

Early Numeracy

Numeracy is using mathematical information in everyday life. It involves logical thinking and *solving problems* while responding to day-to-day situations. Numeracy helps us make sense of our world. Children can learn to ask questions like:

- How many?
- Does it fit?
- How big is it?
- Which way will I go?
- Is it likely to happen?
- How much is there?
- Will there be enough?



Numeracy is made up of many elements:

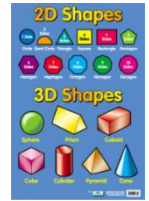
Number - counting (number sequence), one-to-one correspondence, last number counted tells us how many (TOTAL), ordering numbers, recognising and writing numerals, matching numerals to amounts, comparing quantities, dividing objects into groups, patterning.

- Go on a number hunt – find numbers around your house, in the shops and around your neighbourhood.
- Counting objects – **touch each object as you say the number names/have your child copy (one to one correspondence)** – fingers/toes in bath, buttons as you do up clothing, pegs used to hang out washing. *The last number counted tells us how many in the group.*
- Playdough – many possibilities for counting (use playdough mats, pretend cooking...)
- Draw and talk about the number of things in their pictures. Write the ideas as a story e.g. *There are 5 pieces of fruit in our bowl. There are 3 apples and 2 are bananas.*
- Counting using movement – how many throws can we do without dropping the ball, steps to the front door.
- Use different numbers as a starting point, e.g. start at 6, count on to 10. Count forwards and backwards. What number comes before ___ or after ___?
- Read and talk about stories and rhymes that use numbers (e.g. **The Doorbell Rang**, Pat Hutchins **The Very Hungry Caterpillar**, Eric Carle, **Ten Apples Up On Top**, Theo LeSieg)
- Sing songs and nursery rhymes (*5 Little Ducks, Baa Baa Black Sheep, 1 2 3 4 5 Once I caught a fish alive*) – this is often how children first learn the counting words through repetition of number names.
- Play board games – ones that involve dice are good (use dot dice and number dice)
- *Sharing* out objects – splitting things into *equal amounts to make it fair*– early fractions “Half the apple for me/half for you”, quarters, sharing out M&Ms with a sibling, *more than/less than/the same as*
- Collect and sort real life objects (shells, leaves, rocks) – how did you sort them? (*colour/size/shape..*), *same/different*
- Count the pieces of food as you cut up fruit/sandwiches, cups/cutlery as you set the table
- Make farmyards from empty cartons – count the number of toy animals as they are placed in each yard. Ask questions such as: Which yard has the most animals? How many will you have if we add one more?
- Patterning – use coloured pegs, blocks, beads to begin a pattern for your child to continue (e.g. red, blue, red, blue...) AB, AAB, ABC
- Seeing patterns in everyday life – clothing, crockery, building materials. Action patterns – hop, jump, hop, jump, hop, jump.



Spatial awareness – 2D & 3D shapes, position (under, over), location (near, far) and movement (turn, roll)

- Look for shapes in the environment - objects inside or outside the house, in stories, at the park/shops – things that are shaped like a circle, triangle, rectangle, square....
- Make shapes using rope, toothpicks, straws
- Make your own gift wrapping by printing shapes onto paper using sponges, corks...
- Play *I Spy* games and describe things by shape and size. *I spy with my little eye.....something that is big and shaped like a square.*
- Use boxes and containers of different sizes to play stacking games
- Make biscuits using cookie cutters or make pretend biscuits from playdough – talk about shape/ size.
- Playing with wooden blocks – building towers. Characteristics of the shapes (sides, corners, roll, stack...)
- Use position vocabulary e.g. *near, far, beside, behind, in between, next to, in front, under, over, first, last, above, up, down...* to observe and discuss the position/location/direction of objects.
- Play giving directions games using household objects “Put the spoon in the cup, put the cup on the plate”
- Puzzles – develop many concepts (size, shape, colours)



Measurement – size, length, area, mass (weight), volume, temperature, time – using informal terms, lots of opportunities for comparing

- Use play dough to roll out ‘snakes’ of different lengths/thicknesses – talk about *shorter, longer, thicker, thinner, wider, bigger, smaller, straight, curved, bent*
- Trace around your child’s foot onto a piece of card and cut it out. Use this to measure the length of things such as a table or bed – how many feet long is it? Before measuring, guess how first.
- Record your children’s height on a family height chart
- Compare the height of family members – talk about who is *taller or shorter*
- Opportunities to use rulers, tape measures – to explore measuring
- Building blocks - a block tower *taller/shorter* than a favourite toy, *short/long* block paths
- Cut a piece of string (any length) – find things around the house that are *shorter/longer*
- Groceries – sorting items (e.g. fridge/pantry), ordering food items by height (*tallest to shortest*)
- Use different sized plastic cups and containers to play with in the bath or a bucket. Guess how many cups of water to fill the container, *full/half full/empty, holds more/holds less*
- Sandpit play – filling containers with sand, *holds more/less*
- Cooking – talk about measurements (cups, teaspoons, tablespoons) *more/less/full/empty*, counting eggs, muffin papers in trays. Make simple picture and word recipes to follow with your child
- Using everyday objects to fill/compare containers – marbles, rocks, buttons, rice
- “Hefting” – balancing an object in each hand and deciding which is *heavier or lighter*
- Talking about events in terms of time – *long/short time, today/tomorrow*
- Using a calendar – record special events, talk about the days of the week, how many sleeps until ___?
- Talk about the weather/seasons – what might they need to wear if it is a *warm/cold* day?



Interactive games on ipads, computers etc. don’t replace the benefit of using concrete materials to manipulate and explore numeracy concepts. Hands on activities provide the opportunity to problem solve through trial and error, while developing fine motor control.

