Maths Medium Term Planning – Mixed Age

Year Groups: Years 1 and EYFS Term: Autumn

	Maths Topic	Year 1	Reception	
				Session Inputs EYFS
Week 1 Week 2	Number & Place Value	• To know that one ten is the same as ten ones • To count in tens and combine with ones to find a total and make with place value cards • Adding a multiple of ten gives the next multiple of ten, subtracting a multiple of ten gives the previous multiple of ten.	• The oneness of one • The twoness of two	• Watch numberblocks one • Formation of number one • What is one? what is not one? • Finding one – numicon piece, cuisennaire, 1 pencil etc – how many ways can we show one? • Watch numberblocks two and formation • Matching socks into pairs – a pair is two • What is two and what is not two? One and one more is two • How many ways can we make two? (numicon piece 2 including a 1 piece and a 1 piece is the same as 2, cuisennaire etc and 2 pencils etc)
Week 3 Week 4	Addition	• I know one more than a given number • I know numbers to ten can be partitioned in different ways • I f we know one part of a partitioned number we can find the other part • To know addition is the combining of two groups in any order, including zero	• The threeness of three • The fourness of four	• Watch numberblocks three and formation • How many ways can we make three? (numicon and cuissenaire and objects) • Combinations of three using ladybirds or dominoes – is it 3? Is it not 3? • Three is a pair and one more • Watch numberblocks four and formation

				• How many ways can we make four? (numicon and cuissenaire and objects – ensuring the children know that a 3 piece and 1 piece also same as the four etc) • Combinations with ladybirds / dominoes – is it 4? Is it not 4? What is it? • Four is two pairs, 2 and 2 more or 3 and 1 more
Week 5	Geometry 2D Shape	• To know the names of 2D shapes and recognise in different orientations • To know the properties of 2D shapes • To know why a representation is **not** a given shape	• To introduce the shapes – circle, square and triangle and explore	• Sort shapes – by colour, by size, by shape (it is not important to remember properties of them just talk about what they see) • Shape hunt around school – use own shapes to check • Making shapes using band board, string, straws – am I correct, is this a triangle? How do I know?
Week 6 Week 7	Subtraction	• To know one less than a given number • To know that subtraction means you end up with less than you started with • To know that subtraction means 'taking away/ counting back • To know that subtraction can not be done in any order (is not commutative)	• To fiveness of five • The sixness of six (three pairs)	• Watch numberblocks five and formation • How many ways can we make five? (numicon and cuissenaire and objects) • Combinations of five using ladybirds or dominoes – is it 5? Is it not 5? Or using fingers up and fingers down • Five is two pairs and one more • Watch number blocks six and practice formations • What is six? – what is not six? Recognition of group size

				• Finding six – show numicon piece and cuisennaire piece – how many other sixes can we find/make? • Ways to make six – ladybird spots, dominoes etc
Week 8	Fractions	• To know that ½ is two equal parts – shape, length, number • To recognise equal and unequal – length, shape and number	• To sort a set of objects by colour or size	• Sort a set of bears into 2 sets (2 colours only) – ask the children. Then use a set with more than two colours and sort into 2 sets (e.g Red and not Red) • Sort a set of objects containing many colours into 2 groups – (blue and not blue etc) • Use compare bears and sort into three groups – if they are insistent on only sorting by colour restrict to one colour to end up with 3 sizes • Children decide on sorts into two groups i.e Big and not big
Week 9	Measurement length	• To compare and use language of shorter/ taller, shorter/longer • To use non-standard units to measure length and height and begin to record these	Explore length • Vocab: longer, shorter, longer than, shorter than	• Show two snakes – what can you tell me? Which is shorter which is longer? • Tray of items - ask child to choose two – which is longer? Which is shorter? • Look at Cuisenaire rods – which is longer? • Coloured strips of paper to make paper chains – who can make the longest?
Week 10 Week 11	Multiplication & division	• To know doubles up to 10 + 10 • To know that doubling is 2 equal groups • To count in tens and know that means 7 lots of 10	• To know one more • To know one less • To identify and use vocabulary	• Bus game – how many on the bus? One more gets on – how many now? • Beadstring/ rekenrek to show one more

		• To begin to count in 2s using concrete objects • To begin to share into 2 equal groups	of more or less to compare two sets	• Show a group of objects – find one more • Make a staircase with multilink – how many? Then add one more step • Bus game – how many on the bus? One gets off – how many now? • Songs – five little speckled frogs • Song five little ducks • Show a group of objects, how many? Take one away – find one less • Lots of practical comparisons of sets – which has more? Which has less? How do we know?
Week 12	Measurement Mass	• To compare and use language of heavier than and lighter than • To use balance scales to determine heavier/ lighter • To use non-standard units to 'weigh' items	• To explore heavier and lighter	• In hand pick up a stone/ rock – in other hand pick up a feather – which is light? Which is heavy? • Use bucket scales put one item in each side – which is heavy? Which is light? • Continue to practise using hand to decide heavy and light • Continue to practice using balance to show heavy and light
Week 13	Assessment and revision	• PUMA Assessments	• Maths from stories – revision week	• Read book – Washing line • Read Book – Pete the cat and his four groovy buttons • Read Book – Five little men in a flying saucer • Read book – Six Dinner Sid

ONGOING	Ongoing Reception
• To know the days of the week in order • To know the months of the year in order • To know 1st, 2nd, 3rd etc (ordinal numbers) • To have a concept of how long is a second, a minute, an hour • Measuring temperatures – expose to negative numbers in the winter • What is an odd number? What is an even number? • To write words to represent numbers	• Number songs, counting forwards and back, subitising, counting sets, knowing different colours, knowing different sizes (big, medium, small) recognising and sorting simple 2 d shapes

Maths Medium Term Planning – Mixed Age

Year Groups: Years 1 and EYFS Term: Spring

	Maths Topic	Year 1	Reception	
				Session Inputs EYFS
Week 1 Week 2	Number & Place Value	• To count in multiples of ten • Knowledge of 0-10 number line can be used to estimate the position of multiples of ten on a 0-100 number line • To count in tens and combine with ones to find a total and make with place value cards	• The seveness of seven • The eightness of eight	• Watch number blocks seven and practice formations • What is seven? – what is not seven? Recognition of group size • Finding seven – show numicon piece and cuisennaire piece – how many other sevens can we find/make? • Ways to make seven – ladybird spots, dominoes etc • Watch number blocks eight and practice formations • What is eight? – what is not eight? Recognition of group size • Finding eight – show numicon piece and cuisennaire piece – how many other eights can we find/make? • Ways to make eight – ladybird spots, dominoes etc
Week 3 Week 4	Addition & Subtraction	• To know addition and subtraction facts within twenty • To add and subtract 1 and 2 digit numbers to twenty including zero	• The nineness of nine • The tenness of ten	• Watch number blocks nine and practice formations • What is nine? – what is not nine? Recognition of group size • Finding nine – show numicon piece and cuisennaire piece – how many other nine can we find/make?

				• Ways to make nine – ladybird spots, dominoes etc • Watch number blocks ten and practice formations • What is ten? – what is not ten? Recognition of group size • Finding ten – show numicon piece and cuisennaire piece – how many other tens can we find/make? • Ways to make ten – ladybird spots, dominoes etc
Week 5	Fractions	• To know that ½ is one of two equal parts – length, shape, quantity • To know ¼ is one of four equal parts – length, shape, quantity	• To understand zero represents nothing	• Numberblocks zero • Zero storybook • Use a big picture – how many birds? Cars? Etc – include zero • Formation of zero
Week 6	Statistics	• To represent data in tally charts and pictograms	Explore height • Vocab: taller, shorter, taller than and shorter than	• Make two towers – which is taller, which is shorter? • Show two plants- which is shorter which is taller? • Taller/ shorter game on computer • Taller/ shorter story book
Week 7 Week 8	Multiplication & Division	• To know that 2+2+2+2 is the same as 4 lots of 2 etc – repeat using 5s • To count in fives using concrete apparatus • To know that sharing/ division means that all groups are equal (reinforce odd and even numbers)	• Combining two groups	• Look at one set of objects (dots) and another set of objects and combine – how many altogether • Combining sets using part /part /whole model

Week 9	Measurement: Time	• To use language of earlier or later • To tell the time to the hour and half past on an analogue clock	Events in time • Vocab – now, before, after, later, soon, then, next, yesterday, today, tomorrow	• Read Jasper's Beanstalk • Read Mr Wolf's Week • Talk about the events in the day and order pictures
Week 10	Measurement: Money	• To recognise different coins and notes and know they have different values • To find the total of a set of coins (10, 5,2,1) up to 20pence	• To explore repeating patterns (2 variables, maximum 3)	• Using paint sponges print a repeating two colour/shape pattern in front of children – what do they notice? – what comes next? • I've made a pattern – (leave gaps – what goes in the gap?) • I've made a pattern – is it correct? where has it gone wrong? • Make a pattern using 3 colours/shapes – what do they notice
Week 11 Week 12	Geometry: 3D shape & position and direction	• To describe 3d shapes by number of faces, edges and vertices • To recognise and name 3d shapes • To describe a position including left and right, on top of, in front of, between, forwards and backwards	• To name 2d shapes and talk about corners and sides • Exploring properties of 3d shapes	• Sorting shapes that are the same • Sorting shapes including those in different sizes and orientations • Show shape pictures – how many triangles etc? • Feely bag shape game • Input on shapes that stack • Input on shapes that roll • Sorting shapes according to what they notice • Finding 3d shapes in the environment

ONGOING Year 1	ONGOING RECEPTION
• I know how to tell whether a number is odd or even • To write words to represent numbers • To know clockwise and anti-clockwise • To use arrow card to make two digit numbers and match to dienes	• To form numbers 0-9 • To count reliably up to at least 10 • To recognise numbers to 10 • To know days of the week • Count forwards and backwards to ten from zero.

Maths Medium Term Planning – Mixed Age

Year Groups: Years 1 and EYFS Term: Summer

	Maths Topic	Year 1	Reception	
				Session Inputs EYFS
Week 1 Week 2	Number & Place Value	• Known facts for the numbers within ten can be used to add and subtract multiples of ten by unitising	• Making numbers that go beyond 10	• Watch number blocks • Show numbers beyond ten using full tens frame plus some filled in on next tens frame, bundles of ten straws plus ones, numicon tens and pegs plus more pegs & show place value cards to represent
Week 3 Week 4	Addition & Subtraction	• To know what is meant by difference • To solve one step problems that involve addition and subtraction using concrete objects and pictorial representations • To solve missing number problems such as 7 = ? - 9	• Making numbers that go beyond 10	• Watch number blocks • Show numbers beyond ten using full tens frame plus some filled in on next tens frame, bundles of ten straws plus ones, numicon tens and pegs plus more pegs & show place value cards to represent
Week 5	Fractions	• To be able to find half or quarter of a given amount	• Problem solving with legs	• Book – One is a snail, ten is a crab • Combining legs to make totals – a man and a snail is equal to three etc • How many different ways can I make 10?
Week 6 Week 7	Measurement: money & capacity	• To pay and give change up to 20pence • To know an amount can be made in different ways	• Exploring capacities • Sharing and grouping	• A range of practical activities that involve full and empty, half full including more water and less water • Practical activities involving sharing and grouping between 2 and 3 –

		• To know full and empty, more than/less than • To use non-standard units to measure capacities and begin to record		ensure there are number stories to say what has happened e.g I had a bag of 6 sweets and there were 3 children – how can I find out how many they will get each?
Week 8 Week 9 Week 10	Multiplication & Division	• To know odd and even numbers • To begin to record multiplication number sentences and introduce x to mean 'lots of' • To identify patterns in number and start to make predictions • To share numbers into different groups of equal size and begin to record this	• Adding more and taking away	• Range of practical inputs involving adding and taking away – include maths stories to illustrate e.g I had four carrots and a rabbit ate two of them…
Week 11	Geometry: Position & Direction	• To know ¼, ½, ¾ and whole turns	• Doubling numbers up to 6 +6	• Use dice and roll to find doubles – what is double 3? Etc • Use dominoes – overturn to find doubles – what is double 4? • Use ladybirds and identify doubles
Week 12	Statistics	• To answer questions about data in tally charts and pictograms (1 pic is 1 vote)	• Counting in tens	• Use straw bundles of ten to reinforce counting in tens • Use numicon to reinforce counting in tens • Use cuisennaire rods to reinforce counting in tens • Use bead strings to 100 to reinforce counting in tens
Week 13		PUMA Tests	• Counting in twos	• Use numicon 2 piece to count in twos • Use pairs of socks to count in twos • Use beadstrings and move two together to count in twos • Use 2 pence piece to count in twos

ONGOING – YEAR 1	ONGOING - RECEPTION
• I can tell whether any number between 1-100 is odd or even • To write words to represent numbers • To know ¼, ½, ¾ turns clockwise and anti-clockwise	• Rote counting to twenty • Vocabulary – today, yesterday, tomorrow, more than, less than, taller, shorter, longer, heavier, lighter

Maths Medium Term Planning – Mixed Age

Year Groups: Years 2 and 3 Term: Autumn

	Maths Topic	Year 2	Year 3
Week 1 Week 2	Number & Place Value	• I can tell whether a number between 1 and 100 is odd or even • To partition 2-digit numbers into tens and units & be able to make it, draw it, write it in numbers and words To count in tens forwards and backwards from any number	• To know the place value of digits in a 3 digit number • To identify, represent and estimate numbers using different representations • To count on from zero in 50s and 100s • To find 10 or 100 more or less than a given number
Week 3 Week 4	Addition	• To add three 1digit numbers • To recall & use addition facts to 20 • To know the addition of two numbers can be done in any order • To add a 2 digit number and 1s – not bridging then bridging To add a 2-digit number and 10s	• To recall and use addition facts to 100 • To add 3 digit number + ones – not bridging then bridging • To add 3-digit number and tens – not bridging then bridging • To add 3 digit number and hundreds – not bridging then bridging
Week 5	Geometry 2D Shape	• To identify and describe patterns of 2d shapes • To sort 2d shapes To identify vertical lines of symmetry	• Draw 2d shapes (rulers needed) • Identify and draw horizontal and vertical lines • Identify perpendicular and parallel
Week 6 Week 7	Subtraction	• To subtract a 1 digit number from a 2 digit number – not bridging then bridging • To subtract a ten from a 2 digit number To understand that subtraction can not be done in any order	• To subtract 3 digit – 1 digit (not bridging then bridging) • To subtract 3 digit – 2 digit (not bridging then bridging) • To subtract 3-digit – 3 digit (not bridging then bridging)
Week 8	Fractions	• To know that a fraction is equal parts of a whole (1/3, ¼, ½) • To know 2/4 is the same as ½	• To find a unit fraction of a shape, length or number (¼, 1/3, 1/5, 1/8, 1/10)

		• To know that when the numerator and denominator are the same the value is one whole	• To know that when the numerator and denominator are the same the value is one whole • To count up in tenths • To find a non-unit fraction of a shape, length or quantity
Week 9	Measurement length	• To use standard units to estimate and measure a length To know the unit measure is metres and centimetres	• To measure, compare, add and subtract lengths in mm, cm and metres • To know that there are 10mm in a cm and 100cm in a metre • To measure and calculate the perimeter of 2d shapes
Week 10 Week 11	Multiplication & division	• To know odd and even numbers • To count in 2s, 5s and 10s To know multiplication and division facts for 2,5,10 using arrays	• To count in steps of 4 and 8 • To make links between 2,4,8 x with doubling • To know corresponding multiplication and division facts for 4 and 8 • To multiply a 2 digit number by a 1 digit number using mental methods by partitioning
Week 12	Measurement Mass	• Choose and use standard measures to estimate and measure masses (g, kg) Read scales and their increments (2s, 5s, 10s)	• To measure, compare, add and subtract masses in grams and kilograms • To read scales

ONGOING
• To write words to represent numbers • To tell the time in 12 and 24 hour clock • To know days in each month, days in a year and leap year • To know ¼, ½ and ¾ turns

Maths Medium Term Planning – Mixed Age

Year Groups: Years 2 and 3 Term: Spring

	Maths Topic	Year 2	Year 3
Week 1 Week 2	Number & Place Value	• To know numbers can be partitioned in different ways • To count in 2s, 5s and 10s • To use >, <, = to compare numbers To position numbers on a number line to 100	• To partition in different ways up to 1000 • Revision of draw it, partition it, write it in numerals, write it in words
Week 3 Week 4	Addition & Subtraction	• To add two 2 digit numbers by partitioning – not bridging then bridging • To subtract a 2 digit number from a 2 digit number not bridging then bridging • To be able to show methods of adding and subtracting by drawing	• To add and subtract numbers up to 3 digits using formal written methods (columnal) • To solve problems involving addition and subtraction
Week 5	Fractions	• To find ¼, 2/4, ¾ of a shape, length or quantity	• To write fractions that match a discrete set of objects • To add and subtract fractions of the same denominator up to one whole
Week 6	Statistics	• To read and interpret data in bar charts and pictograms including scales of 2,5 and 10 To create pictograms to represent data	• To interpret and present data using bar charts, pictograms and tables
Week 7 Week 8	Multiplication & Division	• To know that x can be done in any order by division can not • To know that multiplication is repeated addition and division is repeated subtraction Missing number sentences i.e. 30 = ? x 5	• To know multiplication and division facts for 3,4,8,2,5,10 • To multiply a 2 digit number by a 1 digit number by partitioning • To divide a 2 digit by a 1 digit number • To know fact families for multiplication and division
Week 9	Measurement:Time	• To compare sequences of time	• To understand the terms am and pm • To understand the 12 hour and 24 hour clock

		• To read the time including ¼ past, ¼ to and half past To tell the time in 5 minute intervals	• Read time to the nearest 5 minutes • Read time to the nearest minute • To compare durations of events
Week 10	Measurement:Money	• To know there are 100 pennies in a pound • To know how many of each coin make £1 • To total a set of coins up to £1 • To find different ways of making an amount up to £1 To read an amount as £ and pence i.e £1.72	• To add and subtract and give change using pounds and pence
Week 11 Week 12	Geometry: 3D shape (Y2) angles (Y3)	• To know the properties of 3d shapes • To identify 2d shapes in 3d faces • To sort 3d shapes (it has…/ is does not have…) To identify, order and arrange patterns & sequences of shape	• Make 3d shapes using modelling materials • Recognise 3d shapes in different orientations and describe them • To know an angle is a measurement of turn • To know that a quarter turn is also called a right angle • To know that two right angles make a half turn and three make a ¾ turn and four make a whole turn.

ONGOING - Year 2 need to be at pictorial stage of cpa approach by here- incl numberline or drawing apparatus
• To write words to represent numbers • To know days in each month, days in a year and leap year • To tell the time in 12 and 24 hour clock

Maths Medium Term Planning – Mixed Age

Year Groups: Years 2 and 3 Term: Summer

	Maths Topic	Year 2	Year 3
Week 1	Number & Place Value	• To count in 3s • To use apparatus to partition and combine beyond 100 • To solve problems using place value • To know what each digit in a 3 digit number represents	• Compare and order numbers to 1000 • Count on in 4s and 8s
Week 2 Week 3	Addition & Subtraction	• To recognise the inverse relationship between addition and subtraction and use this to check calculations • To solve missing number problems involving addition and subtraction	• To add and subtract numbers up to 3 digits using formal written methods • Use inverse to check accuracy of calculations • To solve problems including missing number problems
Week 4 Week 5	Fractions	• To reinforce equivalence of ½ & ¼ • To count up in quarters ¼, … 1 1/4 , 1 2/4, 1 ¾, 2	• To recognise and show with diagrams, equivalent fractions with small denominators • To compare and order unit fractions • To compare and order fractions with the same denominator • To solve problems using fractions
Week 6	Measurement: temperature	• To read scales that measure capacities and understand ml/ litres • To read scales that measure temperature • To add and subtract money giving change of the same unit i.e £-£ or p-p	• To read scales on a thermometer and know this is in degrees • To understand negative numbers are below zero • To calculate differences in temperature using a numberline
Week 7	Measurement: capacity		• To measure and compare capacities in litres and millilitres
Week 8	Multiplication & division	• To know times tables for 2,5,10 and corresponding division facts	• To solve problems involving measuring and scaling

Week 9 Week 10		• To count in steps of 3 and represent this as multiplication	• To solve problems involving combinations • To know multiplication and division facts for 2,3,4,5,8,10 • To be able to multiply a 2 digit by 1 digit number • To be able to divide a 2 digit by 1 digit number
Week 11	Geometry: Position & Direction (Y2) Angles (Y3)	• To describe movement in a straight line • To know a ¼, ½, ¾ turn and know the difference between clockwise and anti-clockwise	• To use a right angle measure to find right angles • To identify angles bigger or smaller than a right angle and find them in shapes
Week 12	Statistics	• To create bar charts and ask and answer questions about them.	• To solve 1 and 2 step questions using information presented in scaled bar charts, pictograms and tables.

ONGOING
• To write words to represent numbers • To know days in each month, days in a year and leap year • To tell the time in 12 and 24 hour clock