

# Mathematics in the Early Years



Enjoying learning

Maths is fun!

Parent Workshop  
January 18<sup>th</sup> 2016

# Stages and Expectations

Children are generally working within these developmental age bands at Primary School

30-50 months: Pre-school/Nursery

40-60 + months: Reception

The expectation is that the Early Learning Goals will be achieved by the end of Reception.

# What are the expectations?

The Mathematics 'Early Learning Goal' (ELG)

## Numbers (N)

Children count reliably with numbers from 1-20, place them in order and say which number is 1 more or 1 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 are the expectations?

The Mathematics 'Early Learning Goal' (ELG)

## Shape, Space and Measures (SSM)

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.

# Everyday Mathematical Language

Mathematics is about more than counting. The development of mathematical vocabulary is crucial. Here is a list of everyday mathematical words and activities you are probably already using with your children.

- Big, bigger, biggest, tall, small, long, short, far.....
- Less, more, a lot, little, fewer, the same
- Lots of counting (including zero 0), number and numeral
- Language of shape ('Pass me the round one please')
- One more and one less ('two, three')
- Please give me one ('two, three')
- Full, empty, half full, half empty, nearly full.....
- Heavy , light, heavier than, lighter, weight
- Songs (e.g. 1,2,3,4,5 once I caught a fish alive)
- Before, later, soon, days of the week, months of the year, yesterday, today
- Time ('It's 8 o'clock, time to get ready for school')
- Behind, next to, on top .....
- Money ('That will be 20p please. Have we got enough? Can you find the 50p coin?')
- Total, how many?, altogether, add, plus, take away, subtract

# What to expect in Mathematics in Reception

## 'I can' statements

30-50 months	40-60 months	Early Learning Goal
<p><b>Numbers</b></p> <ul style="list-style-type: none"> <li>• I can use some number names and words like "more than" and "fewer than", when I am playing.</li> <li>• I can say numbers in order from 1 to 10.</li> <li>• I know that numbers tell me how many things there are altogether, like 8 biscuits on a plate.</li> <li>• I use my fingers, pictures or marks to show you how many things there are.</li> <li>• Sometimes I can match a numeral to the right number of things, like "3" to three balls.</li> <li>• I am interested in numbers and I talk about them and ask you questions.</li> <li>• I know when there are the same number of things, like 2 cakes, one for you and one for me.</li> <li>• I show I am interested in playing with numbers when I share things out in different ways, like putting my 10 farm animals in 2 fields and then in 3 fields and I am beginning to know there are still 10 animals.</li> <li>• I talk about the numbers I see when we are outdoors.</li> <li>• I am interested in making marks and calling them numbers.</li> <li>• I know that I can count claps and jumps as well as things like</li> </ul>	<p><b>Numbers</b></p> <ul style="list-style-type: none"> <li>• I can recognise numbers that are important to me like my age, my flat number or the bus number that I go to nursery on.</li> <li>• I can recognise the numbers 1 to 5.</li> <li>• I can touch one thing and say the number name at the same time to help me count up to 3 or 4 things.</li> <li>• I can count the number of things on a page in a book or on a birthday card.</li> <li>• I can match the right number to a group of things from 1 to 5 to begin with, and then from 1 to 10.</li> <li>• I can guess how many things I can see in a bucket and then count them to see how close my guess was.</li> <li>• I can tell you which basket or bucket has got "more" or "fewer" things in.</li> <li>• I can put two baskets of things together and tell you how many things I have altogether.</li> <li>• I can tell you what "one more" is when you say a number.</li> <li>• I can tell you what "one more" or "one less" is when you give me a group of up to 5 things, then up to 10 things.</li> <li>• I can use words like "more", "add", "less" and "take away"</li> <li>• I can use marks and pictures to show you my counting.</li> <li>• I can use counting to help me solve problems that are important to me, like splitting my sandwich in half to share with my friend.</li> </ul>	<p><b>Numbers</b></p> <ul style="list-style-type: none"> <li>• I can use numbers from 1 to 20 in the right order when I am counting things or singing rhymes.</li> <li>• I can tell you what "one more" or "one less" is when you say a number.</li> <li>• I can add groups of 2 things together and tell you how many I have got altogether and take things away from a group to tell you how many things I have got left.</li> <li>• I can solve problems that are important to me like sharing snacks between me and my friends so that we all have the same number of pieces of fruit.</li> </ul> <p><b>Shape, space and measure</b></p> <ul style="list-style-type: none"> <li>• I can use words like "big", "small", "heavy", "light", "in", "under", "pound", "pence", "morning" and "night" when I am playing with groups of things.</li> <li>• I can make patterns and tell you about them.</li> </ul>



# 30-50 months - Number

## How can you help?

- Recognising door, car plate or bus numbers



- Counting a pre given set of objects and then seeing if they can find the numeral to 10



- Counting to 10- 'Count out 4 potatoes for dinner' or 'Shall we count how many lamp posts we see on the way to school?'



- Counting out from a larger group to match a number/numeral to 10
- Grouping objects





# 30-50 months – SSM

## How can you help?

- Comparing the length of everyday objects e.g. shoes, belts, pencils, pens, cutlery
- Weighing ingredients when cooking



- Shape hunts- 'Can you find a rectangle in our house?' Can you find something round?'
- Using positional language- 'Your shoes are **on** the stairs.', 'Where is the teddy?'





# 40-60+ months-Number

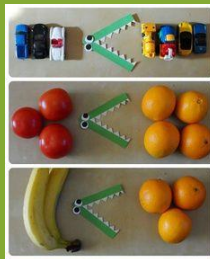
## How can you help?



- Marks meaning numbers



- Counting objects beyond 10. Finding a total by adding 2 groups together and beginning to take away
- Comparing sets – 'fewer, more'



- Estimating how many they can see and then counting to check



- Language of money.



# 40-60+ months-SSM

## How can you help?

- Language of time
  - ‘What day is it today? What will it be tomorrow? What did you do yesterday?’
- Comparing weight, length, capacity, distance



- Using 2d and 3d shape names and describing shapes



- Making and describing patterns



# Everyday activities that can include maths

- Buses, cars, lorries (numbers, big and small)
- Number hunts
- Shape hunts
- Baking (capacity, weighing, amounts)
- Sorting (dollies from teddies, cars from dinosaurs, clothes in the washing pile)
- Counting stairs
- Ipad apps (Bugs and Buttons), and quality TV (cbeebies: NumberJacks, Numtums)
- Counting socks, pairing socks
- Food routines (more, less, how many do we need?, laying the table)
- Shopping (matching objects, shapes, quantities)
- Helping to carry things (heavy and light)

Most important thing

Have fun!