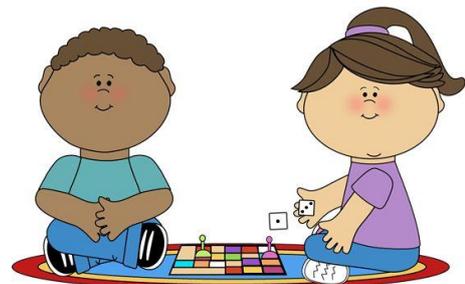


*As the roots spread so the tree grows*

# Alwyn Infant School

## Maths Afternoon Booklet

*(October 2017)*



## Early Years Foundation Stage

Reception children follow 'Early Years Foundation Stage' standards of the National Curriculum. Mathematics is separated into 2 sections in the framework, namely 'Number' and 'Shape, Space and Measures.' Children participate in practical activities relating to these sections.

Number focuses on counting, and recognising the numbers from 1 to 20. Children have opportunities to put numbers in order and say which number is one more or one less. Simple calculating is part of Number, and children use objects to add and subtract 1-digit numbers, and to count on or back to find an answer. Problem solving is included in Number, and children have opportunities to double, halve and share in practical activities.

In Shape, space and measures, children talk about size, weight, capacity, position, distance, time and money, all using everyday language. Using quantities and objects, they make comparisons and solve problems. They recognise, create and describe patterns and begin to use mathematical language to describe everyday objects.

The Framework for the Early Years Foundation Stage says that children should be provided with opportunities for:

- *'playing and exploring'* where they *'investigate and experience things and have a go'*
- *'active learning'* where they have opportunities to *'concentrate, encounter difficulties and enjoy achievements.'*
- *'creating and thinking critically'* where children *'develop their own ideas, make links between ideas, and develop strategies for doing things.'*

At Alwyn, Reception children's daily experiences are full of problem solving opportunities and numbers. Children have a natural curiosity to resolve difficulties, use numbers and find out about them. Whether sharing out fruit at snack time, counting to see if there is enough room for them to join in an activity, cooking, building with blocks or singing number rhymes, they are involved in not just counting, but developing understanding about how numbers work. Teachers and teaching assistants make time to talk with children, using a rich mathematical vocabulary as they intervene in play, as part of these daily activities. They ask children questions, as well as engaging in discussion with them during mathematical activities, helping them to organise their ideas and explain what they have done. This also allows teachers to build on the concepts that children understand correctly, and to amend any misunderstandings.

Children's mathematical development is enriched by a well planned and carefully resourced learning environment, outdoors as well as indoors. We aim to offer experiences which are relevant to children's prior experiences and embedded in real life activities, such as shop role play areas.

Whilst activities are specifically planned to develop children's understanding in these areas it is important to remember that children's learning, like life, is not compartmentalised like this and many activities offer opportunities to develop all areas of mathematics and can be found in all areas of the learning environment.

## Key Stage 1

Year 1 and Year 2 children are following The National Curriculum in England, which is separated into sections that are discussed below. Using and Applying is not a separate section, but is incorporated into all mathematical learning.

### Using and Applying

Within each section of mathematics, children practise applying what they have learnt to simple problems. Children solve problems in a variety of real-life and practical contexts, such as using money to pay or give change. They use mathematical vocabulary to discuss their methods and solutions. By Year 2, where appropriate, they will record solutions to problems by drawing pictures, mathematical objects or writing number sentences.

For example, they represent the number story *'Eleven people are on a bus and three get off. There are eight people left on the bus.'* by the number sentence  $11 - 3 = 8$ .

Children describe patterns and relationships involving shapes or numbers. For example, they apply known facts to work out missing number problems. If they know that  $2 + 7 = 9$ , they can work out the answers to these missing box problems:

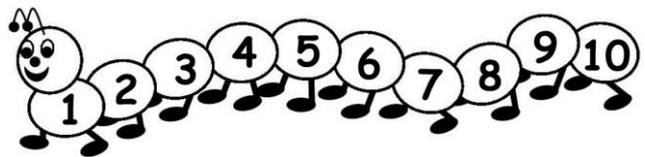
$$9 - 2 = \square \quad \square + 70 = 90 \quad 90 = 70 - \square \quad 9 = 7 + \square$$

These are just a few examples of the sorts of problems that children could be asked to solve. Further examples are given in each of the sections.

### Number and Place Value

Throughout Years 1 & 2, children learn and develop their counting skills, at their appropriate level, in a variety of ways. These include:

- Counting a set of objects or sounds or actions
- Counting in 1s, up to 100
- Counting on and back in steps of 1s, 2s, 3s, 5s, or 10s
- Knowing 1 more/less or 10 more/less than a given number



It is very important that the children have regular repetition of counting, as they are key skills which are used later on with calculations. For example, if your child can count on or back in steps of 10 confidently, then they can work out calculations such as  $30+20=50$  and  $70-40=30$ . If they can count on from different numbers (not always starting at 0 or 1), then they can use counting on to add. If they can count backwards, they can use counting back to subtract.

Place Value refers to the value of the digits in numbers. Children learn that the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 are used to write numbers. They learn that there are 1-digit numbers, such as 3 and 5, 2-digit numbers, such as 20 and 18, and 3-digit numbers such as 105 and 216. In Year 1 children have lots of opportunities to make numbers out of tens and ones/units resources. For example, they will make 43 out of four tens piece and 3 ones. In Year 2, we build on this and children will learn how to partition 2-digit numbers:

$$43 = 40 + 3$$

$$43 = 20 + 23$$

$$43 = 30 + 13$$

An understanding of number is demonstrated in the following activities:

- Reading and writing numbers, up to 100.
- Ordering numbers & positioning numbers correctly on a number line.
- Using the correct vocabulary when comparing numbers & learning the symbols = (equal to/same as), < (less than) and > (greater/more than).
- Estimating amounts; this is a good judge of a child's understanding of number – can they make a sensible guess?
- Understanding ordinal numbers e.g. what colour is the third bead?
- Understanding how many tens and units there are in 2-digit numbers.
- Understanding the value of 1 & 2 digit numbers, and that 0 is a place holder for multiples of 10.

In Year 1, children learn the spellings of number words, from zero to twenty, while in Year 2, they learn how to spell all number words up to one hundred.

Number word spellings:

one two three four five six seven eight nine ten eleven twelve thirteen  
fourteen fifteen sixteen seventeen eighteen nineteen twenty thirty forty  
fifty sixty seventy eighty ninety one hundred

**Calculation**

The 4 operations that the children learn are addition, subtraction, multiplication and division. The curriculum places an emphasis on the understanding that addition is the opposite of subtraction, and multiplication is the opposite of division. It is important that the children understand the vocabulary for each operation, and what each sign (+, -, x, ÷, =) means.



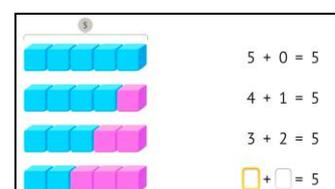
Vocabulary for each sign:

<b>+</b>	<b>plus</b>	<b>put (groups) together</b>	<b>add</b>	<b>addition</b>	<b>sum</b>
<b>-</b>	<b>minus</b>	<b>take away</b>	<b>subtract</b>	<b>subtraction</b>	<b>difference</b>
<b>x</b>	<b>times</b>	<b>repeated addition</b>	<b>lots/groups of (4 groups of 3)</b>	<b>multiply</b>	<b>multiplication</b>
<b>÷</b>	<b>divide</b>	<b>repeated subtraction</b>	<b>sharing</b>	<b>grouping</b>	<b>division</b>
<b>=</b>	<b>equals</b>	<b>the same as</b>	<b>balance</b>		

Addition and Subtraction:

Children understand addition as combining 2 or more groups. They begin by making groups using counters. They progress to counting on to add, rather than counting from 1. For example, for 4 + 3, they would say 4, 5, 6, 7. They learn that addition can be done in any order and then use this to rearrange number sentences such as re-ordering 2 + 17 as 17 + 2 in order to start with the bigger number. They use a variety of resources to add larger numbers, including mathematical equipment made up of tens and ones pieces, number lines, 100 squares and their own drawings. They apply addition to simple problems, such as *I have 8 marbles and my friend has 3 more. How many marbles does my friend have?*

Children learn addition facts to support them further in calculation. From early on, they would have had opportunities to split numbers into sets, for example putting some teddies in one hoop, and the rest in another hoop. This is then developed further into learning all



the combinations of numbers that make 5. These are called bonds of 5:

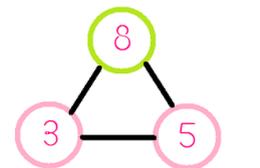
$5 + 0 = 5$        $4 + 1 = 5$        $3 + 2 = 5$        $2 + 3 = 5$        $1 + 4 = 5$        $0 + 5 = 5$

They will find these combinations using a variety of resources. Then they practise remembering them, using different games. Children are expected to know all the addition facts for all numbers up to 20, and addition facts for multiples of 10 in order to make 100 ( $20 + 80 = 100$ ,  $40 + 60 = 100$ ).

Children begin to understand subtraction as ‘taking away’. They represent this by making groups of counters or objects and then taking some away, recognising that the number of objects remaining is the answer. They then begin to rely less on manipulating practical resources and use strategies such as counting back on a number line.

Children build on their understanding of subtraction to interpret  $14 - 9$  as finding the difference between 14 and 9 or: ‘How many more must I add to 9 to get 14?’ They begin by making 2 groups using counters, and saying how many more the larger group has. They then use a counting-up strategy and record the process as steps on a number line. They begin to recognise that subtraction and addition ‘undo each other.’ Children apply their knowledge to problems; for example, they work out how many biscuits are left on a plate of 19 biscuits if 5 are eaten.

Once children know that addition is the opposite of subtraction, they can use the addition facts (bonds) they have learnt to subtract. Children will learn the ‘fact families’ of different numbers, realising that if they know  $5 + 3 = 8$ , they also know the answer to  $8 - 3$ .



$$\underline{5} + \underline{3} = \underline{8}$$

$$\underline{3} + \underline{5} = \underline{8}$$

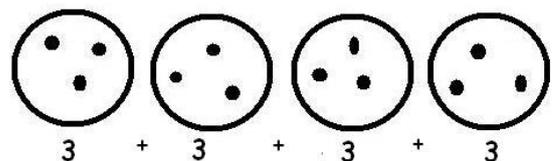
$$\underline{8} - \underline{5} = \underline{3}$$

$$\underline{8} - \underline{3} = \underline{5}$$

Children record addition and subtraction number sentences using the operation signs +, - and =. They will learn to generate equivalent statements, for example  $7 = 6 + 1 = 8 - 1$ .

*Multiplication and division:*

Children begin to understand multiplication as adding the same number lots of times (repeated addition). They will use practical resources to make groups of the same number and then represent this in an addition number sentence, for example  $3 + 3 + 3 + 3 = 12$ .



Children learn that multiplication is a shorter form of repeated addition, and that it can be represented as an array. They would then learn to write  $3 \times 4 = 12$ , or  $4 \times 3 = 12$ , realising that they would get the same answer for  $3 \times 4$  and for  $4 \times 3$ .



Next, children apply their knowledge to practical tasks that involve sharing into equal groups. For example, solving ‘How many pencils are on each table if there are 4 tables and 12 pencils?’ using concrete objects such as pencils. They then learn to associate statements such as ‘You have two sweets but I have four times as many’ with the calculation  $2 \times 4$ . They recognise that questions such as: ‘How many wheels are there altogether on three bicycles?’ involves multiplication.

Early experiences with doubling numbers allow children to apply this knowledge to addition calculations. For example, using near doubles to calculate  $6 + 7$ , and their knowledge of  $5 + 5 = 10$  to calculate  $50 + 50 = 100$ . From regular counting on in steps of 2s, 5s and 10s, children in Year 2 become familiar and confident with knowing the relevant times tables, by heart. They will learn that multiplication can be done in any order, and recognise that if  $5 \times 3 = 15$ , then  $3 \times 5 = 15$ , and link their knowledge of counting in steps of five to find the answer or to check.

Children understand division as sharing equally, or as forming groups of the same size through repeated subtraction. They interpret  $8 \div 2$  as: 'How many objects will each person have if 8 objects are shared equally between 2 people?' and as: 'How many groups of 2 can be made from 8 objects?' Children recognise that division can result in remainders and interpret these in the context of the problem. For example, when they share 13 biscuits between five children, they know that they each have two biscuits and there are three biscuits left in the packet.

They use repeated subtraction on number lines to divide, and then develop their recording of division problems into number sentences such as  $8 \div 2 = 4$ . Children use arrays to divide small groups of numbers, which helps them to see that division is the opposite of multiplication. They then use this knowledge to complete missing number 'fact family' problems. For example, they would use the fact  $2 \times 3 = 6$  to complete missing number problems such as  $3 \times \square = 6$  and  $6 \div 2 = \bigcirc$ . Once Year 2 children know their times tables, they apply this to learn the corresponding division facts.

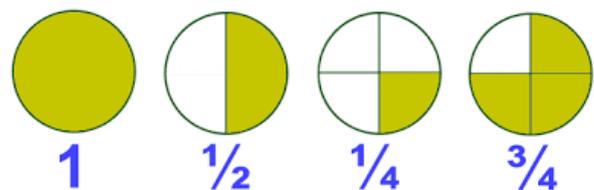
$2 \times 3 = 6$
$3 \times 2 = 6$
$6 \div 2 = 3$
$6 \div 3 = 2$

Lots of problem solving opportunities are provided and children will begin to generate number sentences to match problems using the  $\times$  and  $\div$  signs.

## Fractions

Children begin learning about fractions of lengths/shapes/objects, and then move onto finding fractions of numbers.

In Year 1, children fold shapes into halves and quarters and begin to name the fractions using the terms half and quarter. To show half or a quarter, the children might be asked to colour in half of a shape or to point to all the shapes that have been quartered. They will then progress to finding half of a number. They would find half of a number by counting out a number of counters and then sharing the counters out equally onto a shape that has been halved. Next, they move onto finding a quarter of a number, again by sharing out counters or objects.



In Year 2, children progress onto writing fractions as numbers, for example writing  $\frac{1}{2}$  for half, or  $\frac{1}{4}$  for quarter. They learn about equivalence, showing that 2 quarters of a shape is the same as half of a shape.

Children practise counting in halves, quarters and thirds, recognising that fractions are between whole numbers. They would begin to do this by looking at pictures or number lines showing the fractions. For counting in halves, they would say: *1 half, 1, 1 and a half, 2, 2 and a*

*half, 3, 3 and a half, 4, 4 and a half, 5, 5 and a half, 6, 6 and a half, 7.* In Year 2 children only need to count in fractions as far as 10.

Children make connections with division when finding half of a number, and learn that halving is the same as dividing or sharing into 2 equal groups. They will apply their knowledge to simple problems such as *'I have 12 sweets. I give half away. How many do I have left?'*

## Measures

Children learn about different measures by comparing, describing and solving practical problems. They then begin to record measurements for:

- Lengths and heights
- Mass or weight
- Capacity or volume
- Temperature



The terms mass and weight, and capacity and volume are used interchangeably in Key Stage 1.

In Year 1 the children are asked to decide which of two or more lengths is greater or less by making direct comparisons. They compare two masses using a balance scale and compare two quantities of liquid using identical containers. Children should recognise the need to use uniform units when measuring objects. They are asked to suggest suitable standard or uniform non-standard units and measuring equipment to measure a length, weight or capacity. They might use cubes or a metre stick to measure lengths, use identical wooden bricks or plastic cubes or 100-gram blocks to measure weight, and use a beaker or scoop to measure capacity. They might say that the container holds '6 and a bit scoops.' Children begin to make more accurate estimates, such as 'The room is about three and a half metre sticks long' or 'The bottle holds about five and a half cups of water.' They record their measures using pictures, symbols and/or numbers.

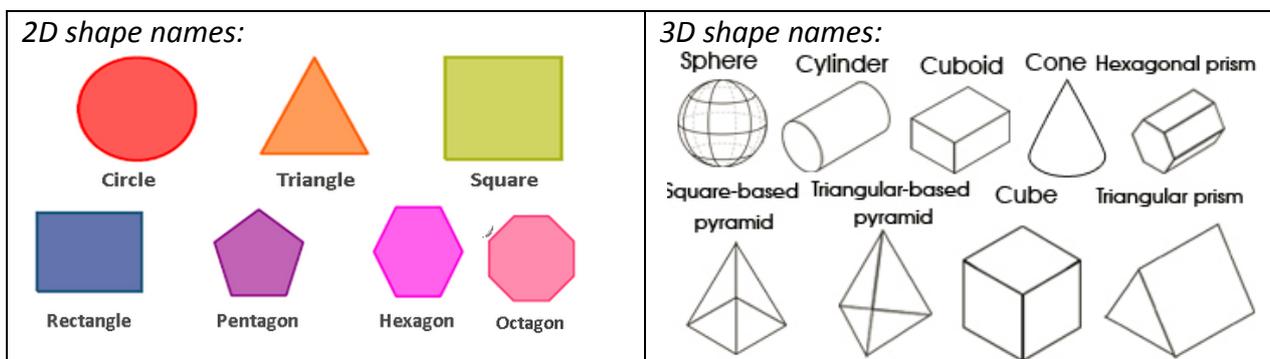
In Year 2, children progress to reading numbered divisions on a scale and interpret unnumbered divisions between them. They use standard units to measure accurately to the nearest division. Children are encouraged to estimate and *then* measure. They begin to make connections between related standard units, for example identifying objects estimated as being less than 1kg and then weighing the objects to determine if their predictions were correct.

Time and money are also included in 'Measurement.' For the teaching of time, children in Year 1 would begin by ordering familiar events, for example sequencing the days of the week, or events in a well-known story. They may describe and place events in time using time-related vocabulary, such as 'I play with my friends *after* school and have dinner *before* I go to bed at 7 o'clock'. They learn that time is measured in hours, minutes and seconds, and tell the time to the hour and half past the hour, on analogue clocks. In Year 2, children progress to telling time and writing time to quarter past and quarter to the hour, also on analogue clocks.

An understanding of money is developed in Year 1 by looking at different coins and notes. Children learn to recognise them and understand that they have different values. In Year 2, children begin to use the pound (£) and pence (p) symbols, combine coins to make different amounts of money and use coins/notes to solve simple problems.

## Geometry (Shape, Position & Direction)

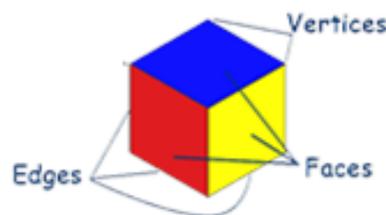
Children are expected to describe, name and sort 2D and 3D shapes. They learn that 2D shapes cannot be picked up, while 3D shapes can. They learn the names of common shapes and their properties.



They learn to describe shapes using the terms sides, edges, vertices and faces, and play a variety of games to remember the names of shapes. For example, 'What am I? I have 5 vertices, 8 edges and 5 faces. One of my faces is square shaped, and the others are triangular shaped. I can be picked up.' (A Square based pyramid). Another game is 'Shape Reveal' played on the computer, where part of the shape is shown and children guess which shape it could be.

Children learn to count the number of sides of 2D shapes to name them, and they identify the line of symmetry in shapes. They learn the meaning of the following vocabulary for 3D shapes:

- Faces: the flat or curved parts of a shape
- Edges: the sides of the faces, where 2 faces meet
- Vertices: the 'points' where 2 or more edges meet



Children learn positional vocabulary, such as 'top, middle, above, between' and learn about making turns. They will have opportunities to instruct each other and programmable floor robots by giving a set of directions using vocabulary such as 'left, right, forwards, backwards, whole turn, half turn, quarter turn, three-quarter turn.' In Year 2, they will further develop this language to include 'clockwise and anti-clockwise' turns.

## Statistics (Data Handling)

In our everyday lives we are constantly organising and interpreting data, for example:

- The school cook needs to work out how many dinners to cook, she needs to look at the dinner slips and work out the quantity of food to be prepared and cooked on a particular day
- The school secretary needs to order the correct number of books so that each child in the school will have the books that they need



Children learn to sort, classify and organise information into simple tables and graphs in order to answer simple questions, such as 'How many children are having packed lunch today?'

While Statistics is not part of the Year 1 curriculum, Year 1 children will be informally introduced to simple tables and graphs in class by together making a tally to show how many children are in school, or similar activities. In Year 2, we build on this and children are taught how to collect information in a tally chart, and then sort this information onto pictograms, block graphs and into simple tables.

A lot of emphasis is focused on interpreting the information, using and applying their numeracy skills and varying the vocabulary used. For example, *twice as many children preferred orange juice than any other drink. Or how many fewer children preferred apple juice than blackcurrant juice?*

## Homework

During Year 1 and 2 the children are given differentiated homework once a week from their maths groups. This is intended to review and practise the skills learnt that week and in doing so allows those at home to find out what they have been learning. Over time it should provide you at home with a more comprehensive insight into what is being taught at school and to develop a clearer appreciation of your children's strengths and areas for development.



Feedback is always welcome. If your child seems to be finding the work particularly easy or difficult, put a note on your child's homework or speak to the teacher. Please look out for the Y1/Y2 Parent Information Sheets which give an overview of the maths topics that will be covered each term. These are handed out near the start of each full term.

## Maths at home

This is not intended to mean other work in a formal sense such as "Let's sit down now and do our daily maths," but more informally in 'How do we use maths in daily life?' and 'How can I help my child's understanding of how maths fits into the world?'

Lots of board games involve some maths, even if it is just rolling a dice and counting on a certain number of spaces. A pack of cards is loaded with numbers and possibilities for games.

As well as playing games it is equally important to make maths part of everyday. For example, *'I gave you 10 grapes and you have 4 left. How many have you eaten? We will have dinner in one hour. What time will that be? Share these six pencils between the two of you. How many are you each going to have?'*

Find numbers in the environment. Count things on the way to school such as trees, dogs or red front doors. Name a shape and try to find as many as you can. Estimate a distance. *'How many steps do you think we will take before the next lamp post?'* House numbers are great for counting in 2s and for odd and even numbers. Smartie tubes, cereal packets, watches, book pages, to name a few, all have numbers on them.

Children should be encouraged to handle and understand money. A small amount of pocket money and shopping trips may let them see what money is for and why they need to learn about it. **Remember to: Have fun!**

**Year 1 Maths 'I cans' National Curriculum Requirements**

<b>Number and Place Value</b>	<b>Fractions</b>
I can count forwards in 1s, to 100.	I can show that half is where we split something into 2 equal parts.
I can count backwards in 1s, from 100.	I can spot, find and name half of an object and a shape.
I can read numbers up to 100.	I can spot, find and name half of an even number.
I can write numbers up to 100.	I can spot, find and name a quarter of an object and a shape.
I can count in 2s from zero.	I can spot, find and name a quarter of an amount.
I can count in 5s from zero.	<b>Measures</b>
I can count in 10s from zero.	I can compare and describe lengths and heights.
I can name 1 more than a number.	I can compare and describe mass or weight.
I can name 1 less than a number.	I can compare and describe capacity and volume.
I can count objects reliably.	I can compare time using the language quicker, slower, earlier and later.
I can represent (show) a number.	I can solve simple problems using measurements
I can compare numbers.	I can measure and record lengths and heights.
I can read numbers from 1 to 20 in words.	I can measure and record mass or weight.
I can write numbers from 1 to 20 in words.	I can measure capacity and volume.
<b>Calculation – Addition and Subtraction</b>	I can read simple scales that show measurements
I can read, write and explain number sentences that use the +, - and = signs.	I can measure time in hours, minutes and seconds and start to record it.
I can show an understanding of the = sign.	I can recognise and know the value of coins and notes.
I can remember my addition number bonds to 10.	I can sequence events in chronological order using words such as before, after, today and tomorrow.
I can remember my subtraction number bonds to 10.	I can use the words for the days of the week and months; and the word 'year.'
I can remember my addition number bonds to 20.	I can tell o'clock time.
I can remember my subtraction number bonds to 20.	<b>Geometry – Properties of Shapes</b>
I can add 1 digit numbers (up to 20) by counting all.	I can recognise and name common 2D shapes including triangle, circle, square and triangle.
I can add 1 digit numbers (up to 20) by counting on.	I can recognise and name common 3D shapes including cuboids, cubes, pyramids and spheres.
I can subtract 1 digit numbers.	<b>Geometry – Position and Direction</b>
I can add 2 digit numbers up to 20.	I can describe position and direction, using vocabulary such as top and bottom, in front, above, between, around.
I can subtract 2 digit numbers (up to 20).	I can describe position, direction, and movement, using vocabulary such as forwards and backwards, left and right.
I can solve addition problems.	I can describe position, direction and movement including whole turns and 1/2 turns.
I can solve subtraction problems.	I can describe position, direction and movement including 1/4 and 3/4 turns.
<b>Calculation – Multiplication and Division</b>	
I can multiply using concrete resources, pictures and arrays.	
I can divide using concrete resources, pictures and arrays.	

**Year 2 Maths 'I cans' National Curriculum Requirements**

<b>Number and Place Value</b>	<b>Calculation – Addition and Subtraction</b>	<b>Calculation – Multiplication and Division</b>
I can count in multiples of 10 from any number, forwards and backwards.	I can solve problems using my maths knowledge.	I can recall and use multiplication facts for the 5 times table.
I can identify 10 more or 10 less than any given number	I can partition a number to add using number bonds.	I can recall multiplication facts for the 10 times table.
I can count forwards in 2s, 3s and 5s, starting at 0.	I can add and subtract 2 digit numbers and 1 or 10.	I can recall and use division facts for 2, 5 and 10 times tables.
I can count backwards in 2s, 3s and 5s.	I can add and subtract 2, 2 digit numbers.	I can recognise odd and even numbers.
I can count on in 10s from any number, including crossing boundaries into 100s.	I can add 2 or 3 single digit numbers.	I can work out calculations and record them using the correct symbols.
I can count back in 10s from any number, including crossing boundaries from 100s.	I can solve missing number problems using inverse.	I can link doubling and halving to multiplying and dividing.
I can understand the value of each digit in a 2-digit number (tens and ones)	I can use inverse to check calculations.	I know that multiplication can be done in any order but division cannot.
I can partition and combine tens and ones in any 2-digit number.	I know my number facts to 20.	I can solve problems using multiplication.
I can position numbers on a number line	I can use my number facts to 20.	I can solve problems using division.
I can estimate what the missing number is on a number line.	I can use my facts to 10 to add/subtract multiples of 10 to 100.	<b>Fractions</b>
I can recognise odd and even numbers up to 100	I can subtract/add two 1-digit numbers.	I can find and name fractions of shapes ( $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{2}{4}$ , $\frac{3}{4}$ ).
I can identify and show numbers in different ways	I can add a 2-digit number and a 1-digit number in my head.	I can find and name fractions of objects and quantities ( $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{2}{4}$ , $\frac{3}{4}$ ).
I can compare and order numbers from 0 to 100 using $<$ , $>$ and $=$ signs.	I can subtract a 1-digit number from a 2-digit number.	I can find, name and write fractions of length ( $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{2}{4}$ , $\frac{3}{4}$ ).
I can read and write numbers up to 100 in numerals.	I can add 2-digit numbers without bridging.	I can write simple fractions.
I can read and write numbers up to 100 in words.	I can subtract two 2-digit numbers without bridging.	I know half is the same as $\frac{2}{4}$ .
I can use place value to solve problems.	I can add 3 single digit numbers in my head.	I can solve problems with fractions.
I can use number facts to solve problems.	I can subtract 3 single digit numbers in my head.	I can count in halves, quarters and thirds, recognising that fractions are numbers between whole numbers.
	I can add/subtract 10 from a 2-digit number.	
	I can add a 2-digit number and a tens number in my head.	
	I know that addition can be done in any	

	order but subtraction cannot.	
	I can use inverse to create number families.	
	I can solve missing number problems using inverse.	
	I can use inverse to check calculations.	
<b>Measures</b>	<b>Geometry (Properties of shapes)</b>	<b>Statistics</b>
I can choose appropriate units of measure to estimate length, height, mass, capacity and temperature.	I can name and describe 2D shapes.	I can present data in simple tally charts and tables.
I can compare and order measures and record using $<$ , $>$ , and $=$ .	I can identify and draw a line of symmetry.	I can interpret simple tally charts and tables.
I can recognise and write amounts using £ and p.	I can name and describe 3D shapes.	I can present data in simple pictograms and block graphs.
I can choose coins to make a set amount of money.	I can say which 2D shapes are on a 3D shape.	I can interpret simple pictograms and block graphs.
I can find different combinations of coins that equal the same amounts.	I can compare and sort shapes.	I can ask and answer simple questions by collecting data and sorting it.
I can solve simple money problems.	<b>Geometry (Position and Direction)</b>	I can ask and answer questions by adding or subtracting data.
I can solve money problems with change.	I can order and arrange shapes in patterns and sequences.	
I can order events and talk about it using the correct language.	I can use mathematical language to describe position, direction and movement including movement in a straight line.	
I can tell the time to 5 minutes and draw hands on a clock face to show these times.	I can describe position, direction and movement including $3/4$ turns.	
I can write the time to 5 minutes and draw hands on a clock face to show these times.	I can use directional language to instruct a program.	
I can use time language and know how they relate to each other.	I can recognise the % sign and understand it means 'number of parts per 100.'	
I can solve simple problems using measures.		

### Useful Numeracy Websites

ICT games

<http://www.ictgames.com/>

BBC Schools

[http://www.bbc.co.uk/schools/4\\_11/numeracy.shtml](http://www.bbc.co.uk/schools/4_11/numeracy.shtml)

Primary maths – trials, available to purchase

<http://www.primarygames.co.uk/>

Channel 4 Learning

<http://www.channel4learning.com/sites/puzzlemaths/>

Crickweb

<http://www.crickweb.co.uk/ks1numeracy.html>

Crickweb – suitable for Foundation Stage children

<http://www.crickweb.co.uk/Early-Years.html>

New National Curriculum:

<https://www.gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study/national-curriculum-in-england-mathematics-programmes-of-study#key-stage-1--years-1-and-2>