



Maths at Meadow Lane Infants School

3rd May 2012



Before we begin...

Please take a few minutes to think about:

What is the most important thing you would like to take away from tonight?

What will tonight be all about?

- Hopefully addressing the issues we have just spoken about!
- Including:
 - Giving an overview of the maths curriculum in the Early Years and Key Stage One and the kind of maths activities your child will experience in school.
 - Demonstrate how we teach the four operations: addition; subtraction; multiplication; division.
 - Provide information on how you can support your child's mathematical development at home.

Our School Aims for Maths

Each child should be able to think and solve problems mathematically by using the appropriate skills, concepts and knowledge. They should be provided with rich and enjoyable experiences related both to their individual needs and to the wider requirements of society.

In particular we aim for every child to:

- Develop key mathematical skills through a range of teaching experiences.
- To use a range of thinking skills in order to apply their mathematics skills confidently and accurately to solve problems.
- Develop confidence and an enjoyment of mathematics through allowing every child to succeed and develop a positive attitude,
- Experience mathematics in a variety of ways including practical activities, investigations, ICT and some written activities.

Early Years Foundation Stage

- Maths is divided into three main areas:
 - Numbers as Labels for Counting
 - Calculation
 - Shape, Space and Measure
- Children are taught maths in an investigative, creative way that makes links with other areas of learning.
- They learn through directly taught lessons and activities as well as through opportunities that arise through independent play. This could involve singing songs, imaginative play, games, computer programs and stories.
- Children are continually provided with opportunities to use their maths skills to solve problems.



Key Stage One

- In Key Stage One we continue to teach maths in a practical, creative and investigative way, making links, where possible with other subject areas.
- The mathematics curriculum is divided into five main areas:
 - Number
 - Calculation
 - Shape, space and measure
 - Data Handling
 - Problem Solving.
- As children progress through Key Stage One written methods are increasingly taught alongside practical maths. Children are also encouraged to mental strategies.



Maths Lessons

- Children learn maths everyday in a variety of ways. They may be given opportunities to work independently, co-operate in small groups or as a whole class.
- Maths lessons are planned so that every child is able to succeed regardless of their previous experiences or abilities.
 - Children who are finding a concept difficult may have learning presented in a different way or have more support to solve a problem.
 - Children who have mastered are given activities to extend their learning. This may be through problem solving, or looking at a problem in a different way, not necessarily through bigger numbers.

Maths Lessons

Mental and Oral Starter

- A short interactive activity with a focus on mental maths or quick recall of learned facts.
- Could be related to any of the areas of learning.

Main Teaching Activities

- Whole class introduction to the topic.
- Followed by group, paired or independent work.

Plenary

- Can be a reflection on key learning and an opportunity to address any problems.
- A chance to celebrate learning and for self assessment.

Problem Solving

- Problem solving is a key aspect of mathematical understanding and an integral part of teaching across school.
- Using, applying and talking about what they have learned is key to embedding and extending children's mathematical understanding.
- This is also something that you can support at home.

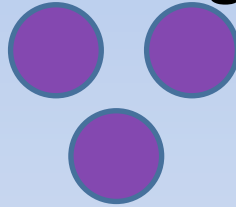
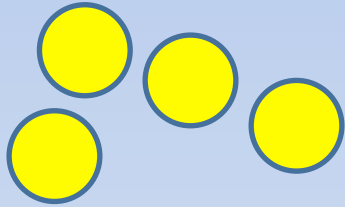


How we Teach Calculations

- The way we teach calculation in primary school today has changed since any of us were at school.
- The next ten to fifteen minutes will be an overview of how we teach the four operations.
- For more detailed information please look at our Calculations Policy. This is available on the website.

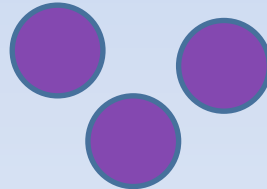
Addition

- Begins with the understanding that addition is the combining of two groups.



$$4 + 3 = 7$$

- Eventually one of the groups is covered and only the second group is counted

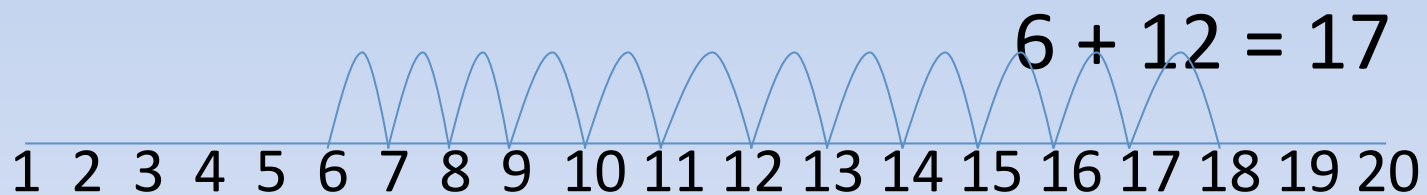


$$4 + 3 = 7$$

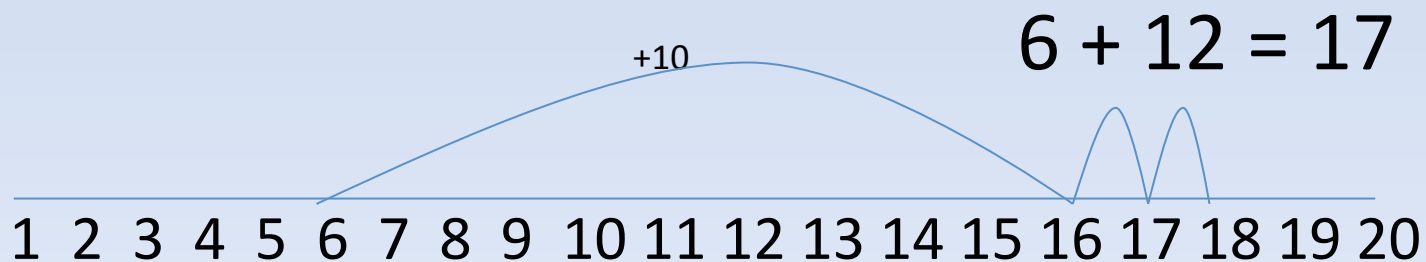
- Once a child understands this concept they can move onto working out an addition mentally by putting the biggest number in their head and counting on.

Addition

- We then begin to look at addition using a number line. Firstly by counting in ones...



- Then by counting on in tens and ones...

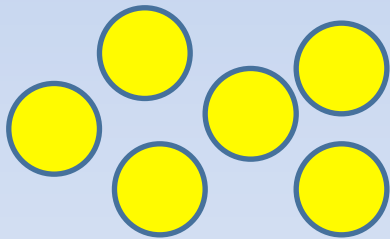


Addition

- We next move onto using a hundred square. Counting on in ones from the biggest numbers, and then tens and ones.
- We then look at using a blank number line to support addition.

Subtraction

- Begins with the understanding that subtraction means to practically take away real objects from a group.



If I have 6 counters and I take away 2 how many will I have left?

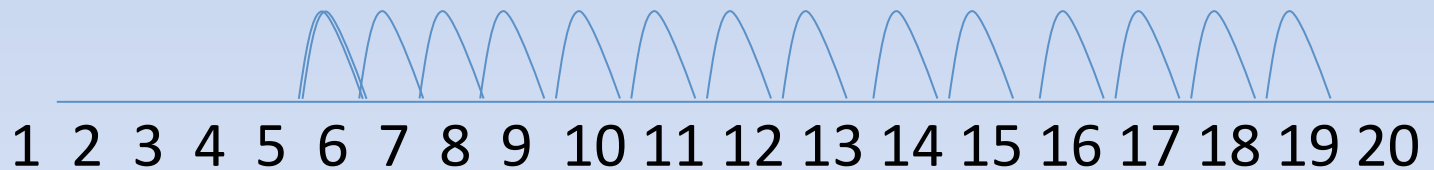
$$6 - 2 = 4$$

- Children are then taught to take away by putting the first number in their head and counting back on their fingers.
 - Prior to this children will have been given lots of practise counting backwards.

Subtraction

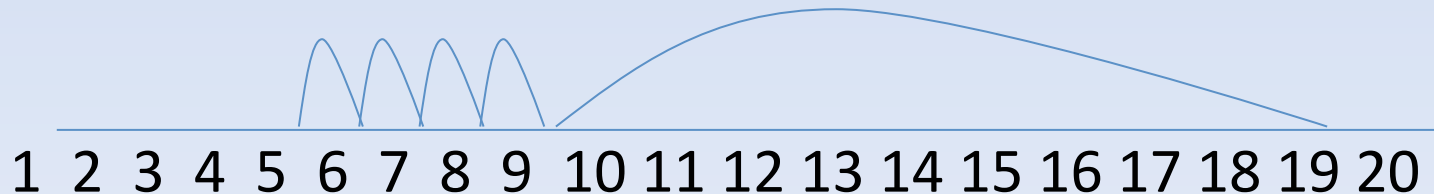
- We then begin to look at subtracting using a number line. Firstly by counting in ones...

$$19 - 14 =$$



- And then in tens and ones

$$19 - 14 =$$



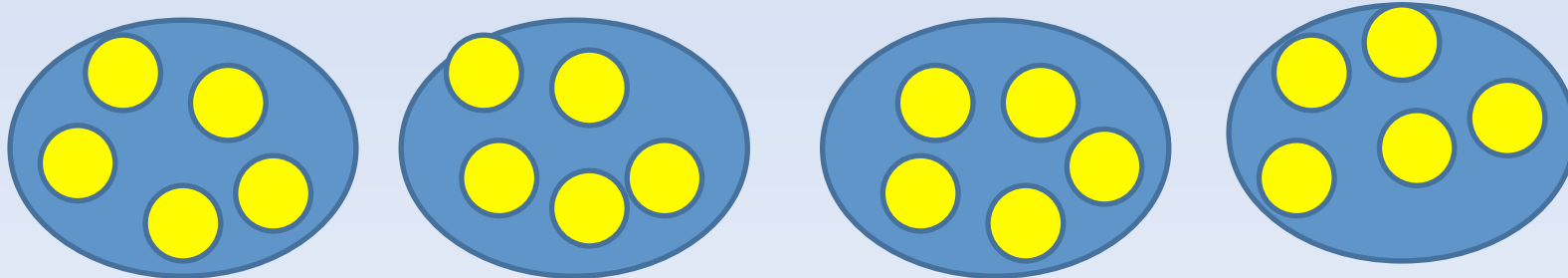
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Multiplication

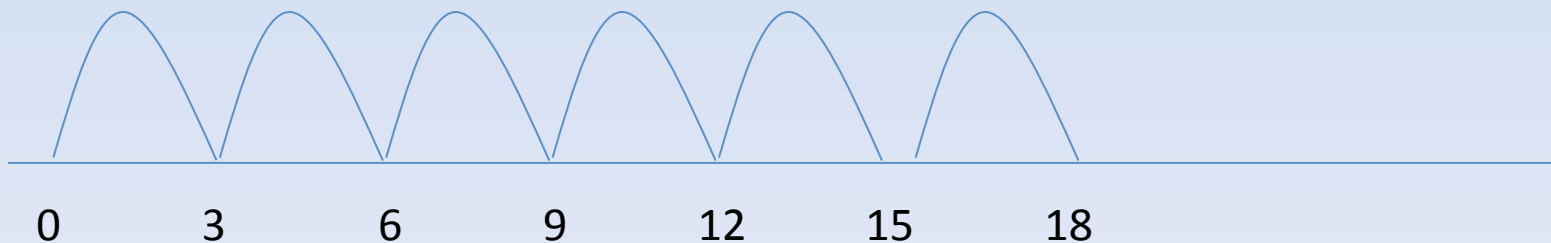
- We begin by counting in 2s, 5s and 10s. Eventually children will recognise multiples of these numbers.
- Children are taught to solve multiplication problems by grouping numbers.

$$4 \times 5 = 20$$



Multiplication

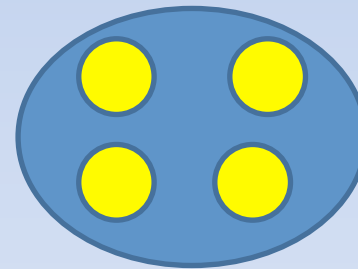
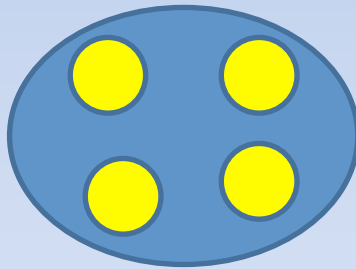
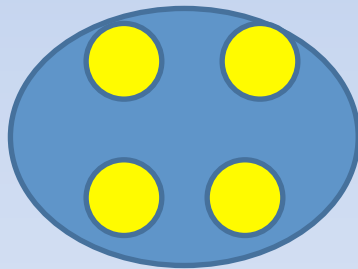
- Next the children begin to multiply by counting on.
- For example to work out 6×3 the children will count on in threes 6 times.
- This can be supported by a number line.



Division

- Children are taught to share objects equally in practical situations. They are then taught to record this using arrays.

$$12 \div 3 = 4$$



- As with multiplication they then begin to use a number line to support division.

