Maths in the Early Years

- Maths in Reception is divided into two main categories; ‘Number’ and ‘Shape, space and measures’.

- Today we’ll focus on Number but will deliver a further information meeting on Shape, space and measure soon.

- We aim to discuss how we teach Number in school and ways in which you can help your child develop their number skills at home.
How is Maths taught in Reception?

• Whole class learning time on the carpet. This is a quick 5 minute recap on core skills such as counting and number recognition and then a 10 minute focus on a particular concept such as adding, writing numbers, estimation etc...

Maths is always taught in a purposeful way.

• Children will then have the opportunity to practise this new concept during their free play (specific activities will be available and encouraged).

• 1:1 intervention with an adult is provided if necessary (5 minute recap on any skills a child is finding difficult).
Recognising numerals 1 to 10.

At Home try:
• Making flash cards.
• Go on number hunts.
• Play musical games (e.g. when the music stops stand on 1 etc...)
• Looking for numbers when out and about (on buses, doors etc...)

• Put magnetic numbers on the fridge.
• Make number lines (using string and pegs.
• Read number books.
• Play number board games (snakes and ladders etc...)

12
Counting beyond 10 (by rote).

0,1,2,3,4,5,6, 7,8,9,10,11, 12,13,14,15...

At home try:

- Counting to 100 whilst brushing their teeth.
- Count how long it takes to do something e.g. lay the table etc...
- Counting on the way to school (whilst walking or in the car)
Counting up to 10 objects by saying one number name for each item (including irregular arrangements).

At home try:

- Counting plates, cups etc...
- Counting food items such as tins or sweets.
- Counting their books, dvd’s etc....
- Counting shells at the beach.

- Counting how many red cars go past etc...
- Counting toys.
- Counting fingers.
- Counting buttons as they do them up.
Counting actions.

At home try:
• Counting steps when climbing the stairs or walking to school.

• Counting how many times they can kick or catch a ball in the garden.

• Count claps, jumps, hops etc...
Counting out up to six objects from a larger group.

At home try:

• Counting out sweets, raisins etc...
• Counting out cutlery.
• Counting out washing.
• Counting out toys in the bath etc...
• Counting out food items in the shops.

• Count out fruit pieces.
• Count out toys.

‘Can you get me 6......’
Selecting the correct numeral to represent up to 10 objects.

At home try:

- Making number cards and matching them to groups of objects around the house. For example number 2 next to two apples, number 4 next to three chairs etc....
- Make your own matching worksheets or download them from the internet.
- Keep a marble or sweetie jar and stick a label on the front to show how many they are. Each time the amount changes stick a new label on the front.
- Draw a line to match pictures of objects to the correct number (you can print of worksheets online).
Estimating how many objects they can see and checking by counting them.

At home try:

• Guessing how many sweets or marbles are in a jar.
• Guessing how many steps to school.
• Guessing how many seconds it will take to do something e.g. run to the park benches and back / go down the slide etc...
Using the language of ‘more’ and ‘fewer’ to compare two sets of objects.

At home try:

• Collecting items indoors or outdoors and then create two different sized groups to compare.
• Compare quantities at dinner time (who has the most / fewest peas etc.?)
Finding the total number of items in two groups by counting all of them.

At home try:

- Adding 2 groups of anything you can find outside or inside.
- Exploit any opportunity that arises to find a total amount e.g. there are 4 people in our car and 2 in Nanny’s how many is that altogether?

‘Altogether’
Saying the number that is one more than a given number.

‘What’s one more than 3?’

‘4’

At home try:

• Quick fire questions in the car etc…
• Exploit opportunities that arise e.g. you had 6 power rangers but now you have one more, how many is that now?
• Make a number line using some string and pegs so children can see which numbers come next.
Finding one less from a group of up to ten objects.

At home try:

• Sing songs that involve taking one away (5 little speckled frogs) using visual aids if possible.
• Practise counting how many toys are left if we take one away.
• Find one less using their fingers.
Using the vocabulary involved in adding and subtracting.

'Add, plus, take away, left, altogether...'

At home try:

• Using mathematical language as appropriate throughout the day. For example...Now Dad wants some biscuits too so we need to add 2 more, how many will that be altogether? We had six eggs but two of them are broken! How many are left?

• Demonstrate signs we use at school for add, take away, equals and altogether etc....
Recording using marks that they can interpret and explain.

At home try:

• Make tally charts (set up a café and make tally charts to see what everyone wants for tea / keep rewards charts for good behaviour / keep score during any games, from football to snap!).
• Make marks during role play e.g. shops etc...
• Use reward charts.
• Keep score during games (team games – indoors and outdoors).
• If able start recording practical additional / subtraction using simple sums.
Beginning to identify their own mathematical problems based on own interests and fascinations.

At home try:

• Encourage children to solve any mathematical problems they come across during their play (often during their role play, especially shops!)
• Make deliberate mistakes so children attempt to problem solve independently.
Achieved these targets and working within the Early Learning Goal?

- 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**.
What’s different?

• Children will be practising the same activities that we have just discussed but they will now be using numbers up to **20**.
• They are attempting to count up to 20 objects **reliably**. It's trickier than you think!
• When counting two groups of objects or taking some away they are now beginning to count on or back in their heads rather than having to count both groups *demonstration.
• They are beginning to understand how to double, halve and share quantities.
Doubling

At home try:

- Doubling whilst cooking (we need double the number of eggs etc...)
- Play dominoes.
- Double the number of fruit / sweets / toys etc...
- Doubling games (grids, sweets or coins and dice) *demo
- Sticking: make doubling ladybirds.
- Painting: make doubling butterflies (fold in half)
- Doubling songs *demo
- Double rabbit ears; using our fingers *demo
Halving

At home try:

• Cutting fruit, pizza’s, cakes into two halves.
• Cutting shapes in half.
• Do butterfly paintings (folding paper in half).
• Fill containers up so they are half full (using water etc...)
Sharing

At home try:

• Demonstrating how to share food / toys equally.
• Have teddy bears picnics.
• Set up pretend café’s.
Difficulties with numbers 11-20?

• These numbers can often be the most complicated to fully understand.

• 20+ make sense. 21 is 20 and 1 more 22 is 20 and 2 more.

• Children often want to say ‘tenty one’ for 11 or ‘tenty 2’ for 12 and will often write number 11 like this 101 or number 12 like this 102. They have picked up on a pattern and are following it logically! The number after 10 must be 1 more? If only it were that easy!

• If children make this mistake, praise them for being so smart in realising that 11 is 10 and 1 more but explain that we don’t need to write the zero. *Demonstration using place value cards.
Achieved Early Learning Goal?

Challenges for children working within Year 1 targets:

• Practise counting in 2’s, 5’s and 10’s.
• Writing simple number sentences to record practical addition and subtraction.
• Introduce a number square to 100 and leave some spaces blank for children to guess which numbers are missing.
• Number hunt using random numbers to 100. Ask children to place them in order from highest to lowest.