



An Daras Multi Academy Trust
Windmill Hill Academy, Launceston

Integrated Curriculum Scheme of Work updated November 2017	
Domain of Learning:	<i>Mathematics</i>
National Curriculum Subjects:	<i>Mathematics</i>
Domain Leader:	<i>Written by Miss Osborne</i>
Agreed and Approved:	
Leader In Year Review Dates:	
Related Documents and Guidance:	National Curriculum 14 Year Group Non-Negotiable 14 Mathematics Policy 15 KS1 Mathematics Calculation Policy LKS1 Mathematics Calculation Policy HKS2 Mathematics Calculation Policy Mathematics Curriculum Statement 18



Mathematics at Windmill Hill Academy 2018

At Windmill Hill Academy, children receive a rich and progressive mathematics curriculum with an emphasis on teaching and learning through a 'mastery' approach. We believe that Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, to reason and to solve problems. In our school we want to help children to understand and appreciate the pattern in both number and space in their everyday lives in and out of school. We encourage the children to develop these key and fundamental skills through their growing knowledge and understanding of the world.

The National Curriculum for primary mathematics has three aims that are at the heart of how we interpret the content of the curriculum.

- **Conceptual understanding:**

In developing children's skills through enhancing their factual, conceptual and procedural knowledge, we allow them to deepen their mathematical understanding and be able to apply what they know to help them to solve problems.

- **Mathematical reasoning:**

The progression and development of mental calculations and efficiency in strategies will provide children with the skills which will allow them to communicate and present their findings effectively using appropriate mathematical language.

- **Problem solving:**

At Windmill Hill Academy, Mathematics is integral to all aspects of life and it is with this in mind that we ensure that children develop self-confidence in their ability to approach a range of mathematical problems.

By providing opportunities to apply their mathematical skills in different contexts and across a range of subject areas, children will be able to work systematically to organise information, find patterns and ultimately solutions through independent and collaborative learning.

Teaching of Mat

Mathematics follows the National Curriculum and reflects changes introduced in 2014 (for 2014-2015 Years 2 and 6 will largely continue to follow the previous curriculum as outlined by government policy and move towards the new curriculum in the summer

term) for Key Stages 1 and 2 and the Curriculum for EYFS.

Assessment

- In the EYFS, children's achievements are on-going and are assessed against the Early Learning Goals.
- Levels were previously being used to assess children in KS1 and KS2. However, the school is now working towards making judgements about the children's numeracy in relation to age related expectations as set out in the new curriculum.
- Assessment for learning is well established throughout the school and the use of questioning, observation and marking will continue to be key parts of formative assessment. KS2 pupils will also complete termly formative assessment papers.
- Statutory assessments take place at the end of Year 2 and Year 6.

Monitoring

Mathematics is led by Miss Osborne. She will update the curriculum governors on priorities and progress in Mathematics.

Year Group	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Academy Aims Link	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.

Year 1 Teaching Sequence and suggested small step guidance

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Wk1	(4wks) Number and Place value (within 10) *Sort objects *Count objects *Represent objects *Count, read and writing backwards from any number 0 to 10 *Count one more *Count one less *One to one correspondence to start to compare groups *Compare groups using language such as equal, more/greater, less/fewer *Introduce =,>,< symbols	-cont Number – Addition and Subtraction (within 10) *Subtraction: Finding a part, breaking apart *Fact families – The 8 facts (8 number sentences) – link between addition and subtraction – equals sign at start at end of calculation *Subtraction: Counting back *Subtraction: Finding the difference *Comparing addition and subtraction statements $a + b > c$ *Compare addition and subtraction statements $a + b > c + d$	(4wks) Number – Addition and Subtraction (within 20)	-cont Number and Place Value (within 50) (Multiples of 2,5 and 10 to be included) (2wks) Measurement: Length and Height	(3wks) Number: Multiplication and Division (Reinforce multiples of 2, 5 and 10 to be included)	(2wks) Number: Place Value (within 100)
Wk2						

Wk3		(1wk) Geometry and Shape *Recognise and name 3D shapes *Sort 3D shapes *Recognise and name 2D shapes] *Sort 2D shapes *Patterns with 3D and 2D shapes				(1wk) Measurement: Money
Wk4		(2wks) Number and Place Value (within 20)		(2wks) Measurement: Weight and	(2wks) Number: Fractions	(2wks) Measurement: Time

	Wk5	(4wks) Number – Addition and Subtraction (within 10) Small steps *Part whole mode *Addition symbol *Fact families – Addition facts *Find number bonds for numbers within 10 *Systematic methods for number bonds within 10	*Count forwards and backwards and write numbers to 20 in numerals and words *Numbers from 11 to 20 *Tens and ones *Count one more and one less *Compare groups of objects *Compare numbers *Order groups of objects *Order numbers	(3wks) Number and Place Value (within 50) (Multiples of 2,5 and 10 to be included)	Volume		
	Wk6	*Number bonds to 10 *Compare number bonds *Addition: Adding together *Addition: Adding more *Finding a part *Subtraction: Taking away, how many left? Introducing the subtraction symbol	(1wk) Consolidation		1wk) Consolidation	(1wk) Geometry: Position and Direction	(1wk) Consolidation
Year 1							
National Curriculum Pages 6-10							
Statutory Requirements							
Number: Number and Place Value							

<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • 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.
Number: addition and subtraction
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • 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 $7 = \quad - 9$.
Number: multiplication and division
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • 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.
Number: Fractions
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • 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.
Measurement:

Pupils should be taught to:

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.

Geometry: Properties of shape

Pupils should be taught to:

- 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].

Geometry: Position and direction

Pupils should be taught to:

- describe position, direction and movement, including whole, half, quarter and three-quarter turns.

Cross curricular links	Aut 1	Aut2	Spr 1	Spring 2	Summer 1	Summer 2
	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety. Using mathematical language of forwards, backwards, Left & right</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety Science - At given opportunities to apply maths for counting and measuring.</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety Science - At given opportunities to apply maths for counting and measuring.</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety Science - At given opportunities to apply maths for counting and measuring.</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety Science - At given opportunities to apply maths for counting and measuring.</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety Science - At given opportunities to apply maths for counting and measuring.</p>

Assessment Pathways

- ASFL embedded into everyday classroom practice.
- Pupils are provided with opportunities to self-mark and review and responding to feedback / previous learning.
- Elicitation tasks or elicitation from assessment analysis informs unit and lesson planning.
- Moderation is to take place: internally and externally on a termly basis
- AWL grids to be kept for a minimum of 6 pupils to inform assessment and moderation.
- Half termly head start carried out half termly
- PUMA assessment carried out termly
- Subject lead carries out whole school analysis of formal assessments to help inform planning.
- Class teachers track GDS, vulnerable pupils and pupils at risk of not achieving Exp and use to inform interventions(see class provision maps)
- Half termly data drop on track
- Statutory assessment at the end of Y2 and Y6

Year 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Academy Aims Link	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.

Year 2 Teaching Sequence and suggested small step guidance

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Wk1	(3wks) Number and Place value *Count objects to 100 and read and write numbers in numerals and words *Represent numbers to 100 *Tens and ones in a part whole model *Tens and ones using addition *Use a place value chart *Compare numbers *Order objects and numbers *Count in 2s,5s and 10s *Count in 3s	-cont Number – Addition and Subtraction *Add two 2-digit numbers – not crossing ten – add ones and add tens *Add two 2-digit numbers – crossing ten – add ones and add tens *Subtract a 2-digit number from a 2-digit number – not crossing ten *Subtract a 2-digit number from a 2-digit number – crossing ten – subtract ones and tens *Bonds to 100 (tens and ones) *Add three 1-digit number	-cont Number: Multiplication and Division *Recognise equal groups *Make equal groups *Add equal groups *Multiplication sentences using the \times symbol *Multiplication sentences from pictures *Use arrays *2 times-table *5 times-table *10 times-table	-cont Geometry: Properties of Shape) (3wks) Number: Fractions	(3wks) Position and Direction	-cont Measurement: Time (3wks) Measurement: Mass, Capacity and Temperature

Wk3		(2wks) Measurement: Money *Count money – pence *Count money – pounds (notes and coins) *Count money – notes and coins *Select money *Make the same amount *Compare money *Find the total *Find the difference *Find change *Two-step problems	(2wks) Statistics			
Wk4	(5wks) Number – Addition and Subtraction *Fact families – Addition and subtraction bonds to 20 *Check calculations *Compare number sentences *Related facts *Bonds to 100 (tens) (Add and subtract 1s)				(2wks) Problem solving and efficient methods	
Wk5	*10 more and 10 less *Add and subtract 10s	(4wks) Number: Multiplication and Division	(3wks) Geometry: Properties of Shape	(1wk) Measurement: length and height		(2wks) Investigations

Wk6	*Add a 2-digit and 1-digit number – crossing ten *Subtract a 1-digit number from a 2-digit number – crossing ten			(1wk) Consolidation	(3wks) Measurement: Time	
Year 2 National Curriculum Pages 11 to Statutory Requirements						
Number: Number and Place Value						
Pupils should be taught to: <ul style="list-style-type: none"> • count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward • recognise the place value of each digit in a two-digit number (tens, ones) • identify, represent and estimate numbers using different representations, including the number line • compare and order numbers from 0 up to 100; use and = signs • read and write numbers to at least 100 in numerals and in words • use place value and number facts to solve problems. 						
Number: addition and subtraction						
Pupils should be taught to: *solve problems with addition and subtraction: <ul style="list-style-type: none"> • using concrete objects and pictorial representations, including those involving numbers, quantities and measures • applying their increasing knowledge of mental and written methods *recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 *add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> • a two-digit number and ones • a two-digit number and tens • two two-digit numbers • adding three one-digit numbers * show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot * recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.						
Number: multiplication and division						

<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
Number: Fractions
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity write simple fractions for example, $\frac{1}{2}$ of $6 = 3$ and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.
Measurement:
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$ recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value find different combinations of coins that equal the same amounts of money solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change compare and sequence intervals of time tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times know the number of minutes in an hour and the number of hours in a day
Geometry: Properties of shape
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] compare and sort common 2-D and 3-D shapes and everyday objects.
Geometry: Position and direction
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> order and arrange combinations of mathematical objects in patterns and sequences use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).
Statistics

Pupils should be taught to:

- interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
- ask and answer questions about totalling and comparing categorical data.

Cross curricular links	Aut1	Aut2	Spring 1	Spring 2	Summer 1	Summer2
	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing: geometry and position for creating algorithms</p> <p>Role play (Trains): money and time.</p> <p>DT: measurement (making transport using mechanisms).</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Science: plants (measurement).</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing: data logging in relation to plants (statistics)</p> <p>Science: plants (measurement).</p> <p>DT: cooking (measurement – mass).</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing: living things (statistics)</p> <p>Geography: compass points.</p> <p>PE: athletics (measurement).</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing: living things (statistics)</p> <p>Geography: compass points.</p> <p>PE: athletics (measurement).</p>

Assessment Pathways

- ASFL embedded into everyday classroom practice.
- Pupils are provided with opportunities to self-mark and review and responding to feedback / previous learning.
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- Moderation is to take place: internally and externally on a termly basis
- AWL grids to be kept for a minimum of 6 pupils to inform assessment and moderation.
- Half termly head start carried out half termly
- PUMA assessment carried out termly
- Subject lead carries out whole school analysis of formal assessments to help inform planning.
- Class teachers track GDS, vulnerable pupils and pupils at risk of not achieving Exp and use to inform interventions(see class provision maps)
- Half termly data drop on track
- Statutory assessment at the end of Y2 and Y6

Year 3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Academy Aims Link	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.

Year 3 Teaching Sequence and suggested small step guidance

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Wk1	(3wks) Number and Place value *Hundreds *Represent numbers to 1,000	-cont Number – Addition and Subtraction *Add and subtract a 2-digit and 3-digit number – not crossing 10 or 100	(3wk) Number: Multiplication and Division	(3wks) Measurement: Length and Perimeter	(3wks) Number: Fractions	(2wks) Geometry- Properties of Shape
Wk2	*100s, 10s, and 1s (1 understanding) *100s, 10s, and 1s (2 representing) *Number line to 1,000 *Find 1,10,1000 more or less than a given number. *Compare numbers to 1,000 *Order numbers *Count in 50s	*Add a 2-digit and 3-digit number – crossing 10 or 100 *Subtract a 2-digit number from a 3-digit number – cross the 10 or 100 *Add two 3-digit numbers – not crossing 10 or 100 *Add two 3-digit numbers – crossing 10 or 100 *Subtract a 3-digit number from a 3-digit number – no exchange *Subtract a 3-digit number from a 3-digit number – exchange *Estimate answers to calculations *Check				

Wk3							
Wk4	(5wks) Number – Addition and Subtraction *Add and subtract multiples of 100 *Add and subtract 3-digit numbers and ones – not crossing 10	(4wks) Number: Multiplication and Division *Multiplication – equal groups *Multiplying by 3 *Dividing by 3 *The 3 times-table		(1wk) Measurement: Money	Number: Fractions	(3wks) Measurement: Time	(3wks) Measurement: Mass and Capacity
Wk5	*Add 3-digit and 1-digit numbers – crossing 10 *Subtract a 1-digit number from a 3-digit number – crossing 10 *Add and subtract 3-digit numbers and tens – not crossing 100	*Multiplying by 4 *Dividing by 4 *The 4 times-table *Multiplying by 8 *Dividing by 8 *The 8 times-table		(2wks) Statistics			
Wk 6	*Add a 3-digit number and tens – crossing 100 *Subtract tens from a 3-digit number – crossing 100 *Add and subtract 100s *Spot the pattern – making it explicit	Consolidation			Consolidation		Consolidation

Year 3	National Curriculum Pages 18 to 23 Statutory Requirements
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Number: Number and Place Value

Pupils should be taught to:

- count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
- recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
- compare and order numbers up to 1000
- identify, represent and estimate numbers using different representations
- read and write numbers up to 1000 in numerals and in words
- solve number problems and practical problems involving these ideas.

Number: addition and subtraction

Pupils should be taught to:

- **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
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Pupils should be taught to:

- 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 that 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 objects.

Number: Fractions

Pupils should be taught to:

- count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10
- recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit fractions with small denominators
- recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
- recognise and show, using diagrams, equivalent fractions with small denominators
- add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]
- compare and order unit fractions, and fractions with the same denominators
- solve problems that involve all of the above.

Measurement:

Pupils should be taught to:

- measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
- measure the perimeter of simple 2-D shapes
- add and subtract amounts of money to give change, using both £ and p in practical contexts
- tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
- estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight
- know the number of seconds in a minute and the number of days in each month, year and leap year
- compare durations of events [for example to calculate the time taken by particular events or tasks].

Geometry: Properties of shape

Pupils should be taught to:

- draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them
- recognise angles as a property of shape or a description of a turn
- identify right angles, recognise 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 than or less than a right angle
- identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

Statistics

Pupils should be taught to:

- interpret and present data using bar charts, pictograms and tables
- solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.

<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> order and arrange combinations of mathematical objects in patterns and sequences use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise). 	<p>Aut1</p> <p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>*Science - Gathering data and presenting in a bar graph. Opportunities to measure length during forces experiment. *PE: during games, devise and explain scoring systems. Fractions: <i>halves/quarters/thirds of a pitch/ court/game</i></p>	<p>Aut2</p> <p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>D.T- weighing ingredients , using ratios to calculate quantities of ingredients</p> <p>*PE - during swimming: record times taken to complete width/length of pool. How much can you improve? Work out comparisons against previous best and recognise improvement over time: <i>can individual children recognise improvement over time?</i> During gymnastics: Investigating patterns: <i>when jumping, jump and curl, jump and stretch, etc</i> Developing sequences: <i>1st do a jump, 2nd do a roll and 3rd do a twist, repeat the pattern five times.</i></p>	<p>Spring 1</p> <p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>PE - in dance Sequencing, including pace and speed: first start your movement slowly, then make your movement faster, next make your movement very fast and finally slow your movement down, repeat the sequence three times</p>	<p>Spring 2</p> <p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>PE – in outdoor adventurous- in outdoor adventure, estimating distances apart and where it is safe to jump, move without interfering with each other</p> <p>DT -Accurate measuring and drawing lines in cm and mm.</p>	<p>Summer 1</p> <p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>History /art researching and creating Roman mosaics</p> <p>PE - during striking and fielding devise and explain scoring systems.</p>	<p>Summer2</p> <p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>Geography – collecting information on how our location has changed over time. Recording the data in order to analyse.</p> <p>PE- Work out comparisons against previous best and recognise improvement over time: <i>can individual children recognise improvement over time? Can they identify which is the furthest throw, which is the fastest run over 50 metres?</i> Work out combined distances/times for group: <i>which group has thrown the furthest? Which group the quickest combined total for a run over a given distance?</i> Work out speeds using simple formulae</p>
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Statistics

- ASFL embedded into everyday classroom practice.
- Pupils are provided with opportunities to self-mark and review and responding to feedback / previous learning.
- Elicitation tasks or elicitation from assessment analysis informs unit and lesson planning.
- Moderation is to take place: internally and externally on a termly basis
- AWL grids to be kept for a minimum of 6 pupils to inform assessment and moderation.
- Half termly head start carried out half termly
- PUMA assessment carried out termly
- Subject lead carries out whole school analysis of formal assessments to help inform planning.
- Class teachers track GDS, vulnerable pupils and pupils at risk of not achieving Exp and use to inform interventions(see class provision maps)
- Half termly data drop on track
- Statutory assessment at the end of Y2 and Y6

<p>Academy Aims Link</p>	<p>ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>	<p>ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>	<p>ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>	<p>ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>	<p>ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>	<p>ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>
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	Year 4 Teaching Sequence and small step					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Wk1	(4wks) Number and Place value *Roman numerals to 100 *Round to the nearest 10 *Round to the nearest 100 *Count in 1,000s *1,000s, 100s, 10s, and 1s *1,000 more or less	-cont Number – Addition and Subtraction	(3wk) Number: Multiplication and Division	-cont Fractions	(2wks) Decimals	-cont Statistics
Wk2		Measurement: Length and Perimeter *Kilometres *Perimeter on a grid *Perimeter of a rectangle *Perimeter of rectilinear shapes				Geometry: Properties of Shape
Wk3		(3wks) Number: Multiplication and Division				
Wk4			(1wk) Measurement: Area			

	Wk5	(5wks) Number – Addition and Subtraction *Add and subtract 1s, 10s, 100s and 1000s *Add two 4-digit numbers – no exchange *Add two 4-digit numbers – one exchange *Add two 4-digit numbers – more than one exchange *Subtract two 4-digit numbers – no exchange	*Divide by 100 *Multiply by 1 and 0 *Divide by 1 *Multiply and divide by 6 *6 times-table and division facts *Multiply and divide by 9 *9 times-table and division facts *Multiply and divide by 7 *7 times-table and division facts	(4wks) Fractions		(1wk) Measurement: Time	Geometry: Position and Direction
	Wk 6	*Subtract two 4-digit numbers – one exchange *Subtract two 4-digit numbers – more than one exchange *Efficient subtraction *Estimate answers *Checking strategies	Consolidation		Consolidation	(2wks) Statistics	Consolidation
Year 4							
National Curriculum Pages 24 to 29 Statutory Requirements							
Number: Number and Place Value							

Pupils should be taught to:

- count in multiples of 6, 7, 9, 25 and 1000
- find 1000 more or less than a given number
- count backwards through zero to include negative numbers
- recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
- order and compare numbers beyond 1000
- identify, represent and estimate numbers using different representations
- round any number to the nearest 10, 100 or 1000
- solve number and practical problems that involve all of the above and with increasingly large positive numbers
- read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.

Number: addition and subtraction

Pupils should be taught to:

- add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- estimate and use inverse operations to check answers to a calculation
- solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why

Number: multiplication and division

Pupils should be taught to:

- recall multiplication and division facts for multiplication tables up to 12×12
- use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
- recognise and use factor pairs and commutativity in mental calculations
- multiply two-digit and three-digit numbers by a one-digit number using formal written layout
- solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

Number: Fractions

Pupils should be taught to:

- recognise and show, using diagrams, families of common equivalent fractions
- count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
- solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- add and subtract fractions with the same denominator
- recognise and write decimal equivalents of any number of tenths or hundredths
- recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
- find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
- round decimals with one decimal place to the nearest whole number
- compare numbers with the same number of decimal places up to two decimal places
- solve simple measure and money problems involving fractions and decimals to two decimal places.

Measurement:

Pupils should be taught to:

- Convert between different units of measure [for example, kilometre to metre; hour to minute]
- measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- find the area of rectilinear shapes by counting squares
- estimate, compare and calculate different measures, including money in pounds and pence
- read, write and convert time between analogue and digital 12- and 24-hour clocks
- solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

Geometry: Properties of shape

Pupils should be taught to:

- compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
- identify acute and obtuse angles and compare and order angles up to two right angles by size
- identify lines of symmetry in 2-D shapes presented in different orientations
- complete a simple symmetric figure with respect to a specific line of symmetry.

Geometry: Position and Direction

Pupils should be taught to:

- describe positions on a 2-D grid as coordinates in the first quadrant
- describe movements between positions as translations of a given unit to the left/right and up/down
- plot specified points and draw sides to complete a given polygon.

Statistics:

- | |
|---|
| <ul style="list-style-type: none">• interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.• solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. |
| |

Cross curricular links	Aut1	Aut2	Spring 1	Spring 2	Summer 1	Summer2
	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>ICT – computing - using Scratch and algorithms to create a maths game (multiplication tables) Science – measuring / sound levels</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>DT- making accurate measurements (length – mm/cm) And exploring 2D/3D shapes and nets Music / PE (Dance) – creating repeating patterns and sequences</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>Science – animal and habitat decision trees, Carroll and Venn diagrams Geography – analysing and interpreting real life facts and figures linked to data on different countries Music / ICT – creating repeating patterns</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>Science – measuring heart rates DT – weighing / measuring mass and reading scales (g/kg) when cooking, using ratio and proportion to adapt recipes</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>History – using timelines, chronology Geography – comparing, ordering and rounding numbers (including river lengths - km) PE (OAA) – problem solving, direction and co-ordinates</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships E-safety</p> <p>PE – Athletics – measuring and calculating length / distances, converting between units (1m 57cm = 1.57m = 157cm) by multiplying dividing by 10/100 & measuring and ordering athletics times (minutes / seconds) Science / Geog / ICT – collecting weather data and creating / interpreting graphs (temperature and rainfall (mm))</p>

Assessment Pathways

- ASFL embedded into everyday classroom practice.
- Pupils are provided with opportunities to self-mark and review and responding to feedback / previous learning.
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- Subject lead carries out whole school analysis of formal assessments to help inform planning.
- Class teachers track GDS, vulnerable pupils and pupils at risk of not achieving Exp and use to inform interventions(see class provision maps)
- Half termly data drop on track
- Statutory assessment at the end of Y2 and Y6

Year 5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Academy Aims Link	<p>ADMAT:</p> <ul style="list-style-type: none"> *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>	<p>ADMAT:</p> <ul style="list-style-type: none"> *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>	<p>ADMAT:</p> <ul style="list-style-type: none"> *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>	<p>ADMAT:</p> <ul style="list-style-type: none"> *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>	<p>ADMAT:</p> <ul style="list-style-type: none"> *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>	<p>ADMAT:</p> <ul style="list-style-type: none"> *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>WHA :Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.</p>

Year 5 Teaching Sequence and suggested small step guidance

See White Rose

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Wk1	(3wks) Number and Place value *Number to 10,000 *Roman numerals to 1,000 *Round to the nearest 10, 100 and 1,000 *Number to 100,000 *Compare and order numbers to 100,000	-cont Statistics *Read and interpret line graphs *Draw line graphs *Use line graphs to solve problems *Read and interpret tables *Two way tables *Timetables	(3wk) Number: Multiplication and Division	-cont Fractions	(4wks) Number: Decimals	-cont Geometry: Properties of Shape
Wk2	*Round numbers within 100,000 *Numbers to a million	(2wks) Number: Multiplication and Division				(1wk) Geometry: Position and Direction

Wk3	<ul style="list-style-type: none"> *Counting in 10s, 100s, 1,000s, 10,000s and 100,000s *Compare and order numbers to a million *Round numbers to a million *Negative numbers 	<ul style="list-style-type: none"> *Multiples *Factors *Common factors *Prime numbers *Square numbers *Cube numbers *Inverse operations (Multiplication and Division) *Multiply by 10, 100 and 1,000 *Divide by 10, 100 and 1,000 *Multiply and divide by multiples of 10, 100 and 1,000 				(2wks) Measure: Converting Units
Wk4	(2wks) Number – Addition and Subtraction	Perimeter and Area *Measure perimeter	(6wks) Number: Fractions	(2wks) Number: Decimals and Percentages		

Wk5		*Calculate perimeter *Find unknown lengths *Area of rectangles *Area of compound shapes *Estimate and approximate area			(3wks) Geometry: Properties of Shape	(1wk) Measure: Volume
Wk 6	(2wks) Statistics	Consolidation		Consolidation		Consolidation
Statistics The National Curriculum p134 Pupils will be taught to:		** Solve comparison, sum and difference problems using information presented in a line graph * Complete, read and interpret information in tables, including timetables	Solve comparison, sum and difference problems using information presented in a line graph * Complete, read and interpret information in tables, including timetables			Solve comparison, sum and difference problems using information presented in a line graph

<p>Cross curricular links</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>Computing – We are game developers – using angles and measure to develop game E-safety</p> <p>Science – Earth and Space – planets distance from Sun</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>Computing - cryptographers – using prime numbers to code E-safety</p> <p>Science – Biomes – interpreting line graphs of temperature</p> <p>DT – Food – using metric/ imperial measures</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>E-safety</p> <p>Art – Printing/ collage – using tessellation, rotation and reflection to create patterns</p> <p>PE – gym/dance – using rotation of shape to create movement</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>E-safety</p> <p>DT – materials – using perimeter and area to ensure correct amount of material needed</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>E-safety</p> <p>Topic – Local study – using angles and measure during map reading; using degrees of turn reading a compass</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>Computing – we are architects – using units of measure to construct model buildings E-safety</p>
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Assessment Pathways	<ul style="list-style-type: none"> • ASFL embedded into everyday classroom practice. • Pupils are provided with opportunities to self-mark and review and responding to feedback / previous learning. • Elicitation tasks or elicitation from assessment analysis informs unit and lesson planning. • Moderation is to take place: internally and externally on a termly basis • AWL grids to be kept for a minimum of 6 pupils to inform assessment and moderation. • Half termly head start carried out half termly • PUMA assessment carried out termly • Subject lead carries out whole school analysis of formal assessments to help inform planning. • Class teachers track GDS, vulnerable pupils and pupils at risk of not achieving Exp and use to inform interventions(see class provision maps) • Half termly data drop on itrack • Statutory assessment at the end of Y2 and Y6
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Year 6	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Academy Aims Link	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.	ADMAT: *Accelerating and sustaining children's progress towards higher achievement. *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. Providing for children a safe, stimulating, caring but challenging learning environment. WHA : Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn.

Year 6 Teaching Sequence and suggested small step guidance

See White Rose

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Wk1	(2wks) Number and Place value	(4wks) Fractions *Simplify fractions Fractions on a number line *Compare and order fractions by the denominator *Compare and order fractions by the numerator *Add and subtract fractions (1) answers less than 1 – different denominators – find lowest common denominator	(2wks) Number: Decimals	(1wk) Measure: Converting Units	(2wks) Geometry: Properties of Shape	-cont Statistics
Wk2	*Numbers to ten million *Compare and order any number * Round any numbers *Negative numbers			(2wks) Measure: Perimeter, Area and Volume		(4wks) Investigations
Wk3	(4wks) Number – Addition, Subtraction, Multiplication and Division		(2wks) Number Percentages		(3wks) Problem Solving	
Wk4	*Add and subtract whole numbers *Multiply up to a 4- digit by 1-digit number *Short division *Division using	*Add and subtract fractions (2) addin fractions<1 – common denominators, applying to mixed numbers *Adding fractions *Subtracting fractions *Mixed addition and subtraction problems		(2wks) Number: Ratio		

	<p>factors</p> <p>*Long division (1) 3x2 no remainders</p> <p>*Long division (2) 3x2 becoming more efficient</p> <p>*Long division (3) remainders</p> <p>*Long division (4) 4-digits with remainders</p> <p>*Common factors</p> <p>*Common multiples Primes</p> <p>*Squares and cubes</p> <p>*Order of operations</p> <p>*Mental calculations and estimation</p> <p>*Reasoning from known facts</p>	<p>*Multiply fractions by whole number</p> <p>*Multiply fractions by fraction</p> <p>*Divide a fraction by a whole number (1) divide by whole numbers, where numerator where numerator is directly divisible by the divisor.</p> <p>*Divide a fraction by a whole number (2) divide by whole number, including mixed number fractions. Represent fraction and divide visually.</p> <p>*Four rules with fractions</p> <p>*Fraction of an amount</p> <p>*Fraction of an amount - finding the whole</p>					
Wk5		<p>(1wk) Geometry: Position and Direction</p> <p>*Coordinates in the first quadrant</p>	Number: Algebra				

		*Coordinates in four quadrants *Translations *Reflections					
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Wk 6		Consolidation		Consolidation	(2wks) Statistics	Consolidation
Cross curricular links	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>E-safety</p> <p>Computing – interactive maths games</p> <p>Science – electricity</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>E-safety</p> <p>DT – Food – using metric/imperial measures</p> <p>Computing – interactive maths games</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>E-safety</p> <p>Computing – interactive maths games</p> <p>PE – rotation and reflection of shapes</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>E-safety</p> <p>DT – Ancient Greek vases symmetry</p> <p>Computing – interactive maths games</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>E-safety</p> <p>Computing – interactive maths games</p> <p>PSHE – money</p> <p>Art – print symmetrical patterns/reflection/rotation/tessellation</p>	<p>English: spelling key term correctly *Promoting the use of mathematical language during lessons *Developing literacy through discussions</p> <p>Computing – at given opportunities: *problem solving tasks *practising of number skills *exploring patterns and relationships</p> <p>E-safety</p> <p>DT – London structures – measure</p> <p>Computing – interactive maths games</p> <p>PE – split time/ distance</p> <p>PSHE - money</p>
Assessment Pathways	<ul style="list-style-type: none"> ASFL embedded into everyday classroom practice. Pupils are provided with opportunities to self-mark and review and responding to feedback / previous learning. Elicitation tasks or elicitation from assessment analysis informs unit and lesson planning. Moderation is to take place: internally and externally on a termly basis AWL grids to be kept for a minimum of 6 pupils to inform assessment and moderation. Half termly head start carried out half termly 					

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| | <ul style="list-style-type: none">• PUMA assessment carried out termly• Subject lead carries out whole school analysis of formal assessments to help inform planning.• Class teachers track GDS, vulnerable pupils and pupils at risk of not achieving Exp and use to inform interventions(see class provision maps)• Half termly data drop on itrack• Statutory assessment at the end of Y2 and Y6 |
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