

Black – Main content to be taught
Italic – Daily fluency objectives
Purple – Challenge objectives
Learning objectives are not listed in a specific order and may be taught more than once to support learning progression.



HCAT Maths Year on a Page

Year 1 – 2025/2026

Autumn Term 1				Autumn Term 2				Spring Term 1					
Week 1 01/09/25 3-day week	Number & Place Value	To count to and across 100 forwards from any given number To count to and across 100 backwards from any given number. To count, read and write numbers to 100 in numerals. To identify one more and one less. To identify and represent numbers using pictorial representations (up to 100) To use the language of equal to, more than, less than (fewer), most, least. To read and write numbers from 1-20 in numerals and words. To order amounts using language first, second and third To practice counting forwards and backwards		Week 1 09/11/25	Multiplication	To count in 2s, 5s and 10s from any given number. To double numbers up to 20 using concrete & pictorial resources (e.g. double 15) To use concrete objects to show understanding of repeated addition. To explore grouping through repeated addition and pictorial representations.. To solve simple one step problems involving multiplication, by calculating the answer using concrete objects, pictorial representations (introduction of the x sign) To identify missing numbers when counting in 2s.		Week 1 05/01/26	Place Value	To explore odd and even numbers. To count in 2s, 5s and 10s from different multiples. To compare given amounts up to 100, using objects and pictorial representations. To identify and represent numbers using a number line. To recognise and create repeating patterns with numbers. To count forward in 10s			
Week 2 08/09/25		To read and write addition calculations including the + and = sign To recall number bonds to 10. To represent and use number bonds to 20 (e.g. 13+7=20) To represent and use number bonds within 20 (e.g. 15+4=19) To add 1 digit and 2-digit numbers to 20 including 0. To solve one step problems that involve addition, using concrete resources and pictorial representations. To solve missing number problems (7= ? +3) Count in multiples of 2s from any given number		Week 2 19/11/25		Division		To recognise equal groups. To explore sharing a total amount into equal groups using concrete resources. To make equal groups by grouping To make equal groups by sharing To solve one step problems involving division (introduction of the division sign) To identify missing numbers when counting in 2s.		Week 2 12/01/26		Addition & Subtraction	To recall number bonds to 10 and 20 To add two 1-digit numbers to 20 using a number line (calculation policy) To use the part-whole method to add and subtract numbers within 20 To show that addition of two numbers can be done in any order (commutative) and subtraction can not. To apply knowledge of related facts to create a fact family. To solve addition problems in context To solve subtraction problems in context To explore near doubles up to 20 To count forward in 10s from any given number
Week 3 15/09/25		To read and write subtraction calculations including the – and = sign To recall number bonds to 10 making links to subtraction (e.g. 10-6=4) To represent and use number bonds within 20 and related subtraction facts. To subtract 1 digit and 2-digit numbers to 20 including 0. To solve one step problems that involve subtraction, using concrete resources and pictorial representations. To solve missing number problems (7= ? – 9) Count in 2s backwards.		Autumn Assessment Week				Week 3 19/01/26		To recognise, find and name half of an object, shape and quantity (recap) To recognise a quarter of an object or shape To find a quarter of an object or shape To recognise a quarter of a quantity To find a quarter of a quantity To solve one step problems including fractions. To apply knowledge of halves and quarter to practical problems (e.g. pouring half a cup of water, cutting ribbon in half etc) To count backwards in 10s			
Week 4 22/09/25	Subtraction	To read and write subtraction calculations including the – and = sign To recall number bonds to 10 making links to subtraction (e.g. 10-6=4) To represent and use number bonds within 20 and related subtraction facts. To subtract 1 digit and 2-digit numbers to 20 including 0. To solve one step problems that involve subtraction, using concrete resources and pictorial representations. To solve missing number problems (7= ? – 9) Count in 2s backwards.	Week 4 24/11/25	Measurement: Time	To tell the time to the hour (o'clock) To write the time (e.g. 1 o'clock, 2 o'clock) To explore hours, minutes and seconds (practical understanding e.g. brushing teeth/minutes, travelling on a plane/hours etc) To measure and begin to record time using hours, minutes and seconds (e.g. use of stopwatch/ sand timers against) To solve problems with o'clock and half past. To tell the time to half past the hour Count in multiples of 5		Week 4 26/01/26	Fractions	To recognise, find and name half of an object, shape and quantity (recap) To recognise a quarter of an object or shape To find a quarter of an object or shape To recognise a quarter of a quantity To find a quarter of a quantity To solve one step problems including fractions. To apply knowledge of halves and quarter to practical problems (e.g. pouring half a cup of water, cutting ribbon in half etc) To count backwards in 10s				
Week 5 29/10/25		Number: Fractions	To recognise half of an object or shape To find half of an object or shape To recognise half of a quantity To find half of a quantity To investigate halves using the language of equal parts. Count in multiples of 2s from any given number		Week 5 01/12/25	Geometry: Properties of shape	To recognise and name common 2D shapes (rectangles, including squares, circles and triangles) To sort 2D shapes (rectangles, including squares, circles and triangles) To recognise and name common 3D shapes (cuboids, cubes, spheres and pyramids) To sort 3D shapes (cuboids, cubes, spheres and pyramids) To relate 2D and 3D shapes to everyday objects in different orientations and sizes. Count in multiples of 5 from any given number		Week 5 02/02/26	Geometry: Properties of Shape	To begin to recognise 2D and 3D shapes in different orientations and sizes. To recognise name common 2D and 3D shapes To recognise and create repeated patterns with objects and shapes. To know that rectangles, triangles, cuboids an pyramids are not always similar to each other. To count backwards in 10s from any given number		
Week 6 06/10/25			Measurement: Money		To recognise and know the different values of notes and coins. To order coins and notes. To compare the value of coins and notes (e.g. comparing 50p and 20p) To count in coins. To use an appropriate strategy to find a total amount. Count in 2s fluently forwards and backwards.		Week 6 08/12/25		Measurement: Length & Height		To compare lengths and heights using language such as: longer than and shorter than To measure lengths using objects To solve practical problems for length and height e.g. long/ short, longer/shorter, tall/short, double/half. To begin to use cm to measure lengths and heights. Count in 5s backwards		
Week 7 13/10/25	Measurement: Time			To sequence events in chronological order using language (before, after, next, first, today, yesterday, tomorrow, morning, afternoon, evening) To use language relating to days including days of the week, weeks, months and years. To describe time using quicker, slower, earlier and later. To measure and begin to record time using hours, minutes and seconds. To use the language of time including telling the time throughout the day (lunchtime, breaktime etc) Count in multiples of 2s from any given number	Week 7 19/12/25		Geometry: Position and Direction	To use and understand correct vocabulary to describe position (left and right, top middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside) To use and understand correct vocabulary to describe direction and movement (left, right, forwards and backwards) To describe position, direction and movement including half, quarter and three-quarter turns. To make whole, half, quarter and three-quarter turns in both directions. To explore clockwise and anticlockwise when turning. Count in 5s backwards from any given number					
Week 8 20/10/24 3-day week													
October Half Term				Christmas End of Term				February Half Term					



HCAT Maths Year on a Page

Year 1 – 2025/2026



Spring Term 2				Summer Term 1				Summer Term 2 – Consolidating all key concepts, identifying opportunities to draw upon other areas of maths and develop mastery.				
Week 1 23 /02 /26	Measurement: Time	To tell the time to the hour o clock (recap) To tell the time to half past the hour To compare time To solve problems with o clock and half past. <i>To fluently count in 2s, 5s and 10s on a number line/scale linked with measure.</i>		Week 1 13 /04 /26	Geometry: Properties of Shape	To know that rectangles, triangles, cuboids and pyramids are not always similar to each other. To link 2D and 3D shapes to everyday objects. To begin to describe the properties of 2D shapes. To begin to describe the properties of 3D shapes <i>To recall number bonds to 10 and 20</i>		Week 1 01 /06 /26	Combining Concepts	To read and write numbers from 1-20 in words. To read and write numbers from 1-100 in numerals. To show understanding of the place value of a number with concrete objects. To solve 1 step addition problems <i>To count across 100</i>		
Week 2 02 /03 /26	Measurement: Mass/Weight	To measure and begin to record mass and weight To compare, describe and solve practical problems for mass and weight e.g. heavy/ light, heavier than/ lighter than, To use weighing scales and containers to measure mass and weight <i>To fluently count in 2s, 5s and 10s on a number line/ scale linked with measure.</i>		Week 2 20 /04 /26	Addition & Subtraction	To add 1-digit and 2-digit numbers to 20 using a number line (calculation policy) To use near double to solve addition problems. To apply knowledge of related facts to create a fact family (create own) To subtract by finding the difference To discuss and solve problems in familiar, practical contexts (money or measure) To solve addition and subtraction missing number problems <i>To identify one more and one less from any given number</i>	Week 2 08 /06 /26	Summer Assessment Week				
Week 3 09 /03 /26	Measurement: Money	To compare the quantities of notes and coins (e.g. comparing the amounts of coins in mixed purses) To compare the amounts using < > = To use an appropriate strategy to find a total amount. To compare, describe and solve practical problems for money <i>To fluently count in 2s, 5s and 10s / find missing numbers in a sequence</i>		Week 3 27 /04 /26		Week 3 15 /06 /26	Combining Concepts	To put halves and quarters together to make a whole To solve 1 step problems including fractions To solve 1 step multiplication problems To solve 1 step division problems To solve real-life problems in the context of (money and measures) <i>To recite the days of the week, months and year</i>				
Week 4 16 /03 /26	Number: Fractions	To find half and a quarter of a quantity To find and describe half of a 2D shape using reasoning about equal parts. To find half of more complex 2D shapes (e.g. arrow, diamond etc) To find and describe quarter of a 2D shape using reasoning about equal parts. To find quarter of more complex 2D shapes (e.g. arrow, diamond etc) <i>To fluently count in 2s, 5s and 10s from any given number</i>		Week 4 04 /05 /26 4-day week	Multiplication and Division	To use repeated addition for multiplication. To use arrays for multiplication. To solve problems by sharing and grouping objects. <i>To halve numbers</i>		Week 4 22 /06 /26	Combining Concepts	To solve 1 step subtraction problems To describe position, direction and movement – including whole, half, quarter and three-quarter turns To recognise that objects can be rotated clockwise and anti-clockwise <i>To recite the days of the week, months and year</i>		
Week 5 23 /03 /26	Number: Multiplication and division	To use repeated addition in context To use arrays to represent multiplication To double and halve numbers fluently and apply to problems <i>To make connections between number patterns and counting in 2s, 5s and 10s.</i>		Week 5 11 /05 /26	Measurement: Capacity/ Volume	To describe capacity using the language full, empty, more than less than, half, full, quarter. To compare and order capacity and volume. To measure capacity using appropriate tools (how many cups to fill the jug?) To solve simple practical problems for capacity and volume. <i>To double numbers fluently</i>	Week 5 29 /06 /26	Combining Concepts		Addressing Misconceptions following recent assessments		<i>Use of trackers and QLA and teacher assessment of pupils within your class to address gaps in learning. Relevant learning objectives need to be taken from this document depending on what your pupils need and used each lesson.</i> <i>Use of time to ensure that pupils have the fundamentals for the next academic year.</i>
Easter End of Term				Week 6 18 /05 /26	Measurement: Length and Height	To measure and begin to record lengths and heights in cm To use measuring tools to measure length and height (e.g. ruler, measuring tape) To compare, describe and solve practical problems for length and height e.g. long/ short, longer/shorter, tall/short, double/half. To make links with addition and subtraction <i>To double and half numbers fluently</i>	Spring Bank Half Term		Summer Holidays End of Term			



HCAT Maths Year on a Page

Year 1 – Curriculum Guide – Place Value



National Curriculum Objectives:

Pupils should be taught to:

- Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- Given a number, identify one more and one less
- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least Read and write numbers from 1 to 20 in numerals and words.

Misconceptions:

- Misunderstanding the values of each column.
- Failing to understand the difference between tens and ones.
- Misunderstanding vocabulary
- Writing digits the wrong way round.
- Getting the tens and ones in the wrong order, e.g. 31 instead of 13.
- Not understanding the concept of zero as a place holder.
- Mixing up > and <

Mathematical Language:

Numbers, zero, count, on, up, down, to, from, before, after, next, more, less, many, few, fewer, greater, equal to, the same as, value, odd, even, pair, ones, tens, digit, figures, compare, larger, largest, smaller, smallest, between, above, below, least

Development steps:

NOTE: these steps are not necessarily listed in order, nor are they the focus for a whole lesson in some cases. They are listed to support elements that need to be explored at some point.

NOTE: these first elements are all explored in F2, therefore it is essential sufficient challenge is offered here to deepen understanding of number concepts and values.

- Sorting and counting objects.
- Representing objects.
- Count, read, write forwards from any number 0 to 10
- Count forwards and backwards numbers and write numbers to 20 in numerals and words.
- Count one more and one less (ensure this is building on F2)
- One to one correspondence to start to compare groups
- Compare groups using language such as equal, more, greater, less, fewer
- Count in 2's
- Count in 5's
- Count to 50 and 100
- One more and one less within 50 and within 100
- Introduce <, > and =
- Tens and ones
- Represent numbers to 50 and 100
- Compare numbers to 50 and 100
- Order groups of objects
- Order numbers to 50 and 100
- Partitioning numbers

Other links:

- Numerals on clocks and calendars.
- Counting the days in a week/month/months in the year etc.
- Counting in different measurements, eg cm,
- Counting in 5ps and 2ps.
- Recognising numbers on money and finding their value on a number line.
- Using a number line/ruler to read numbers and measure length.
- Estimating the number of objects
- Ordering a range of measures – ordering scale measurements, ordering money amounts, tens and one representations
- Partitioning - using 10ps and 1ps to represent tens and ones as well as base 10/straws etc.
- Counting/sorting shapes
- Odd and even measure amounts - money, measures
- Counting in tens – 10p, 10cm

Contexts/resources:

Ages of family members and friends, Numerals as labels on buses, car etc., telephone numbers, Page numbers in books and magazines (ordinal), Games of all kinds, e.g. board games, computer games, football scores, Preparing for parties, planning activities and events, counting supplies, Numicon, Use of Story books, A Place for zero, Equal Shmequal, One is a snail, ten is a crab, Top Trumps, Presents in a sack, Order by age, link to tally charts counting in 5's.

White Rose Schemes of Learning:

<https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/>

NCTEM:

https://www.ncetm.org.uk/public/files/23305594/Mastery_Assessment_Y1_Low_Res.pdf

NRICH:

<https://nrich.maths.org/content/id/13291/EYFSKS1CurriculumLinkedtoNRI%20CH.pdf>



HCAT Maths Year on a Page

Year 1 – Curriculum Guide – Addition & Subtraction



National Curriculum Objectives:

- Read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs
- Represent and use number bonds and related subtraction facts within 20
- Add and subtract one-digit and two-digit numbers to 20, including zero
- Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$.

Misconceptions:

- Inaccurate counting skills
- Misunderstands meaning of ‘one more’ and ‘one less’
- Does not relate the combining of groups of objects to addition and/or does not interpret the counting of all of the objects as an answer to the question
- Is not confident about when to stop counting when taking away (subtracting) in answer to the question ‘How many are left?’
- Has difficulty with identifying doubles and adding a small number to itself, for example $2 + 2$, to make twice as many.
- Makes unequal groups and is unable to compare the groups.
- Has difficulty with counting reliably in tens from a multiple of ten.
- When counting on, putting the ‘number in your head’ on your finger.
- Misreading and understanding number sentences, especially in fact families E.g. knowing $7+3 = 10$, therefore assuming $10 + 3 = 7$

Mathematical Language:

Number bonds, number line, Add, more, plus, make, sum, total, altogether, Inverse, Double, near double, Half, halve, Equals, is the same as (including equals sign), Difference between, How many more to make..?, how many more is...than..?, how much more is..?, Subtract, take away, minus, How many fewer is...than..?, how much less is..?

Development steps:

NOTE: these steps are not necessarily listed in order, nor are they the focus for a whole lesson in some cases. They are listed to support elements that need to be explored at some point.

- Part-Whole Model – the concept of + and − and how they link together.
- Fact families – addition facts
- Find number bonds within 10 (including bonds to 5,6,7,8,9 – not just 10)
- Systematic methods for number bonds
- Compare number bonds
- Addition- adding together
- Addition- adding more
- Finding a part (I have 3, I need 8, how many more do I need)
- Subtraction taking away, how many left? (crossing out)
- Subtraction finding part, breaking apart
- Subtraction- finding the difference
- Subtraction – counting back
- Comparing addition and subtraction statements $a+b < c$
- Comparing addition and subtraction statements $a+b < c+d$
- Fact families the 8 facts ($3+2=5$, $2+3=5$, $5=3+2$, $5=2+3$, $5-2=3$, $5-3=2$, $3=5-2$, $2=5-3$)

Other links:

- 1 more/1less/10more/10less
- Place value - Presenting calculations in words Eg. seven plus four =
- Money (p) amounts
- Adding coins
- Measures – integrate names of the units, eg. Grams, litres, cm, m etc.
- Statistics – bar charts and pictograms – how many, total, altogether, how many more.
- Adding number of sides/vertices on 2d and vertices and faces of 3d shapes.
- Calendar addition and subtractions
- Time – addition and subtraction of minutes.

Contexts/resources:

Money (p), Shopping , Length of items, Use of children’s interests eg. Dinosaurs, school, animals, sweets, Events (tickets), Bar charts, Toy Shop, Children's wish list shopping, Adding money cafe, holding a school fayre, birthday birthday planning, jobs that link to adding and subtracting (real life).

NCTEM tasks and activities

https://www.ncetm.org.uk/public/files/23305607/Mastery_Assessment_Y3_High_Res.pdf

NRICH

<https://nrich.maths.org/content/id/13291/EYFSKS1CurriculumLinkedtoNRICH.pdf>

White Rose Materials

<https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/>



HCAT Maths Year on a Page

Year 1 – Curriculum Guide – Multiplication & Division



National Curriculum Objectives:

Pupils should be taught to:

- Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

Misconceptions:

- Lack of understanding vocabulary.
- Seeing an array as a collection of one.
- Linking up multiplying by 2 and doubling.
- Understanding that the number gets bigger when multiplying and smaller when dividing
- Understanding what an equal group is
- Recognising that multiplying is the same as repeated addition.

Mathematical Language:

Numbers, grouping, sharing, multiply, halve, fractions, equal, groups, divide, lots of, groups of, once, twice, three times, multiples, odd, even, count in twos, fives, tens, on from, back from, How many times? times, multiply, , repeated addition, array, row, column, equal groups of.

Development steps:

NOTE: these steps are not necessarily listed in order, nor are they the focus for a whole lesson in some cases. They are listed to support elements that need to be explored at some point.

NOTE: these first elements are all explore in F2, therefore it is essential sufficient challenge is offered here to deepen understanding of number concepts and values.

- Count in 2s, 5s and 10s
- Make equal groups
- Add equal groups
- Make arrays
- Make doubles
- Make equal groups-Grouping
- Make equal groups- Sharing

Other links:

- When shopping find quantities in multiple purchases, sales prices, sharing costs.
- Piece of string: Converting units of measure (10 lots of 10 cm= 1m.)
- Interpreting and evaluating data, calculating amounts from pie charts and pictograms.
- Addition and subtraction
- Place value - number line, ordering and sequencing.
- Multiplying shapes
- Representing in a variety of ways- Repeated addition, repeated subtraction, arrays.

Contexts/resources:

Socks, hands, using children’s character families to multiply and divide, e.g. Simpsons, using the days of the week to divide by, using people, stories, petals on a flower, shapes. The Doorbell Rang story (Sharing cookies).

Sticks, Numicon, Tens frame, Number lines, base 10, number flashcards, coins counters, bead strings, counting sticks, dice, Double Dave (book) Two of everything (book). Sharing food items, dinosaurs / park enclosures, feeding animals- sharing out pellets, Christmas dinner/Sunday dinner, class resources how many do we need/cut etc.

White Rose Schemes of Learning

<https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/>

NCETM

https://www.ncetm.org.uk/public/files/23305594/Mastery_Assessment_Y1_Low_Res.pdf

NRICH

<https://nrich.maths.org/content/id/13291/EYFSKS1CurriculumLinkedtoNRICH.pdf>



HCAT Maths Year on a Page

Year 1 – Curriculum Guide – Fractions, Decimals and Percentages



National Curriculum Objectives:

- Recognise, find and name a half as one of two equal parts of an object, shape or quantity
- Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.

Misconceptions:

- Not understanding that fractions need to be split into EQUAL values.
- Fraction parts can be equal yet look slightly different.
- Misunderstanding the numerator and denominator.
- Thinking $\frac{1}{4}$ has a larger value than $\frac{1}{2}$ because the denominator is larger, when the wholes are the same size,
- Knowing that $\frac{1}{2}$ is not always larger than $\frac{1}{4}$ - it depends on the value of the whole.

Mathematical Language:

Fraction, equal, part, whole, half, quarter, share, divide, two quarters, three quarters, four quarters, two halves,

Development steps:

NOTE: these steps are not necessarily listed in order, nor are they the focus for a whole lesson in some cases. They are listed to support elements that need to be explored at some point.

- Understand a fraction is a part of a whole
- Halving shapes or objects into equal parts.
- Halving a quantity
- Finding a quarter of a shape or objects
- Find a quarter of a quantity

Other links:

- Make links to division – sharing into equal groups.
- Make links to double and half.
- Counting in halves and quarters on counting stick.
- $\frac{1}{2}$, 1 whole, 1whole and $\frac{1}{2}$, 2 wholes etc.
- Finding halves and quarters of measures – eg 12cm straws. Locating halfway and quarter point of a journey map.
- Finding half and quarter of money amounts.
- Capacity – finding half and quarter of liquid.
- Geometry – halves and quarters of shapes.
- Half turn and quarter turn (feed into PE)
- Clocks – half past, quarter past
- Word problems

Contexts/resources:

- Fractions of shapes, pizza's cakes, chocolate/sweets/fruit food items. Fractions, of length/measures/journeys. Maths stories that look at fractions
- Give me half: <https://www.youtube.com/watch?v=hVaxiJB6Fls>
- Practically finding half of measures eg. 20cm string – cutting half and quarter.
- Would you rather problems, sharing food for party, fraction of food, decimals - pounds and pence

White Rose Schemes of Learning

<https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/>

NCTEM

https://www.ncetm.org.uk/public/files/23305594/Mastery_Assessment_Y1_Low_Res.pdf

NRICH

<https://nrich.maths.org/content/id/13291/EYFSKS1CurriculumLinkedtoNRICH.pdf>



HCAT Maths Year on a Page

Year 1 – Curriculum Guide – Geometry



<u>National Curriculum Objectives:</u> Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].	<u>Misconceptions:</u> - Names of the different shapes – vocabulary - Understanding of what 2D and 3D shapes are – To know that 2D shapes are flat - To know that the shapes can be different sizes – show a variety of orientations - Not all triangles are equilateral - Counting the same side more than once (need to mark off)	<u>Mathematical Language:</u> Position, Over, under, underneath, above, below, top, bottom, side, on, in, outside, inside, around, in front, behind, front, back, Before, after, Beside, next to, Opposite, Apart, Between, middle, edge, centre, Corner, Direction, Journey, Left, right, up, down, forwards, backwards, sideways, Across, Close, far, near, Along, through, Movement, Slide, roll, turn, whole turn, half turn
<u>Development steps:</u> NOTE: these steps are not necessarily listed in order, nor are they the focus for a whole lesson in some cases. They are listed to support elements that need to be explored at some point. - Recognise and name 3D shapes - Sort 3D shapes - Recognise and name 2D shapes - Sort 2D shapes - Patterns with 3D and 2D shapes	<u>Other links:</u> - Multiplying – e.g., counting the amount of sides of 3 triangles. - Adding the sides of all the shapes - Subtracting – can you take away 4 squares? If I take away one side, what shape would I have? - Place value – counting sides or shapes - Outdoor learning – finding shapes - Measuring – the size of shapes - Money - Shape of coins - Fractions – how many red triangles out of them all? - Statistics – pictograms using shapes - Exploring difference between length of shapes/shape measures.	<u>Contexts/resources:</u> - Feely bag, shapes, sorting hoops, objects, coins, rulers, - Shapes of real life objects – clock/circular, the window/rectangular - Explore how shapes are used in art and design, and in religious and cultural symbols - Outdoor environment - Math's story – the greedy triangle, patterns for wrapping paper, puzzles, designing a specific box, position and direction PacMan. <u>White Rose Schemes of Learning</u> https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/ <u>NCETM</u> https://www.ncetm.org.uk/public/files/23305594/Mastery_Assessment_Y1_Low_Res.pdf <u>NRICH</u> https://nrich.maths.org/content/id/13291/EYFSKS1CurriculumLinkedtoNRICH.pdf



HCAT Maths Year on a Page

Year 1 – Curriculum Guide – Measures



National Curriculum Objectives:

- Compare, describe and solve practical problems for:
- Lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
- Mass/weight [for example, heavy/light, heavier than, lighter than]
- Capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
- Time [for example, quicker, slower, earlier, later]
- Measure and begin to record the following:
- Lengths and heights
- Mass/weight
- Capacity and volume
- Time (hours, minutes, seconds)
- Recognise and know the value of different denominations of coins and notes
- Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
- Recognise and use language relating to dates, including days of the week, weeks, months and years
- Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

Misconceptions:

- Understanding that the point of measure is the line and not the space.
- Understand how to use equipment correctly.
- Not recording the correct unit.
- Understanding that there are 60 minutes in 1 hours and not 100.
- Misunderstanding size for weight/ height for capacity.
- When measuring ensure the ruler is lined up at the correct starting point.

Mathematical Language:

Full, half full, empty, holds, container, weigh, weighs, balances, heavy, heavier, heaviest, light, lighter, lightest, scales, time, days of the week, seasons, day, week, month, year, weekend, birthday, morning afternoon, evening, night, midnight, Bedtime, dinnertime, playtime, Today, yesterday, tomorrow, Before, after, Next, last

Now, soon, early, late, Quick, quicker, quickest, quickly, fast, faster, fastest, slow, slower, slowest, slowly, old, older, oldest, new, newer, newest, takes longer, takes less time, Hour, o'clock, half past, Clock, watch, hands, Always, never, often, sometimes, usually, Once, twice, First, second, third, etc. Estimate, close to, about the same as, just over, just under, Too many, too few, not enough, enough, Length, width, height, depth, Long, longer, longest, short, shorter shortest, tall, taller, tallest, high, higher, highest

Low, wide, narrow, deep, shallow, thick, thin, Far, near, close Metre, ruler, metre stick, Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear(er), costs more, costs less, cheaper, costs the same as, Total.

Development steps:

NOTE: these steps are not necessarily listed in order, nor are they the focus for a whole lesson in some cases. They are listed to support elements that need to be explored at some point.

NOTE: these first elements are all explore in F2, therefore it is essential sufficient challenge is offered here to deepen understanding of number concepts and values.

- Compare lengths and height
- Measure length
- Introduce weight and mass
- Measure mass
- Compare mass
- Introduce capacity and volume
- Measure capacity
- Compare capacity

Other links:

- Place Value – recognising tens and ones in measurements.
- Using < > and = to compare measures
- Counting in measures. Eg. Cm, 5p, 10p, minutes.
- Addition and subtraction of months/days in calendar maths
- Addition/Subtraction of measures Eg. add up the weight of luggage to check it is within baggage allowances/ how many shelves can be made out of a given length of wood?
- Fractions – language of half, quarter, three quarters
- Statistics – bar charts of measurements.
- Calculating difference between measurements.
- Doubling/halving measurements
- Measuring the length of shape sides.

Contexts/resources:

- Measuring distances for long jumps.
- Train/bus timetables, how long is it until lunch?
- Weighing/ measuring ingredients for baking.
- Which coins will I need to buy an item?
- Haow tall we are? ordering class, measures in baking, science experiments.
- Cubes, rulers, meter sticks, tape measures, a variety of containers, clock, money, calendar.

White Rose Schemes of Learning

<https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/>

NCTEM

https://www.ncetm.org.uk/public/files/23305594/Mastery_Assessment_Y1_Low_Res.pdf

NRICH

<https://nrich.maths.org/content/id/13291/EYFSKS1CurriculumLinkedtoNRICH.pdf>