Barndale House School

Mathematics Scheme of Work
Yearly Overview
Class 2 (Upper Key Stage 2)

Every day is an opportunity to shine

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value			Number: Addition and Subtraction					Number: Multiplication and Division			Consolidation
Spring	Number: Multiplication and Division			Measurement : Money	Statistics		Measurement: length and perimeter			Number: Fractions		Consolidation
Summer	Number: Fractions			Measurement: Time			Geometry: Properties of Shape		Measurement: Mass and Capacity			Consolidation

Class 2 (Upper Key Stage 2) – Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number – Place Value Identify, represent and estimate numbers using different representations Find 10 or 100 more or less than a given number Recognise the place value of each digit in a three-digit number Compare and order numbers up to 1000 Read and write numbers up to 1000 in numerals and in words Solve number problems and practical problems involving these ideas Count from 0 in multiples of 4, 8, 50 and 100			Number – Addition and Subtraction Add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three-digit number and hundreds Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction Estimate the answer to a calculation and use inverse operations to check answers Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction					Number – Multiplication and Division Count from 0 in multiples of 4, 8, 50 and 100 Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which *n* objects are connected to *m* objectives		

Class 2 (Upper Key Stage 2) – Autumn Term – Number: Place Value
Small Steps Skills

P Step 4 and P Step 5	Picks up and puts down single objects - Holds two objects at a time - Puts down an object in order to pick up another - Collects objects that interest them - Enjoys helping an adult count objects - Follows a counting sequence - Enjoys number rhymes and finger games - Joins in actions in number rhymes and finger games - Assists with one-one matching activities - Uses numbers when playing - Holds up a single finger on request - Holds up two fingers on request - Indicates 1 object - Indicates 2 objects - Makes a group one 1 object - Makes groups of 2 - Makes groups of 'lots'
P Step 6 and P Step 7	Joins in rote counting to 10 - Counts up to 5 independently - Points to objects as they count - Counts up to 5objects - Puts 5 objects out on request - Matches numerals to 5 - Joins in number rhymes - Plays game using dice with 0 to 5 spots - Identifies numerals up to 3 - Names numerals to 5 - Sequences numbers to 5 - Puts quantities onto numerals - Matches numerals to quantities - Compares 2 sets of counters (up to 5) pointing to the group that is; smaller /larger /greater /fewer /more /less
P Step 8	Joins in rote counting - Can rote count to 10 consistently - Counts up to 8 objects correctly - Matches numeral to 10 - Sequence numerals to 8 - Match quantities to 8 - Finds numbers on a number line to 10 - Write numbers to five - Record quantities using numbers 1 to 5 - Sorts numerals from other shapes - Ordinal numbers – first, last, second, third - Plays games using dice with numbers or spots to 10
Step 1a	Joins in number stories and rhymes – points to numbers in surroundings – joins in rote counting to 20 – rote counts to 15 consistently – continues a rote count to 10 from a given number – counts out objects to 10, matching the correct number name to each object – states the last number spoken in a count as the amount in total – recognises numbers to 10 – matches numerals to 20 – orders numbers to 10 – writes numbers to 10 – compares quantities to 10 – puts out quantities to 10 – from a given number to 10 finds number before/after, one more/less
Step 1b	Observes different numbers to 50 – Counts forward from 0 to 20 – Counts an irregular arrangement of up to 20 objects – Counts in ordinal numbers to 10 – Identifies the position of an object using ordinal numbers to 10^{th} – uses the term last for the final object – realizes the relationship between ordinal and cardinal numbers – finds numbers to 20 on a number line 0 writes numbers to 20 consistently – orders numbers to 20 consistently 0- identifies missing numbers on a number line – identifies the number between two given numbers – counts 20 objects consistently – counts objects/things that cannot be touched to 20
Step 1c	Observes different numbers to 100 – Counts forward from 0 to 50 – Counts in ordinal numbers to 20 – Identifies the position of an object using ordinal numbers to 20^{th} – Uses the term last for the final object – Realizes the relationship between ordinal and cardinal numbers – Finds numbers to 50 on a number line - writes numbers to 50 consistently – orders numbers to 50 consistently - identifies missing numbers on a number line – identifies the number between two given numbers – counts 50 objects consistently – counts objects/things that cannot be touched to 50
Step 1d	Rote counts to 100 accurately – Joins in rote counting in groups of 10 to 100 – Counts forward from 0 to 100 – Counts backwards from

	100 to 0 – Counts forwards and backwards between 2 given numbers up to 100 – Counts on from a given number to 100 – Knows that the numbers in the counting sequence are getting bigger – Reads numbers to 100 – Writes numbers to 100 – Writes phonetically acceptable words for numbers to 20 – Records number of objects – Relates ordinal numbers to cardinal numbers – Relates cardinal numbers to dates – Gives an empty set a value of none or 0 – Uses the terms: more, add, and, score, make, sum, total, altogether, double, less, take away, leave
Step L2	Starts counting at a given number to 100 – Counts forwards and backwards between two given numbers - Places three non-sequential numbers up to 100 in order – Extends a number sequence counting on in twos – Estimates the position of any number up to 100 on a number line or number square – Counts beyond 100 – Writes numbers in words up to 50 – Partitions two digit numbers eg 27 = 20 + 7
Step U2	Reads, writes, orders and compares numbers to 1000 – Compares numbers using < and > signs – Counts forwards and backwards from 0 in multiples of 2, 5, 10, 3, 4, 8, 50, 100, 6, 7, 9, 25 and 1000 – Estimates numbers to 100 – Recognises patterns in the number system – Recognises the place value of each digit in a three or four digit number – Use partitioning related to place value to solve problems – Rounds numbers up to the nearest 10, 100 or 1000 – Counts backwards through zero to include negative numbers – Places negative and positive numbers on a number line – Reads Roman numerals to 100 and know that the numeral system changed to include the concept of 0 and place value

Class 2 (Upper Key Stage 2) – Autumn Term – Number: Addition and Subtraction
Small Steps Skills

P Step 4 and P Step 5	Holds two objects at a time - Communicates 'gone' or 'all gone' - Uses objects with multiple parts - Asks for more of something - Responds to 'give me some…' - Responds to 'find one the same' - Responds to 'show me another…' - Makes groups of 2 - Makes groups of 'lots' - Relates commonly associated objects eg gloves for hands - Picks up more than one object on request - Makes two equal sets - Contrast quantities
P Step 6 and P Step 7	Completes a 3 piece form board - One to one matching - Matches pictures to pictures - Identifies and requests more when there are too few objects to complete 1 to 1 matching - Adds an object to a group and counts how many (up to 5) - Removes an object from a group and counts how many (up to 5)
P Step 8	From a given number to 5 find: the number before/ the number after/ one more/ one less - Add 1 more and count how many to 10 - Remove 1 and count how many left to 10
Step 1a	Using objects to do addition to 10 – Realises that addition means combining two groups – Finds the total number of items in two groups by counting them – is aware of the terms; more/add/make/sum/total/altogether/take away/ leave/how many left/ how many gone – Uses objects to 10 takes away given amount – takes objects away from a group when asked to subtract – Separates sets of up to 20 objects into 2 groups
Step 1b	Separates sets of up to 20 objects into 2 groups – States how many are left when some are taken away – Solves subtraction by counting on – Uses number bonds to 10 – Reads and writes the signs +, - and = - Adds two numbers to make 10 – Subtracts one number from 10 – Counts back using a number line to 20 to find how many left – Counts on to find how many are required – Identifies the operation required to solve simple problems – Knows number bonds to 10
Step L2	Understands that the sum does not change no matter what the objects are called – Creates number stories to 20 – Investigates simple problems – Adds two numbers to make 20 – Subtracts two single digit numbers – Uses concrete and pictoral aids to add two digit numbers to single digits – uses concrete and pictoral aids to subtract one digit numbers from a two digit number – Explains the effect of adding or subtracting zero – Recognises that addition can be done in any order – Recognises that subtraction cannot be done in any order – Uses bonds with related facts to 100 – Can add multiples of 10 – can subtract multiples of 10 – recognises patterns eg 2 + 3 = 5, 22 + 3 = 25
Step U2	Uses concrete and pictoral aids to add two digit numbers to ten, two two digit numbers, three single digit numbers – Uses concrete and pictoral aids to subtract ten from a two digit number, two digit numbers from two digit numbers – Recognises that subtraction is the inverse of addition – Records mental addition and subtraction sums, writing numbers and signs – Records addition and subtraction in columns – Adds and subtracts a three digit number and 1 mentally – Adds and subtracts a three digit number and 10 mentally – Adds and subtracts a three digit number and 100 mentally – Estimates the answer to a calculation – Adds and subtracts numbers with up to three digits, using formal written methods – Uses place value to solve problems – Decides which operation is required to solve a problem

Class 2 (Upper Key Stage 2) – Autumn Term – Multiplication and Division

Small Steps Skills

P Step 4 and P Step 5	Holds two objects at a time - Communicates 'gone' or 'all gone' - Uses objects with multiple parts - Follows counting sequence - Makes groups of 2 - Relates commonly associated objects eg gloves for hands - Brings both shoes when asked - Picks up more than one object on request - Makes two equal sets - Contrast quantities - Makes groups of two - Makes groups of three - Gives to things to each person in a group
P Step 6 and P Step 7	Completes a 3 piece form board - One to one matching - Matches pictures to pictures - Identifies and requests more when there are too few objects to complete 1 to 1 matching - Puts quantities onto numerals - Matches numerals to quantities - Compares 2 sets of counters (up to 5) pointing to the group that is; smaller /larger /greater /fewer /more /less
P Step 8	Shares objects into groups
Step 1	Combines two equal groups – Doubles numbers to 5 – Divides objects between to plates – Creates groups of small quantities eg sharing ten into groups of five, three and two – Shares small quantities into groups – Uses counting on to find a double to 20 – Doubles any number to ten – Places objects in an array – Counts objects in an array – Counts in lots of 2 – Counts in lots of 5 – Counts in lots of 10
Step L2a	Calculates multiplication and division problems with support – Doubles any number to ten – Begins to double numbers to 20
Step L2b	Recalls doubles to 20 – Recognises odd and even numbers – Recalls multiplication and division facts for the 2 times table – Uses a rectangular array for X2 – Reads and writes the signs for multiply, divide and equals – Writes number statements using the correct sign – Understands division as sharing equally – Understands division as grouping
Step U2a	Recalls multiplication and division facts for 5 times table, 10 times table – Recognise that multiplication can be done in any order – Recognises that division cannot be done in any order – Calculate multiplication statements and division statements within the multiplication tables – Understands multiplication as repeated addition – Solves problems using arrays

Class 2 (Upper Key Stage 2) – Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – Multiplication and Division</u> Recall and Use multiplication and division facts for 3, 4, and 8 times table Write and calculate mathematical statements for multiplication and division, using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and corresponding problems in which *n* objects and connected to *m* objectives			<u>Measurement: Money</u> Add and subtract amounts of money to give change, using both £ and p in practical contexts	<u>Statistics</u> Interpret and present data using bar charts, pictograms and tables Solve one-step and two-step questions eg 'how many more? And how many fewer?, using information presented in scaled bar charts and pictograms and tables		<u>Measurement – Length and Perimeter</u> Measure, compare, add and subtract: lengths (m/cm/mm) Measure the perimeter of simple 2-D shapes			<u>Number – Fractions</u> Count up and down in tenths; recognize that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 Recognize and use fractions as numbers Recognise, find and write fractions of a discrete set of objects Solve problems that involve all of the above		Consolidation

Class 2 (Upper Key Stage 2) – Spring Term – Number: Multiplication and Division

P Step 4 and P Step 5	Holds two objects at a time - Communicates 'gone' or 'all gone' - Uses objects with multiple parts - Follows counting sequence - Makes groups of 2 - Relates commonly associated objects eg gloves for hands - Brings both shoes when asked - Picks up more than one object on request - Makes two equal sets - Contrast quantities - Makes groups of two - Makes groups of three - Gives to things to each person in a group
P Step 6 and P Step 7	Completes a 3 piece form board - One to one matching - Matches pictures to pictures - Identifies and requests more when there are too few objects to complete 1 to 1 matching - Puts quantities onto numerals - Matches numerals to quantities - Compares 2 sets of counters (up to 5) pointing to the group that is; smaller /larger /greater /fewer /more /less
P Step 8	Shares objects into groups
Step 1	Combines two equal groups – Doubles numbers to 5 – Divides objects between to plates – Creates groups of small quantities eg sharing ten into groups of five, three and two – Shares small quantities into groups – Uses counting on to find a double to 20 – Doubles any number to ten – Places objects in an array – Counts objects in an array – Counts in lots of 2 – Counts in lots of 5 – Counts in lots of 10
Step L2a	Calculates multiplication and division problems with support – Doubles any number to ten – Begins to double numbers to 20
Step L2b	Recalls doubles to 20 – Recognises odd and even numbers – Recalls multiplication and division facts for the 2 times table – Uses a rectangular array for X2 – Reads and writes the signs for multiply, divide and equals – Writes number statements using the correct sign – Understands division as sharing equally – Understands division as grouping
Step U2a	Recalls multiplication and division facts for 5 times table, 10 times table – Recognise that multiplication can be done in any order – Recognises that division cannot be done in any order – Calculate multiplication statements and division statements within the multiplication tables – Understands multiplication as repeated addition – Solves problems using arrays
Step U2b	Writes mathematical statements for multiplication and division for known tables – Multiplies a two digit number by a one digit number – Finds missing numbers in multiplication and division stories – Identifies which of the four operations is required to solve a problem – Recalls multiplication and vision facts for multiplication tables up to 12 X 12 – Multiplies by 0 and 1 – Recalls multiples of 10 and 100 – Calculates using formal written methods for multiplication and division

Class 2 (Upper Key Stage 2) – Spring Term – Measurement: Money
Small Steps Skills

P Step 4 and P Step 5	Shows an interest in the coins in an adult's purse - Plays with coins - Goes shopping - Role plays shopping - Sorts coins into silver and copper
P Step 6 and P Step 7	Matches coins - Counts up to 5 1p coins correctly - Sorts coins by colour and size - Plays shop with items valued up to 5p using 1p coins
P Step 8	Match 10 pence using ten 1p coins - Puts out the correct number of coins to 10p
Step 1	Recognises and knows the value of different denominations of coins – Gives equivalent amounts to 20p – adds two numbers to make 20 – Counts in 2s to 100 – Counts in 5s to 100 – Counts in 10s to 100
Step L2	Gives equivalent amounts to 50p – Gives change from 10p and 20p – Understands and uses £ p notation – Totals shopping bills using coins – Places three non-sequential amounts up to £1 in order – Partitions two digit numbers using apparatus if required eg 27 = 20 + 7
Step U2	Recognises the symbol for pence (p) and pounds (3) – Combines amounts to make a specific value – Uses different coins to make the same amount – Solves simple problems involving addition and subtraction of money of the same unit eg 48p + 35p – Solves simple problems of the same unit for giving change – eg spending 15p and working out change from a 20p coin

Class 2 (Upper Key Stage 2) – Spring Term – Statistics
Small Steps Skills

P Step 4 and P Step 5	Picks up and puts down single objects - Holds two objects at a time - Puts down an object in order to pick up another - Collects objects that interest them - Enjoys helping an adult count objects - Follows a counting sequence - Enjoys number rhymes and finger games - Joins in actions in number rhymes and finger games - Assists with one-one matching activities - Uses numbers when playing - Holds up a single finger on request - Holds up two fingers on request - Indicates 1 object - Indicates 2 objects - Makes a group one 1 object - Makes groups of 2 - Makes groups of 'lots'
P Step 6 and P Step 7	Joins in rote counting to 10 - Counts up to 5 independently - Points to objects as they count - Counts up to 5objects - Puts 5 objects out on request - Matches numerals to 5 - Joins in number rhymes - Plays game using dice with 0 to 5 spots - Identifies numerals up to 3 - Names numerals to 5 - Sequences numbers to 5 - Puts quantities onto numerals - Matches numerals to quantities - Compares 2 sets of counters (up to 5) pointing to the group that is; smaller /larger /greater /fewer /more /less
P Step 8	Uses models or objects to indicate own family – Records data through pictures eg sun/rain – recognizes links between objects eg car/garage, leaf/tree – Names a set of children eg those wearing brown shoes – Completes a tally chart with assistance – Makes a pictogram – Compares data in a pictogram or tally chart – Estimates how many bricks in a container – Estimates how many class mates had breakfast
Step 1	Puts out quantities to 10 – Records data through pictures eg weather information using pictures of the sun and rain
Step L2	Demonstrates an understanding that the number of objects remains the same when they are rearranged providing nothing has been added or taken away – Sorts objects by given criteria – Selects criterion and sorts objects – Observes the use of list, records etc – Extracts simple information from a pictogram or bar graph
Step U2	Counts objects in each category to find the total – Sorts categories by quantity – Compares categorical information – Sorts objects using more than one criteria – Defines the category they want to use to collect specific data – Discusses information collected – Solves questions relating to totaling – Organises data – Suggests how they can represent information they have researched – Interprets and constructs simple pictograms, tally charts, block diagrams and simple tables – Checks that the results help to answer the original question – Answers questions about the results

Class 2 (Upper Key Stage 2) – Spring Term – Measurement – Length and Perimeter
Small Steps Skills

P Step 4 and P Step 5	Matches objects by size - Makes choices based on length - Makes choices based on height - Identifies larger/smaller shapes/objects – choice of 2 - Gives the biggest/smallest on request – choice of 2 - Sorts by size - Finds two objects the same size
P Step 6 and P Step 7	Puts objects in lines - Points to big/little, smallest/largest and larger/smaller when asked - Uses language such as; hard/soft, long/short, big/small, thick/thin, wide/narrow, high/low - Orders according to length - Finds 2 rods the same length - Orders 3 objects by size - Sorts by given or own criteria - Finds smallest/largest on request
P Step 8	Finds objects which are longer/shorter than a specified item - Identify the largest/smallest object from a group
Step 1	Uses parts of the body to measure objects eg spans – Uses strides to measure length of a room – Compares length and height – Describes length and height – Estimates height using non-standard units – Uses cubes/matches to measure objects – Compares length of two objects measured with cubes/matches – Solves practical problems involving height and length – Measures with a ruler with support
Step L2	Suggest suitable units to measure an object – Recognise a range of standard measuring tools – Draws along a straight edge – Makes a simple measuring device – Discuss the problems of using non-standard units – Describe objects as longer or shorter than a ruler
Step U2	Knows 1 metre = 100 centimetres – Describes an object as longer or shorter than a standard measure using >, < and = - Measures in centimetres using a ruler – Uses a metre rule to measure in units of 10 cms – Understands the need to identify the unit used when recording – Chooses and uses appropriate standard units to estimate and measure length and height – Measures to the nearest unit – Measures the perimeter of a simple shape

Class 2 (Upper Key Stage 2) – Spring Term – Fractions
Small Steps Skills

P Step 4 and P Step 5	Holds two objects at a time - Communicates 'gone' or 'all gone' - Uses objects with multiple parts - Follows counting sequence - Makes groups of 2 - Relates commonly associated objects eg gloves for hands - Brings both shoes when asked - Makes groups of two - Makes groups of three - Gives to things to each person in a group
P Step 6 and P Step 7	Completes a 3 piece form board - One to one matching - Matches pictures to pictures - Identifies and requests more when there are too few objects to complete 1 to 1 matching - Puts quantities onto numerals - Matches numerals to quantities - Compares 2 sets of counters (up to 5) pointing to the group that is; smaller /larger /greater /fewer /more /less
P Step 8	Talks about half of something
Step 1	Can halve numbers to 10 – Shares concrete objects between a given number – Attempts to fold paper in half – Colours in half a shape – Colours in quarter of a shape – Uses the term half – Finds half of a set of objects – Finds half of a shape – Shares objects into equal groups – Shares a group of objects into 4 equal parts Uses the term quarter – Colours in quarter of a shape – Divides groups of objects into half
Step L2	Recalls half of any even number to 20 – Recognises, finds and names a half as 1 of 2 equal parts of an object, shape or quantity – Knows two halves make a whole – Finds half a length up to 100 cm – Recognises and writes the symbols $\frac{1}{2}$ and $\frac{1}{4}$ - Identifies halves and quarters of shaded objects – Finds a quarter of a set of objects
Step U2a	Finds a half and quarter of a set of objects – Finds half and quarter of a shape – Finds half and quarter of a length up to 100 cm – Reads and writes $\frac{1}{2}$ - Reads and writes $\frac{1}{4}$ - Recognises fractions 2/4, $\frac{3}{4}$, 1/3 and 2/3 – Demonstrates that $\frac{1}{2}$ = 2/4 – Counts in fractions to 10 starting at any number, and using the $\frac{1}{2}$ and 2/4 equivalence on the number line – Connects unit fractions to equal sharing and grouping

Class 2 (Upper Key Stage 2) – Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – Fractions</u> Recognise and show, using diagrams, equivalent fractions with small denominators Compare and order unit fractions with the same denominator Add and subtract fractions with the same denominator within one whole Solve problems that involve all he above			<u>Measurement – Time</u> Tell and write the time from an analogue clock, Estimate and read time with increasing accuracy to the nearest 5 minutes Record and compare time in terms of minutes and hours Use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight Know the number of seconds in a minute and the numbers of days in each month, year and leap year Compare duration of events			<u>Geometry – Properties of Shape</u> Recognise angles as a property of shape or a description of a turn Identify right angles, recognize that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater or less than a right angle Identify horizontal and vertical lines and pairs of perpendicular and parallel lines Draw 2-D shapes and make 3-D shapes using modelling materials Recognise 3-D shapes in different orientations and describe them		<u>Measurement – Mass, Capacity and Temperature</u> Measure, compare, add and subtract: mass (kg/g); volume/capacity (l/ml)			Consolidation

Class 2 (Upper Key Stage 2) – Summer Term – Number: Fractions
Small Steps Skills

P Step 4 and P Step 5	Holds two objects at a time - Communicates 'gone' or 'all gone' - Uses objects with multiple parts - Follows counting sequence - Makes groups of 2 - Relates commonly associated objects eg gloves for hands - Brings both shoes when asked - Makes groups of two - Makes groups of three - Gives to things to each person in a group
P Step 6 and P Step 7	Completes a 3 piece form board - One to one matching - Matches pictures to pictures - Identifies and requests more when there are too few objects to complete 1 to 1 matching - Puts quantities onto numerals - Matches numerals to quantities - Compares 2 sets of counters (up to 5) pointing to the group that is; smaller /larger /greater /fewer /more /less
P Step 8	Talks about half of something
Step 1	Can halve numbers to 10 – Shares concrete objects between a given number – Attempts to fold paper in half – Colours in half a shape – Colours in quarter of a shape – Uses the term half – Finds half of a set of objects – Finds half of a shape – Shares objects into equal groups – Shares a group of objects into 4 equal parts Uses the term quarter – Colours in quarter of a shape – Divides groups of objects into half
Step L2	Recalls half of any even number to 20 – Recognises, finds and names a half as 1 of 2 equal parts of an object, shape or quantity – Knows two halves make a whole – Finds half a length up to 100 cm – Recognises and writes the symbols $\frac{1}{2}$ and $\frac{1}{4}$ - Identifies halves and quarters of shaded objects – Finds a quarter of a set of objects
Step U2a	Finds a half and quarter of a set of objects – Finds half and quarter of a shape – Finds half and quarter of a length up to 100 cm – Reads and writes $\frac{1}{2}$ - Reads and writes $\frac{1}{4}$ - Recognises fractions 2/4, $\frac{3}{4}$, 1/3 and 2/3 – Demonstrates that $\frac{1}{2}$ = 2/4 – Counts in fractions to 10 starting at any number, and using the $\frac{1}{2}$ and 2/4 equivalence on the number line – Connects unit fractions to equal sharing and grouping
Step U2b	Demonstrates understanding that a tenth is one part of a whole that has been divided into ten equal parts – Connects tenths to decimals – Recognises and writes down the fractions of a discrete set of objects – Compares and orders unit fractions – Recognises common equivalent fractions – Adds and subtracts fractions with the same denominator – Finds a fraction of a quantity eg $\frac{1}{4}$ of 12

Class 2 (Upper Key Stage 2) – Summer Term – Measurement: Time

Small Steps Skills

P Step 4 and P Step 5	Demonstrates awareness of whether it is light or dark - Makes objects move faster or slower - Accepts changes in activity during the day - Shows anticipation of favored activities - Recognizes daily routines - Watches sand timer
P Step 6 and P Step 7	Sequences 3 pictures of daily events eg first, breakfast, then go to school - Correctly uses the language before/after, day/night, now/later - Moves objects slowly/quickly on request - Moves self slowly/quickly on request
P Step 8	Sequences 4 pictures of daily events - Uses language for times of the day; morning, afternoon, meal time, bed time, day, night - Rote chants days of the week - Identifies some of the days of the week - Discuss what time key things happen in the day
Step 1	Knows the days of the week in order – Names tomorrow – Names yesterday – Knows in which month their birthday occurs – Says the months of the year in rote – Measures and begins to record time in minutes or seconds – Sequences events in chronological order – Recognises language relating to dates – tells the time to the hour and half hour and draws hands on a clock face – Recognises the difference between clockwise and anticlockwise – Solves practical problems involving time
Step L2	Names the days that make the weekend – Names and sequences the seasons of the year – Relates time of day to events – Solves simple problems related to hours, half hours and quarter hours – Reads hours and half hours on a digital clock – Counts the seconds in time with a clock – States how many hours there are in a day – States how many minutes there are in an hour – States how many seconds there are in a minute – Recites the months of the year – Reads quarter hours on an analogue clock – Estimates how long a familiar task will take
Step U2	Compares intervals of time eg 20 minutes and a quarter of an hour using >, < and = - Sequences intervals of time – Reads a clock showing quarter past and quarter to the hour – Draws the hands on the clock to show quarter past and quarter to – tells the time in 5 minute intervals – Draws the hands on a clock to show the time in five minute intervals

Class 2 (Upper Key Stage 2) – Summer Term – Geometry – Properties of Shape
Small Steps Skills

P Step 4 and P Step 5	Handles shapes - Rolls/slides shapes - Presses buttons - Feels textures of surfaces - Builds with bricks - Knocks down bricks - Assembles simple construction materials - Uses, sand, modelling dough and pliable materials - Puts pegs in peg boards - Finds objects that are the same - Finds objects with a specific characteristic eg an object that is green - Matches pairs of objects - Matches objects/picture and pictures/pictures - Sorts by colour - Sorts by function
P Step 6 and P Step 7	Completes a 3 piece form board - Matches 2D shapes - Copies simple line pattern of six bricks, 2 colours - Finds all the circles in a tray of shapes - Puts pegs in a peg board in order of size - Copies a circle shape - Traces large shapes - Places correct shapes in a shape sorter - Matches simple abstract shapes - Selects a specific shape from a collection - Makes geometric shapes with pictures of shapes - Joins dots to draw a square, a triangle - Explores which 3D shapes roll - Makes patterns with 2D shapes - Matches objects according to shape disregarding size - Finds shapes from description eg with straight edges - Finds common attributes
P Step 8	Handles shapes and describes them by number of sides and corners - Copies shapes - Sorts 3D objects - Identifies objects from a choice of 3 - Copies patterns made with 2D shapes - Names objects as same or different
Step 1	Names common 2-D shapes; rectangle/square/circle/triangle – Names common 3-D shapes; cuboid/sphere/cube/pyramid – Recognises common 2-D shapes in objects – Recognises common 3-D shapes in common objects – Recognises 2-D and 3-D shapes in different orientation and size – Creates a range of patterns using shapes – Describes a range of patterns using shapes – matches shapes regardless of size
Step L2	Describes shapes by the number of faces, edges and corners – Recognises shapes they cannot see but can feel – Investigates which 3D shapes roll or slide – Makes pictures using 2D shapes – Creates repeat patterns - Observes shapes in nature – Identifies and describes: pyramids, prisms, hemisphere – Names, draws and describes: square, rectangle, circle, triangle, pentagon, hexagon, decagon – Uses construction equipment to build 3D shapes – Records which 2D shapes were used to build 3D shapes
Step U2	Demonstrates the vertical line of symmetry in a 2D shape – Knows the number of edges, vertices and faces in a 3D shape – Sorts and compares common 2D and 3D shapes – Draws lines and shapes using a straight edge – Spells the names of common shapes

Class 2 (Upper Key Stage 2) – Summer Term – Measurement: Mass, Capacity and Temperature
Small Steps Skills

P Step 4 and P Step 5	Picks up and moves objects - Holds objects in their hands - Fills a container - Stops trying to drink when cup is empty - Stops trying to feed when the plate is empty - Puts stones in water - Understands heavy/light - Interacts with water/sand filling and emptying containers - Pours from one container to another with little spillage – Feels ice, warm liquids, cold liquids, hot foods – Describes temperature in terms of hot and cold
P Step 6 and P Step 7	Compare weight of 2 objects - Uses the language heavy/light - Identifies which container has more/less liquid - Correctly uses language heavy/light, heavier/lighter - From a choice of 2, finds the heavier/lighter object Balances objects on a weighing scales - Correctly uses the language full/empty, more/less - Finds out which container holds the most/the least – Shows awareness of danger when objects are hot – Knows that things melt – Uses comparative terms; hotter/colder, warmer/ cooler – looks at a thermometer
P Step 8	Finds objects which are heavier/lighter than a specified object - Compares containers; which holds more/less – Estimate number of cubes in a container - Count cubes in a container – Knows the sun makes warmth – Explains that ice and snow melt – Compares night and day temperatures
Step 1	Uses a balance to find out which object is heavier – Weighs an object using non-standard units eg cubes – Compares weight and size – Compares mass/weight – Describes mass/weight – Uses term; heavy, light, heavier than/lighter than – Measures and begins to record mass and weight using standard units with support – Puts 4 containers in order of size – calculates capacity using non-standard units – Compares and describes capacity and volume – Uses terms; full, empty, more then, less than, half, half full, quarter – Records their measurements of volume/capacity in terms of the units used eg cups – Begins to use containers to compare capacity – Names some objects that can be hot/cold – Compares the temperature of water using their hands/feet
Step L2	Suggests suitable units to weigh an object or measure capacity – Becomes aware of standard units for weight – Recognises some standard units used to measure capacity – Observes weather – Lists where they may see objects being weighed – Discusses different types of scales – Handles and discusses objects that weigh more or less than a kilogram – Lists liquids that come in standard measures – Identifies containers that hold more or less than a litre – Lists equipment that heats or cools food and objects
Step U2	Knows 1 kilogram = 1000 grams, 1 litre= 1000 millilitres – Describes an objects as heavier or lighter than a standard measure – Finds the weight of objects up to 100 grams – Describes an object as holding more or less than a standard measure – Chooses and uses appropriate standard units to estimate and measure temperature – Measures temperature using a thermometer with some accuracy – Compares, orders and records temperature using <, > and =