers and promote the importance of number
- Count anything and everything!
- Look for numbers and shapes in the environment e.g. clock, signposts, number plates
- Share number problems with your child – How many plates do we need to put out for dinner? How many knives? How many forks? Etc
- Select the channel (TV controls)
- Writing numbers
- Drawing / representing quantities
- Sharing / halving with siblings (sweets!)
- Homework activities!

Your turn!

- Work with your child on activities around the hall
- Remember to challenge your child as well as support them – if you are unsure then please talk to us
- Think about how you can use and develop some of these activities at home.
- Have fun!