'The best way to learn maths is to do maths'

The Coverage Overview Guide is organised into each year group, providing a teaching sequence and estimated coverage of the National Curriculum.

The Ready to Progress Grids, breaks down each National Curriculum statement into small steps to success.

The Progression Grids outline the specific knowledge and skills which pupils are expected to learn in each year. Progression grids are organised into mathematical phases.

Mathematical Vocabulary Progression Grids, outline the specific vocabulary underpinning each mathematical phase.

Talk Mathematically, outlines example though provoking questions linked to the learning style of the maths task, including: Concrete, Pictorial, Abstract and Deepening.

Children will feel secure to try new mathematical concepts, make mistakes and learn through a **safe mathematically rich environment**. This is a **cumulative progression of skills**; whereby teachers will build upon prior knowledge and revisit skills continuously within different maths context year on year, to ensure pupils have learnt and retained the knowledge needed.

EYFS: Development Matters

Maths Coverage in Specific Areas

Mathematics

1. Count objects, actions and sounds.

2. Subitise.

3. Link the number numeral with its cardinal number value.

4. Count beyond 10.

5. Compare numbers.

6. Understand the 'one more than/less then' relationship between consecutive numbers.

7. Explore the composition of numbers to 10.

8. Automatically recall number bonds for number 0-10.

9. Select, rotate and manipulate shapes in order to develop spatial reasoning skills.

10. Compose and decompose shapes so that children recognise a shape can have shapes with in it, just as numbers can.

11. Continue, copy and create repeating pattern.

12. Compare length, weight & capacity.

ELG: Number

- Have a deep understanding of number to 10, including the composition of each number.

- Subitise (recognise quantities without counting) up to 5.

- Automatically recall number bonds up to 5, including subtraction facts and some number bonds to 10.

ELG: Numerical Patterns

- Verbally count beyond 20, recognising the patterns of the counting system.

- Compare quantities up to 10 different context, recognising when one quantity is greater than, less than or the same as the other quantity.

- Explore and represent patterns with numbers up to 10, including evens, odds, double facts and qualities can be distributed equally.

EYFS: Development Matters

Maths Coverage in Prime Areas

Communication and Language

- Learning new Vocabulary.

- Use talk to help work out problems and organise thinking .

- Use new vocabulary in different context.

- Listen carefully to rhymes–mathematically linked

- Learn Rhymes– mathematically linked. E.g. ten green bottles.

Physical Development

- Develop their small motor skills so that they can use a range of tools completely, safely and confidently.   Inc Pencils,   counting cubes, numicon etc

- ELG– Use a range of small tools, including scissors, paintbrushes, cutlery

Coverage Overview Guide EYFS

Supporting the ethos of the EYFS to develop their understanding of number, shape measure and spatial thinking.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Autumn	Getting to Know You			Just Like Me!			It's Me 1 2 3!			Light and Dark			Consolidation	
Spring	Alive in 5!			Growing 6, 7, 8			Building 9 and 10			Consolidation				
Summer	To 20 and Beyond			First Then Now			Find My Pattern			On The Move				

Coverage Overview Guide EYFS—Autumn Term

Week 1	Week 2	Week 3		Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Getting to Know You			Phase	Just Like Me!			It's Me 1 2 3!			Light and Dark		
Opportunities for settling in, introducing the areas of provision and getting to know the children.			Number	Match and Sort Compare Amounts			Representing 1, 2 & 3 Comparing 1, 2 & 3 Composition of 1, 2 & 3			Representing Numbers to 5. One More and Less.		
Key times of day, class routines. Exploring the continuous provision inside and out. Where do things belong? Positional language.			Measure, Shape and Spatial Thinking	Compare Size, Mass & Capacity Exploring Pattern			Circles and Triangles Positional Language			Shapes with 4 Sides. Time		

Coverage Overview Guide EYFS—Spring Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Phase	Alive in 5!			Growing 6, 7, 8			Building 9 & 10		
Number	Introducing zero Comparing numbers to 5 Composition of 4 & 5			6, 7 & 8 Combining 2 amounts Making pairs			Counting to 9 & 10 Comparing numbers to 10 Bonds to 10		
Measure, Shape and Spatial Thinking	Compare Mass (2) Compare Capacity (2)			Length & Height Time			3d-shapes Spatial Awareness Patterns		

Coverage Overview Guide EYFS—Summer Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Phase	To 20 and Beyond			First Then Now			Find my Pattern			On the Move		
Number	Building Numbers Beyond 10 Counting Patterns Beyond 10			Adding More Taking Away			Doubling Sharing & Grouping Even & Odd			Deepening Understanding Patterns and Relationships		
Spatial Thinking	Spatial Reasoning (1) Match, Rotate, Manipulate			Spatial Reasoning (2) Compose and Decompose			Spatial Reasoning (3) Visualise and Build			Spatial Reasoning (4) Mapping		

EYFS: Skills Progression
ELG Number: Small Steps to Progress

Number

Red – Covered in line with White Rose suggestion
Blue – Covered out of sequence with White Rose

Prior Knowledge - Development Matters – 3 – 4 Year Olds

Recite numbers past 5
Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle)

	Baseline (Sept)	Autumn (Dec)	Spring (April)	Summer (June)	ELG's	National Curriculum Links *Year 1 for Mathematics*
Understanding number to 10	Say one number for each item in order for a small amount (adult may assist in touch counting the objects to aid verbal counting). Show 'finger numbers' up to 5.	Touch objects individually to count to 5 Count out an amount of a given number to 5. Mark make for a given number to 5. Find one more or less than a given number to 10. It's 1,2,3, Light and Dark	Touch count objects individually to 10. Count out an amount of a given number up to 10. Represent numbers in a variety of ways e.g. numerical digits, lines, pictures ect Find one more or less than a given number to 10. Alive In 5, Growing 6,7 and 8, Building 9 and 10, To 20 and Beyond	Count mixed objects in a group (visually/ verbally). Recognise some number combinations that make up a number to 10. Recognise some representations of numbers to 10 without counting. Alive in 5	**Have a deep understanding of number to 10, including the composition of each number.**	Count objects to 10. Count to and across, forwards and backwards, beginning with 0 or 1, or any given number. Count one more for numbers within 20. Count one less for numbers within 20. Add and subtract one-digit and two-digit numbers to 20, including zero. Identify and represent numbers using objects and pictorial representations.
Subitise	Recognise objects as individual quantities.	Recognise quantities to 2 without counting in variety of contexts. It's 1,2,3, Light and Dark	Recognise quantities to 4 without counting in variety of contexts. Alive In 5 It's 1,2,3, Light and Dark	Recognise quantities to 5 without counting in variety of contexts. Subitise amounts in a mixed display e.g. groups in the same picture. Alive In 5 Growing 6,7 and 8	**Subitise (recognise quantities without counting up to 5).**	

EYFS: Skills Progression
ELG Number: Small Steps to Progress

<u>**Number**</u>

<u>Prior Knowledge - Development Matters – 3 – 4 Year Olds</u>

Recite numbers past 5
Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle)

	Baseline (Sept)	Autumn (Dec)	Spring (April)	Summer (June)	ELG's	National Curriculum Links
Number bonds	Verbally adds items by continuing to count when the object/group changes e.g. counting children's shoes	Recognise how to work out some addition number bonds for numbers 1-3. Recognise how to work out some subtraction number bonds for numbers 1-3. Growing 6,7 and 8, Building 9 and 10, First, Then, Now	Recognise how to work out some addition number bonds for numbers 1-5. Recognise how to work out some subtraction number bonds for numbers 1-3. Explain what a double is. Alive In 5 Building 9 and 10, First, Then, Now, Find My Pattern	Recall addition number bonds 1-5 Recognise how to work out some subtraction number bonds for numbers 1-3. Recall some doubles facts to 10. Recall some addition number bonds to 10. First, Then, Now Find my pattern Building 9 and 10.	**Automatically recall number bonds up to 5, including subtraction facts and some number bonds to 10 including doubles facts.**	Fact families – addition facts. Find number bonds for numbers within 10. Know systematic methods for number bonds within 10. Compare number bonds. Solve one step problems that involve addition and subtraction, using concrete or pictorial representations, and missing number problems. Represent and use number bonds and related subtraction facts within 20.

EYFS: Skills Progression
ELG Numerical Pattern: Small Steps to Progress

Numerical Patterns

Prior Knowledge - Development Matters – 3 – 4 Year Olds

Compare small quantities using relevant mathematical vocabulary
Talk about and recognise patterns around them
Recite numbers to 5

Red – Covered in line with White Rose suggestion
Blue – Covered out of sequence with White Rose

	Baseline (Sept)	Autumn (Dec)	Spring (April)	Summer (June)	ELG's	National curriculum Links *Year 1 for Mathematics*
Verbal Counting	Recite numbers to 5	Verbally count accurately to 10. Light and Dark Building 9 and 10	Verbally count accurately to 15 Beginning to recognise the number patterns between 1-15 Beginning to be able to verbally count in 2's to 10	Verbally count accurately beyond 20 Recognise the number patterns between 1-20 Able to verbally count in 2's and 5's to 10. Beginning to be able to use my pattern counting system to count to 20 and beyond in 2's and 5's To 20 and beyond	**Verbally count beyond 20, recognising the pattern of the counting system.**	Count forwards and backwards within 100, starting with any number. Count one more for numbers within 20. Count one less for numbers within 20. Compare numbers within 10. Order numbers up to 10. Count in 2's within 50. Count in 5's within 50. Count in 10s.
Comparing quantities	Compare quantities using mathematical language e.g. more, less.	Understand the language of one more and one less then. Recognise that there are symbols one more and one less then and equals. Light and Dark	Find one more and one less than to 5. Recognise the symbol for equals. Light and Dark	Recognise the symbol for less than. Find one more and one less than to 10 using different quantities. Growing 6,7 and 8	**Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.**	Compare up to 10 objects. Introduce more than, less than and equals to symbols for numbers within 10. Compare groups of objects within 20. Order groups of objects.

EYFS: Skills Progression
ELG Numerical Pattern: Small Steps to Progress

Numerical Patterns

Prior Knowledge - Development Matters – 3 – 4 Year Olds
Compare small quantities using relevant mathematical vocabulary
Talk about and recognise patterns around them
Recite numbers to 5

Red – Covered in line with White Rose suggestion
Blue – Covered out of sequence with White Rose

	Baseline (Sept)	Autumn (Dec)	Spring (April)	Summer (June)	ELG's	National curriculum Links *Year 1 for Mathematics*
Patterns within 10	Solve real world mathematical problems with numbers up to 5.	Share objects into groups of two equally. Explore verbally counting in ones up to 10. Find my pattern	Share objects into groups of three equally. Explore verbally counting patterns in ones and twos up to 10. Explore double facts to 10. Find my pattern	Share objects into groups of up to 10. Explore and recognise verbal counting patterns in ones, twos, fives and tens. Recognise odd numbers to 10. Recall double facts up to 10.	**Explore and represent patterns with numbers up to 10, including evens and odds, double facts and quantities can be distributed equally.**	Count numbers to 100 in numerals, count in multiples of 2's, 5's and 10's. Compare groups of objects within 20. Solve one step problems that involve addition and subtraction, using concrete or pictorial representations, and missing number problems.

EYFS: Key Vocabulary, Skills & Questions

Autumn term: Just Like Me, It's Me1.2,3 , Light and Dark & additional maths skills integrated into this term.

Autumn Term:

Identified skills, mathematical vocabulary and thought provoking questions to aid learning in a mathematically rich learning environment.

	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Phase	Just Like Me!			It's Me 1 2 3!			Light and Dark		
Number	Match and Sort Compare Amounts			Representing 1, 2 & 3 Comparing 1, 2 & 3 Composition of 1, 2 & 3			Representing Numbers to 5. One More and Less.		
Measure, Shape and Spatial Thinking	Compare Size, Mass & Capacity Exploring Pattern			Circles and Triangles Positional Language			Shapes with 4 Sides. Time		

EYFS Autumn Knowledge Organiser

Key Vocab

Order	Square
Smallest	Circle
Largest	Triangle
Lighter	Rectangle
Heavier	Cuboid
Balance	Sphere
Sort	Cube
Rule	One
Match	Two
The same as	Three
Tallest (Tall)	More
Shortest (Short)	Less
Number Bonds	Count
5 frame	Add
Repeated pattern (pattern)	Subtract
Share	

Key Skills

- ❖ I can use my finger to touch count each object individually to 5
- ❖ I can verbally count to 10
- ❖ I can find one more than
- ❖ I can find one less then
- ❖ I can find which object is heavier/lighter
- ❖ I can sort objects
- ❖ I can match numerals to their different representations
- ❖ I can add two groups together to 3
- ❖ I can subtract an amount from 3
- ❖ I can share objects equally into two groups

Key Questions

- Which one is the tallest/shortest? How do you know?
- Which group has more/less? How do you know? Can you count them?
- How many are their altogether? Can you count them?
- Are these objects/numbers in order? Can you order them? Which one shall we start with?
- What shape face does this 3D shape have?
- Can you describe your repeated pattern? What would come next?
- How do you know which object is heavier/lighter?

EYFS: Key Vocabulary, Skills & Questions

Spring term: Alive in 5, Groing 6,7,8, Building 9 &10 & additional maths skills integrated into this term.

Spring Term:

Identified skills, mathematical vocabulary and thought provoking questions to aid learning in a mathematically rich learning environment.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Phase	Alive in 5!			Growing 6, 7, 8			Building 9 & 10		
Number	Introducing zero Comparing numbers to 5 Composition of 4 & 5			6, 7 & 8 Combining 2 amounts Making pairs			Counting to 9 & 10 Comparing numbers to 10 Bonds to 10		
Measure, Shape and Spatial Thinking	Compare Mass (2) Compare Capacity (2)			Length & Height Time			3d-shapes Spatial Awareness Patterns		

EYFS Spring Knowledge Organiser

Key Vocab

Zero	Parts
One	Measure
Two	Short/Thick/Thin/Long
Three	Heaviest
Four	Lighter
Five	Heavier than
Six	Lighter than
Seven	Capacity
Eight	Full
Nine	Empty
Ten	Nearly Full
Number	Half Full
More than	Nearly Empty
The same as	Balance
Less than	One more/less
Share	Groups of
Fair – Fairly	Add
More	Subtract
Fewer	Equal
Tallest	Total
Shortest	Number bonds
3D shape – shape names	Count on
Flat/ solid	Seconds
Corner/ edge /face / curved	Minute
Straight/ Round	O'clock
Vertical/Horizontal	Pattern

Key Skills

- ❖ I can use my finger to touch count each object individually to 10
- ❖ I can represent numbers to 10 in a variety of ways
- ❖ I can find one more/less than of a number to 10
- ❖ I can subitise small quantities within 10
- ❖ I can work out some addition facts to 5
- ❖ I can work out some subtraction facts to 3
- ❖ I can recognise what a double is
- ❖ I can recognise some number patterns to 15
- ❖ I can share objects equally into groups of 3
- ❖ I can verbally count in ones and twos
- ❖ I can understand the concept of time (seconds are smaller than minutes ect)

Key Questions

- Does your tower have more or less? How do you know? Can you make one the same?
- Does this have more/fewer/the same amount of dots ect?
- Can you show me more/less/the same as as this number?
- Which number is missing? How can you work it out? Can you put them in order?
- How can we split this number into two parts? Can you do it another way?
- I have... how many are hidden? How do you know?
- How full is the container? Which one is nearly empty ect?
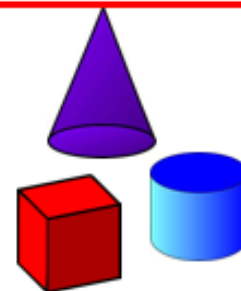- Which container do you think will hold more/less/the same as?

EYFS: Key Vocabulary, Skills & Questions

Summer term: To 20 and beyond, First Then Now, Find my Pattern, On the Move & additional maths skills integrated into this term.

Summer Term:

Identified skills, mathematical vocabulary and thought provoking questions to aid learning in a mathematically rich learning envi-

Phase												
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number	To 20 and Beyond		First Then Now			Find my Pattern		On the Move				
	Building Numbers Beyond 10 Counting Patterns Beyond 10		Adding More Taking Away		Doubling Sharing & Grouping Even & Odd			Deepening Understanding Patterns and Relationships				
Spatial Thinking	Spatial Reasoning (1) Match, Rotate, Manipulate		Spatial Reasoning (2) Compose and Decompose		Spatial Reasoning (3) Visualise and Build		Spatial Reasoning (4) Mapping					

EYFS Summer Knowledge Organiser

Key Vocab

Order	Vertical/Horizontal
The same	More than
Larger/Smaller	The same as
Pattern	Less than/ Fewer
5's /10's frame	Total
Number line	Add
Square	Subtract
Circle	Equals/Equal
Triangle	First/ Next/ Finally
Rectangle	Before/ After
Heart	Double
Pentagon	Share
Diamond	Group
Hexagon	Fair
Oval	Even
Star	Odd
Heptagon	Pattern (Repeated)
Octagon	Half past/ O'clock
Nonagon	Money
Decagon	Pounds
Cuboid	Pennies/ Pence
Sphere	In/on/under/by/behind/ in front/ next to
Cube	
Flat/ solid	Forwards/Backwards
Corner/ edge /face / curved	Left/Right
Straight/ Round	

Key Skills

- ❖ I can verbally count accurately beyond 20
- ❖ I can recognise number patterns within 20
- ❖ I can verbally count in 2'a, 5's to 10 any=d beyond
- ❖ I can find one more and one less then
- ❖ I can share objects into equal groups
- ❖ I can recognise even and odd numbers within 10
- ❖ I can recall double facts to 10
- ❖ I can order objects by their capacity
- ❖ I can recall some number bonds to 10 (addition and subtraction)
- ❖ I can subitise quantities to 5
- ❖ I can recognise the characteristics of 3D shapes (that they have shapes within shapes ect)

Key Questions

- Why is it different? How do you know?
- What do you think the rule is?
- How do we find the next number?
- Can you put them in order? Smallest to largest, shortest to tallest ect
- Which container holds the most/ least? Can you arrange the containers in order from smallest to largest?
- Can you find the matching shape? How many edges ect does it have?
- How many will you need?
- How many did I add/subtract? What is the total now?

Coverage Overview Guide: Year 1/2

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Number — **Place value** (within 10) — VIEW					Number — **Addition and subtraction** (within 10) — VIEW					Geometry — **Shape** — VIEW	Consolidation
Autumn term	Number — **Place value** — VIEW					Number — **Addition and subtraction** — VIEW					Geometry — **Shape** — VIEW	

Coverage Overview Guide: Year 1/2

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Spring term	Number **Place value** (within 20)			Number **Addition and subtraction** (within 20)			Number **Place value** (within 50)		Measurement **Length and height**		Measurement **Mass and volume**	
	VIEW			VIEW			VIEW		VIEW		VIEW	
Spring term	Measurement **Money**	Number **Multiplication and division**						Measurement **Length and height**		Measurement **Mass, capacity and temperature**		
	VIEW					VIEW		VIEW		VIEW		

Coverage Overview Guide: Year 1/2

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12

Summer term

Number
Multiplication and division
VIEW

Number
Fractions
VIEW

Geometry
Position and direction
VIEW

Number
Place value (within 100)
VIEW

Measurement
Money
VIEW

Measurement
Time
VIEW

Consolidation

Summer term

Statistics
VIEW

Number
Fractions
VIEW

Geometry
Position and direction
VIEW

Problem solving

Measurement
Time
VIEW

Ready to Progress Criteria - Small Steps to Success Year 1

	1NPV-1	1NPV-2
RTP Criteria	Count within 100, forwards and backwards, starting with any number.	Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =
White Rose Maths Small Steps	**Autumn 1 Place Value (within 10)** • Count objects to 10 • Count forwards to 10 • Count backwards from 10 • Count one more for numbers within 10 • Count one less for numbers within 10 • Count one more one less **Autumn 4 Place Value (within 20)** • Count forwards and backwards and write numbers to 20 • Count one more one less **Spring 2 Place Value (within 50)** • Counting forwards and backwards within 50 • One more one less **Summer 4 Place Value (within 20)** • Counting to 100 • Counting forwards and backwards within 100 • One more, one less	**Autumn 1 Place Value (within 10)** • Compare up to 10 objects • Introduce <, > and = for numbers within 10 • Compare numbers within 10 • Order up to 10 objects • Order numbers up to 10 • Ordinal numbers • The number line from 0 to 10 **Autumn 4 Place Value (within 20)** • Compare groups of objects • Compare numbers • Order groups of objects • Order numbers **Spring 1 Addition and Subtraction (within 20)** • Compare number sentence **Spring 3 Measurement : Length and Height** • Measure length (2)

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
- Number and place value **NPV**
- Number facts **NF**
- Addition and subtraction **AS**
- Multiplication and division **MD**
- Fractions **F**
- Geometry **G**

Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 1

	1NF-1	1NF-2
RTP Criteria	Develop fluency in addition and subtraction facts within 10	Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.
White Rose Maths Small Steps	Autumn 2 Addition and Subtraction (within 10) • Fact families - addition facts • Find number bonds for numbers within 10 • Systematic methods for number bonds within 10 • Number bonds to 10 • Compare number bonds • Addition - adding together • Addition - adding more • Finding a part • Subtraction - taking away - crossing out • Subtraction - taking away - using the symbol • Subtraction - find a part • Fact families - the 8 facts • Subtraction - counting back • Subtraction - finding the difference	Spring 2 Place Value (within 50) • Count in 2s • Count in 5s Summer 1 Multiplication and Division • Count in 10s Summer 5 Money • Counting in Coins

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

	1AS-1	1AS-2
RTP Criteria	Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	Read, write and interpret equations containing addition (+), subtraction (−) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.
White Rose Maths Small Steps	**Autumn 2 Addition and Subtraction (within 10)** • Introducing parts and wholes (single object) • Part-whole model (with images) • Part-whole model • Find number bonds for numbers within 10 • Systematic methods for number bonds within 10 • Number bonds to 10 • Compare number bonds • Finding a part	**Autumn 2 Addition and Subtraction (within 10)** • Addition symbol • Fact families - addition facts • Addition - adding together • Addition - adding more • Subtraction - taking away - crossing out • Subtraction - taking away - using the symbol • Subtraction - find a part • Fact families - the 8 facts • Subtraction - counting back • Subtraction - finding the difference **Spring 1 Addition and Subtraction (within 20)** Add by counting on within 20 • Add by making 10 • Subtraction - not crossing 10 • Subtraction - not crossing 10 (counting • Subtraction - crossing 10 (1) • Subtraction - crossing 10 (2) • Related facts

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

	1G-1	1G-2
RTP Criteria	Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.	Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.
White Rose Maths Small Steps	**Autumn 3 Geometry : Shape** • Recognise and name 3-D shapes • Sort 3-D shapes • Recognise and name 2-D shapes • Sort 2-D shapes	**Autumn 3 Geometry : Shape** • Recognise and name 3-D shapes • Sort 3-D shapes • Recognise and name 2-D shapes • Sort 2-D shapes

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 2

	2NPV-1	2NPV-2
RTP Criteria	Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.	Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.
White Rose Maths Small Steps	**Autumn 1 Place Value** • Count objects to 100 • Read and write numbers to 100 in numerals and words • Represent numbers to 100 • Tens and ones using a part-whole • Tens and ones using addition • Use a place value chart	**Autumn 1 Place Value** • Compare objects • Compare numbers • Order objects and numbers **Autumn 3 Money** • Compare money

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 2

2NF-1

RTP Criteria

Secure fluency in addition and subtraction facts within 10, through continued practice.

White Rose Maths Small Steps

Autumn 2 Addition and Subtraction

- Fact families - addition and subtraction bonds to 20
- Check calculations
- Compare number sentences
- Know your bonds

Pupils will also be developing their fluency with theses facts throughout the remaining steps in the Addition and Subtraction block

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
- Number and place value **NPV**
- Number facts **NF**
- Addition and subtraction **AS**
- Multiplication and division **MD**
- Fractions **F**
- Geometry **G**

Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 2

	2AS-1	2AS-2	2AS-3	2AS-4
RTP Criteria	Add and subtract across 10	Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?".	Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.	Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.
White Rose Maths Small Steps	**Autumn 2 Addition and Subtraction** • Add by making 10 • Subtraction - crossing 10 • Find and make number bonds • Add three 1-digit numbers	**Autumn 3 Money** • Find the difference The structure of 'difference' is also highlighted within many of the other subtraction steps	**Autumn 2 Addition and Subtraction** • Related facts • Add and subtract 1s • 10 more 10 less • Add and subtract 10s • Add a 2-digit and 1-digit number - crossing ten • Subtract a 1-digit number from a 2-digit number - crossing ten	**Autumn 2 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 subtract tens • Bonds to 100 (tens and ones) **Autumn 3 Money** • Find the total • Find the difference • Find change • Two-step problems **Summer 1 Measurement : Length and Height** • Four operations with lengths • Problem solving with lengths

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

2MD-1	2MD-2
RTP Criteria Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.	Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).
White Rose Maths Small Steps **Spring 1 Multiplication and Division** • Multiplication sentences using the x symbol • Multiplication sentences from pictures • Use arrays • 2 times-table • 5 times-table • 10 times-table **Spring 2 Statistics** • Draw pictograms (2, 5 and 10) • Interpret pictograms (2, 5 and 10) • Block diagrams **Summer 4 Measurement : Mass, Capacity and Temperature** • Measure mass in grams • Measure mass in kilograms • Millilitres • Temperature	**Spring 1 Multiplication and Division** • Make equal groups – sharing • Make equal groups - grouping • Divide by 2 • Divide by 5 • Divide by 10

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
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Ready to Progress Criteria - Small Steps to Success Year 2

2G-1

RTP Criteria	Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.
White Rose Maths Small Steps	**Spring 3 Geometry : Properties of Shape** • Recognise 2-D and 3-D shapes • Count sides on 2-D shapes • Count vertices on 2-D shapes • Draw 2-D shapes • Sort 2-D shapes • Count faces on 3-D shapes • Count edges on 3-D shapes • Count vertices on 3-D shapes • Sort 3-D shapes • Make patterns with 3-D shapes

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Coverage Overview Guide: Year 3/4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12

Autumn term

Number
Place value (within 10)
VIEW

Number
Addition and subtraction (within 10)
VIEW

Geometry
Shape
VIEW

Consolidation

Autumn term

Number
Place value
VIEW

Number
Addition and subtraction
VIEW

Geometry
Shape
VIEW

Coverage Overview Guide: Year 3/4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12

Spring term

Number — **Place value** (within 20) — VIEW	Number — **Addition and subtraction** (within 20) — VIEW	Number — **Place value** (within 50) — VIEW	Measurement — **Length and height** — VIEW	Measurement — **Mass and volume** — VIEW

Spring term

Measurement — **Money** — VIEW	Number — **Multiplication and division** — VIEW	Measurement — **Length and height** — VIEW	Measurement — **Mass, capacity and temperature** — VIEW

Coverage Overview Guide: Year 3/4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12

Summer term

Number
Multiplication and division
VIEW

Number
Fractions
VIEW

Geometry
Position and direction
VIEW

Number
Place value (within 100)
VIEW

Measurement
Money
VIEW

Measurement
Time
VIEW

Consolidation

Summer term

Statistics
VIEW

Number
Fractions
VIEW

Geometry
Position and direction
VIEW

Problem solving

Measurement
Time
VIEW

Ready to Progress Criteria - Small Steps to Success Year 3

	3NPV-1	3NPV-2	3NPV-3	3NPV-4
RTP Criteria	Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10	Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.	Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10	Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.
White Rose Maths Small Steps	**Autumn 1 Place Value** • Hundreds **Spring 2 Money** • Convert pounds and pence	**Autumn 1 Place Value** • Numbers to 1,000 • 100s, 10s and 1s (1) • 100s, 10s and 1s (2)	**Autumn 1 Place Value** • Number line to 1,000 • Compare objects • Compare numbers • Ordering numbers **Spring 4 Measurement : Length and Perimeter** • Compare lengths	**Autumn 1 Place Value** • Count in 50s **Summer 4 Measurement : Mass and Capacity** • Measure mass (1) • Measure mass (2) • Measure capacity (1) • Measure capacity (2) • Compare capacity

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

	3NF-1	3NF-2	3NF-3
RTP Criteria	Secure fluency in addition and subtraction facts that bridge 10, through continued practice. .	Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).
White Rose Maths Small Steps	**Autumn 2 Addition and Subtraction** • Add 3-digit and 1-digit numbers - crossing 10 • Subtract a 1-digit number from a 3-digit number - crossing 10 • Add 3-digit and 2-digit numbers - crossing 100 • Subtract a 2-digit number from a 3-digit number - crossing 100	**Autumn 3 Multiplication and Division** • 2 times-table • 5 times-table • Divide by 2 • Divide by 5 • Divide by 10 • Multiply by 4 • Divide by 4 • The 4 times-table • Multiply by 8 • Divide by 8 • The 8 times-table	**Spring 1 Multiplication and Division** • Related calculations • Scaling **Spring 4 Measurement : Length and Perimeter** • Equivalent lengths (m and cm) • Equivalent lengths (mm and cm)

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
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Ready to Progress Criteria - Small Steps to Success Year 3

	3AS-1	3AS-2	3AS-3
RTP Criteria	Calculate complements to 100	Add and subtract up to three-digit numbers using columnar methods.	Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.
White Rose Maths Small Steps	This is not explicitly covered in Year 3; if pupils need extra support then look back to **Year 2 Autumn 2 Addition and Subtraction** Bonds to 100 (tens and ones)	**Autumn 2 Addition and Subtraction** • Add and subtract 100s • Spot the pattern - making it explicit • Mixed addition and subtraction problems • Add and subtract 2-digit & 3-digit numbers- not crossing 10 or 100 • Add 2-digit and 3-digit numbers - crossing 10 or 100 • Subtract a 2-digit number from a 3-digit number - crossing 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	**Autumn 2 Addition and Subtraction** • Check answers **Spring 2 Money** • Add money • Subtract money • Give change

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
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3MD-1

RTP Criteria

Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.

White Rose Maths Small Steps

Autumn 3 Multiplication and Division

- Multiply by 3
- Divide by 3
- The 3 times-table
- Multiply by 4
- Divide by 4
- The 4 times-table
- Multiply by 8
- Divide by 8
- The 8 times-table

Spring 1 Multiplication and Division

- Comparing statements
- How many ways?

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:

- Number and place value **NPV**
- Number facts **NF**
- Addition and subtraction **AS**
- Multiplication and division **MD**
- Fractions **F**
- Geometry **G**

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Ready to Progress Criteria - Small Steps to Success Year 3

	3F-1	3F-2	3F-3	3F-4
RTP Criteria	Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.	Find unit fractions of quantities using known division facts (multiplication tables fluency).	Reason about the location of any fraction within 1 in the linear number system.	Add and subtract fractions with the same denominator, within 1
White Rose Maths Small Steps	**Summer 1 Fractions** • Making the whole • Tenths	**Summer 1 Fractions** • Fractions of a set of objects (1) • Fractions of a set of objects (2) • Fractions of a set of objects (3)	**Summer 1 Fractions** • Count in tenths • Fractions on a number line • Compare fractions • Order fractions	**Summer 1 Fractions** • Add fractions • Subtract fractions

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
- Number and place value **NPV**
- Number facts **NF**
- Addition and subtraction **AS**
- Multiplication and division **MD**
- Fractions **F**
- Geometry **G**

Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 3

	3F-1	3F-2	3F-3	3F-4
RTP Criteria	Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.	Find unit fractions of quantities using known division facts (multiplication tables fluency).	Reason about the location of any fraction within 1 in the linear number system.	Add and subtract fractions with the same denominator, within 1
White Rose Maths Small Steps	**Summer 1 Fractions** • Making the whole • Tenths	**Summer 1 Fractions** • Fractions of a set of objects (1) • Fractions of a set of objects (2) • Fractions of a set of objects (3)	**Summer 1 Fractions** • Count in tenths • Fractions on a number line • Compare fractions • Order fractions	**Summer 1 Fractions** • Add fractions • Subtract fractions

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
- Number and place value **NPV**
- Number facts **NF**
- Addition and subtraction **AS**
- Multiplication and division **MD**
- Fractions **F**
- Geometry **G**

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Ready to Progress Criteria - Small Steps to Success Year 3

	3G-1	3G-2
RTP Criteria	Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.	Draw polygons by joining marked points, and identify parallel and perpendicular sides.
White Rose Maths Small Steps	**Summer 3 Geometry : Properties of Shape** • Turns and angles • Right angles in shapes • Recognise and describe 2-D shapes	**Summer 3 Geometry : Properties of Shape** • Parallel and perpendicular • Recognise and describe 2-D shapes

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 4

	4NPV-1	4NPV-2	4NPV-3	4NPV-4
RTP Criteria	Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.	Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.	Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each	Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.
White Rose Maths Small Steps	Autumn 4 Multiplication and Division • Multiply by 10 • Multiply by 100 • Divide by 10 • Divide by 100	Autumn 1 Place Value • 1000s, 100s, 10s and 1s • Partitioning	Autumn 1 Place Value • Round to the nearest 100 • The number line to 10,000 • 1,000 more or less • Compare 4-digit numbers • Order numbers • Round to the nearest 1,000	This should be addressed when looking at charts in **Summer 4 Statistics** or **Spring 1 Multiplication and Division**

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 4

	4NF-1	4NF-2	4NF-3
RTP Criteria	Recall multiplication and division facts up to 12 × 12 and recognise products in multiplication tables as multiples of the corresponding number.	Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context.	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)
White Rose Maths Small Steps	**Autumn 3 Multiplication and Division** • Multiply by 10 • Divide by 10 • Multiply and divide by 6 • 6 times-table and division facts • The 3 times-table • Multiply and divide by 9 • 9 times-table and division facts • Multiply and divide by 7 • 7 times-table and division facts **Spring 1 Multiplication and Division** • 11 and 12 times-table • Multiply 3 numbers • Factor pairs	**Autumn 3 Multiplication and Division** • Divide 2-digits by 1 digit (1) • Divide 2-digits by 1 digit (2)	These strategies are built in within **Autumn 2 Addition and Subtraction, Autumn 4 Multiplication and Division** and **Spring 1 Multiplication and Division** rather than dealt with as separate steps

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 4

	4MD-1	4MD-2	4MD-3
RTP Criteria	Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.	Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.	Understand and apply the distributive property of multiplication.
White Rose Maths Small Steps	**Autumn 4 Multiplication and Division** • Multiply by 10 • Multiply by 100 • Divide by 10 • Divide by 100	**Autumn 3 Multiplication and Division** • Multiply by 10 • Divide by 10 • Multiply and divide by 6 • 6 times-table and division facts • The 3 times-table • Multiply and divide by 9 • 9 times-table and division facts • Multiply and divide by 7 • 7 times-table and division facts **Spring 1 Multiplication and Division** • 11 and 12 times-table • Multiply 3 numbers • Factor pairs	**Spring 1 Multiplication and Division** • Efficient multiplication • Written methods

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 4

	4F-1	4F-2	4F-3
RTP Criteria	Reason about the location of mixed numbers in the linear number system.	Convert mixed numbers to improper fractions and vice versa.	Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.
White Rose Maths Small Steps	**Spring 3 Fractions** • Count in fractions • Fractions greater than 1	**Spring 3 Fractions** • Count in fractions • Fractions greater than 1	**Spring 3 Fractions** • Add 2 or more fractions • Subtract 2 fractions • Subtract from whole amounts

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
- Number and place value **NPV**
- Number facts **NF**
- Addition and subtraction **AS**
- Multiplication and division **MD**
- Fractions **F**
- Geometry **G**

Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 4

	4G-1	4G-2	4G-3
RTP Criteria	Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.	Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.	Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.
White Rose Maths Small Steps	**Summer 6 Geometry : Position & Direction** • Describe position • Draw on a grid • Move on a grid • Describe movement on a grid	**Autumn 3 Measurement : Length and Perimeter** • Measure perimeter • Perimeter on a grid • Perimeter of a rectangle • Perimeter of rectilinear shapes **Summer 5 Geometry : Properties of Shape** • Triangles • Quadrilaterals	**Summer 5 Geometry : Properties of Shape** • Lines of symmetry • Complete a symmetric figure

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
- Number and place value **NPV**
- Number facts **NF**
- Addition and subtraction **AS**
- Multiplication and division **MD**
- Fractions **F**
- Geometry **G**

Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Coverage Overview Guide: Year 5/6

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12

Autumn term

Number
Place value
VIEW

Number
Addition and subtraction
VIEW

Number
Multiplication and division
VIEW

Number
Fractions A
VIEW

Autumn term

Number
Place value
VIEW

Number
Four operations
VIEW

Number
Fractions A
VIEW

Number
Fractions B
VIEW

Measurement
Converting units
VIEW

Coverage Overview Guide: Year 5/6

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Spring term	Number — **Multiplication and division** — VIEW			Number — **Fractions B** — VIEW		Number — **Decimals and percentages** — VIEW			Measurement — **Perimeter and area** — VIEW		**Statistics** — VIEW	
Spring term	Number — **Ratio** — VIEW		Number — **Algebra** — VIEW		Number — **Decimals** — VIEW		Number — **Fractions, decimals and percentages** — VIEW		Measurement — **Area, perimeter and volume** — VIEW		**Statistics** — VIEW	

Coverage Overview Guide: Year 5/6

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Summer term	Geometry **Shape** VIEW			Geometry **Position and direction** VIEW		Number **Decimals** VIEW			Number **Negative numbers** VIEW	Measurement **Converting units** VIEW		Measurement **Volume** VIEW
Summer term	Geometry **Shape** VIEW			Geometry **Position and direction** VIEW	Themed projects, consolidation and problem solving							

Ready to Progress Criteria - Small Steps to Success Year 5

	5NPV-1	5NPV-2	5NPV-3	5NPV-4	5NPV-5
RTP Criteria	Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01	Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.	Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.	Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.	Convert between units of measure, including using common decimals and fractions.
White Rose Maths Small Steps	Spring 3 Decimals and Percentages • Understand thousandths • Thousandths as decimals	Spring 3 Decimals and Percentages • Decimals up to 2 d.p.	Spring 3 Decimals and Percentages • Rounding decimals • Order and compare decimals	This should be addressed when looking at charts in **Autumn 3 Statistics**	Spring 3 Decimals and Percentages • Decimals as fractions (1) • Decimals as fractions (2) **Summer 4 Measurement : Converting Units** • Kilograms and kilometres • Millimetres and millilitres • Metric units • Imperial units • Converting units of time • Timetables

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

	5NF-1	5NF-2
RTP Criteria	Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).
White Rose Maths Small Steps	**Autumn 4 Multiplication and Division** • Multiples • Factors • Common factors • Prime numbers • Square numbers **Spring 1 Multiplication and Division** • Multiply 2-digits by 1-digit • Multiply 3-digits by 1-digit • Multiply 4-digits by 1-digit • Multiply 2-digits (area model) • Multiply 2-digits by 2-digits • Multiply 3-digits by 2-digits • Multiply 4-digits by 2-digits • Divide 3-digits by 1-digit • Divide 3-digits by 1-digit • Divide 3-digits by 1-digit	These strategies are built in within **Spring 3 Decimals and Percentages** and **Summer 1 Decimals** rather than dealt with as separate steps

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 5

	5MD-1	5MD-2	5MD-3	5MD-4
RTP Criteria	Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.	Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.	Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.	Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.
White Rose Maths Small Steps	**Autumn 4 Multiplication and Division** • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 • Multiples of 10, 100 and 1,000 **Summer 1 Decimals** • Multiplying decimals by 10, 100 and 1,000 • Dividing decimals by 10, 100 and 1,000	**Autumn 4 Multiplication and Division** • Multiples • Factors • Common factors • Prime numbers • Square numbers	**Spring 1 Multiplication and Division** • Multiply 4-digits by 1-digit	**Spring 1 Multiplication and Division** • Divide 4-digits by 1-digit • Divide with remainders

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 5

	5F-1	5F-2	5F-3
RTP Criteria	Find non-unit fractions of quantities.	Find equivalent fractions and understand that they have the same value and the same position in the linear number system.	Recall decimal fraction equivalents for $\frac{1}{4}, \frac{1}{2}, \frac{1}{5}$ and $\frac{1}{10}$ and for multiples of these proper fractions.
White Rose Maths Small Steps	**Spring 2 Fractions** • Fraction of an amount • Using fractions as operators	**Spring 2 Fractions** • Equivalent fractions • Compare fractions less than 1 • Order fractions less than 1	**Spring 3 Decimals and Percentages** • Decimals as fractions (1) • Decimals as fractions (2) • Equivalent FDP

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**.

Ready to Progress Criteria - Small Steps to Success Year 5

	5G-1	5G-2
RTP Criteria	Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.	Compare areas and calculate the area of rectangles (including squares) using standard units.
White Rose Maths Small Steps	**Summer 2 Geometry : Properties of Shape** • Measuring angles in degrees • Measuring with a protractor (1) • Measuring with a protractor (2) • Drawing lines and angles accurately	**Autumn 5 Measurement : Perimeter and Ares** • Area of rectangles • Area of compound shapes • Area of irregular shapes

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 6

	6NPV-1	6NPV-2	6NPV-3	6NPV-4
RTP Criteria	Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).	Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.	Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.	Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.
White Rose Maths Small Steps	**Spring 1 Decimals** • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 **Spring 4 Measurement : Converting Units** • Convert metric measures	**Autumn 1 Place Value** • Numbers to 10 million **Spring 1 Decimals** • Three decimal places	**Autumn 1 Place Value** • Compare and order any number • Round any number • Negative numbers	Reading scales is embedded in context rather than taught as separate steps, for example in **Year 6 Summer 1 Statistics** and throughout **Measurement** blocks in all year groups,

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Ready to Progress Criteria - Small Steps to Success Year 6

	6AS/MD-1	6AS/MD-2	6AS/MD-3	6AS/MD-4
RTP Criteria	Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).	Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.	Solve problems involving ratio relationships.	Solve problems with 2 unknowns.
White Rose Maths Small Steps	This is addressed within **Autumn 2 Addition, Subtraction, Multiplication and Division** where pupils observe relationships and choose appropriate strategies.	**Autumn 2 Addition, Subtraction, Multiplication and Division** • Reason from known facts	**Spring 6 Ratio** • Using ratio language • Ratio and fractions • Introducing the ratio symbol • Calculating ratio • Using scale factors • Calculating scale factors • Ratio and proportion problems	**Spring 3 Algebra** • Find pairs of values (1) • Find pairs of values (2)

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
- Number and place value **NPV**
- Number facts **NF**
- Addition and subtraction **AS**
- Multiplication and division **MD**
- Fractions **F**
- Geometry **G**

Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**.

Ready to Progress Criteria - Small Steps to Success Year 6

	6F-1	6F-2	6F-3
RTP Criteria	Recognise when fractions can be simplified, and use common factors to simplify fractions.	Express fractions in a common denomination and use this to compare fractions that are similar in value.	Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.
White Rose Maths Small Steps	**Autumn 3 Fractions** • Equivalent fractions • Simplify fractions • Four rules with fractions	**Autumn 3 Fractions** • Fractions on a number line • Compare and order (denominator) • Add fractions • Subtract fractions • Mixed addition and subtraction • Four rules with fractions	**Autumn 3 Fractions** • Fractions on a number line • Compare and order (denominator) • Compare and order (numerator)

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
• Number and place value **NPV**
• Number facts **NF**
• Addition and subtraction **AS**
• Multiplication and division **MD**
• Fractions **F**
• Geometry **G**
Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

6G-1

RTP Criteria

Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.

White Rose Maths Small Steps

Summer 2 Geometry : Properties of Shape

- Draw shapes accurately
- Draw nets of 3-D shapes

The White Rose schemes follow the National Curriculum and address area within **Year 5 Autumn 5 Measurement : Perimeter and Area**

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:
- Number and place value **NPV**
- Number facts **NF**
- Addition and subtraction **AS**
- Multiplication and division **MD**
- Fractions **F**
- Geometry **G**

Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place Value: Counting	• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • Count numbers to 100 in numerals; count in multiples of twos, fives and tens **Autumn 1** **Autumn 4** **Spring 2** **Summer 4**	• count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward **Autumn 1**	• count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number **Autumn 1** **Autumn 3**	• count in multiples of 6, 7, 9, 25 and 1000 • count backwards through zero to include negative numbers **Autumn 1**	• count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • count forwards and backwards with positive and negative whole numbers, including through zero **Autumn 1**	
Place Value: Represent	• identify and represent numbers using objects and pictorial representations • read and write numbers to 100 in numerals • read and write numbers from 1 to 20 in numerals and words. **Autumn 1** **Autumn 4** **Spring 2** **Summer 4**	• read and write numbers to at least 100 in numerals and in words • identify, represent and estimate numbers using different representations, including the number line **Autumn 1**	• identify, represent and estimate numbers using different representations • read and write numbers up to 1000 in numerals and in words **Autumn 1**	• identify, represent and estimate numbers using different representations • 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 **Autumn 1**	• read, write, (order and compare) numbers to at least 1 000 000 and determine the value of each digit • read Roman numerals to 1000 (M) and recognise years written in Roman numerals. **Autumn 1**	• read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit **Autumn 1**

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place Value : Use PV and Compare	• given a number, identify one more and one less **Autumn 1** **Autumn 4** **Spring 2** **Summer 4**	• recognise the place value of each digit in a two-digit number (tens, ones) • compare and order numbers from 0 up to 100; use <, > and = signs **Autumn 1**	• recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000 **Autumn 1**	• find 1000 more or less than a given number • recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • order and compare numbers beyond 1000 **Autumn 1**	• (read, write) order and compare numbers to at least 1 000 000 and determine the value of each digit **Autumn 1**	• (read, write), order and compare numbers up to 10 000 000 and determine the value of each digit **Autumn 1**
Place Value: Problems& Rounding		• use place value and number facts to solve problems. **Autumn 1**	• solve number problems and practical problems involving these ideas **Autumn 1**	• 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 **Autumn 1**	• interpret negative numbers in context • round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • solve number problems and practical problems that involve all of the above **Autumn 1**	• round any whole number to a required degree of accuracy • use negative numbers in context, and calculate intervals across zero • solve number and practical problems that involve all of the above **Autumn 1**

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Recall, Represent, Use	• read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs • represent and use number bonds and related subtraction facts within 20	• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • 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	• estimate the answer to a calculation and use inverse operations to check answers	• estimate and use inverse operations to check answers to a calculation	• use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	
	Autumn 2 Spring 1	Autumn 2 .	Autumn 2	Autumn 2	Autumn 2	

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Calculations	• add and subtract one-digit and two-digit numbers to 20, including zero	• add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ➢ a two-digit number and ones ➢ a two-digit number and tens ➢ two two-digit numbers ➢ adding three one-digit numbers	• 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	• add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	• add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • add and subtract numbers mentally with increasingly large numbers	• perform mental calculations, including with mixed operations and large numbers • use their knowledge of the order of operations to carry out calculations involving the four operations
	Autumn 2 Spring 1	Autumn 2	Autumn 2	Autumn 2	Autumn 2	Autumn 2

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Solve Problems	• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ – 9	• solve problems with addition and subtraction: ➢ using concrete objects and pictorial representations, including those involving numbers, quantities and measures ➢ applying their increasing knowledge of mental and written methods	• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	• solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
	Autumn 2 Spring 1	Autumn 2	Autumn 2	Autumn 2	Autumn 2	Autumn 2

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Recall, Represent, Use		• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	• recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	• 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	• identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • establish whether a number up to 100 is prime and recall prime numbers up to 19 • recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	• identify common factors, common multiples and prime numbers • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
		Autumn 4 **Spring 1**	**Autumn 3**	**Autumn 4** **Spring 1**	**Autumn 4**	**Autumn 4**

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Calculations		• calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	• 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	• multiply two-digit and three-digit numbers by a one-digit number using formal written layout	• multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • multiply and divide numbers mentally drawing upon known facts • divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	• multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • perform mental calculations, including with mixed operations and large numbers
		Autumn 4 Spring 1	Autumn 3 Spring 1	Spring 1	Autumn 4 Spring 1 Summer 1	Autumn 2

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Solve Problems	• 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	• solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	• 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	• 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	• solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	• solve problems involving addition, subtraction, multiplication and division
	Summer 1	Autumn 4 Spring 1	Spring 1	Spring 1	Autumn 4 Spring 1	Autumn 2
Multiplication & Division: Combined Operations					• solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	• use their knowledge of the order of operations to carry out calculations involving the four operations
					Spring 1	Autumn 2

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions: Recognise and Write	• 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 Summer 2	• 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 Spring 4	• 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 non-unit fractions with small denominators • recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators Spring 5	• count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Spring 3	• identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$] Spring 2	
Fractions: Compare		• Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ Spring 4	• recognise and show, using diagrams, equivalent fractions with small denominators • compare and order unit fractions, and fractions with the same denominators Summer 1	• recognise and show, using diagrams, families of common equivalent fractions Spring 3	• compare and order fractions whose denominators are all multiples of the same number Spring 2	• use common factors to simplify fractions; use common multiples to express fractions in the same denomination • compare and order fractions, including fractions > 1 Autumn 3

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions: Calculations		• write simple fractions for example, $\frac{1}{2}$ of 6 = 3	• add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]	• add and subtract fractions with the same denominator	• add and subtract fractions with the same denominator and denominators that are multiples of the same number • multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	• add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] • divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]
		Spring 4	Summer 1	Spring 3	Spring 3	Autumn 3
Fractions: Solve Problems			• solve problems that involve all of the above	• 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		
			Spring 5 Summer 1	Spring 3		

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Decimals: Recognise and Write				• recognise and write decimal equivalents of any number of tenths or hundredths • recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$ Spring 4 Summer 1	• read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$] • recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Spring 3	• identify the value of each digit in numbers given to three decimal places Spring 1
Decimals: Compare				• 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 Summer 1	• round decimals with two decimal places to the nearest whole number and to one decimal place • read, write, order and compare numbers with up to three decimal places Spring 3	

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Decimals: Calculations & Problems				• 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	• solve problems involving number up to three decimal places	• multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places • multiply one-digit numbers with up to two decimal places by whole numbers • use written division methods in cases where the answer has up to two decimal places • solve problems which require answers to be rounded to specified degrees of accuracy
				Spring 4	Summer 1	Spring 1

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions, Decimals and Percentages				• solve simple measure and money problems involving fractions and decimals to two decimal places	• recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal • solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25	• associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] • recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
				Spring 3 Spring 4 Summer 1	Spring 3	Spring 1 Spring 2

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Ratio and Proportion						• solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison • solve problems involving similar shapes where the scale factor is known or can be found • solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. Spring 6

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Algebra	• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ – 9	• recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	• solve problems, including missing number problems			• use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • find pairs of numbers that satisfy an equation with two unknowns • enumerate possibilities of combinations of two variables. Spring 3

Note – although algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the 'missing number' objectives from Y1/2/3

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Using Measures	• 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)	• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°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 =	• measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	• Convert between different units of measure [for example, kilometre to metre; hour to minute] • estimate, compare and calculate different measures	• convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) • understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	• solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places • convert between miles and kilometres
	Spring 3 Spring 4 Summer 6	Spring 5 Summer 4	Spring 4 Summer 4	Autumn 3 Spring 2 Summer 3	Summer 1 Summer 4 Summer 5	Spring 4

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Money	• recognise and know the value of different denominations of coins and notes	• 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	• add and subtract amounts of money to give change, using both £ and p in practical contexts	• estimate, compare and calculate different measures, including money in pounds and pence	• use all four operations to solve problems involving measure [for example, money]	
	Summer 5	Autumn 3	Spring 2	Summer 2	Summer 1	

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Time	• 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	• 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	• 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]	• 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	• solve problems involving converting between units of time	• use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa
	Summer 6	Summer 3	Summer 2	Summer 3	Summer 4	Year 5 Summer 4

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Perimeter, Area, Volume			• measure the perimeter of simple 2-D shapes	• measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • find the area of rectilinear shapes by counting squares	• measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes • estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]	• recognise that shapes with the same areas can have different perimeters and vice versa • recognise when it is possible to use formulae for area and volume of shapes • calculate the area of parallelograms and triangles • calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]
			Spring 4	Autumn 3 Spring 2	Autumn 5 Summer 5	Spring 5

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: 2-D Shapes	• recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles] Autumn 3	• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • 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 shapes and everyday objects Spring 3	• draw 2-D shapes Summer 3	• compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • identify lines of symmetry in 2-D shapes presented in different orientations Summer 5	• distinguish between regular and irregular polygons based on reasoning about equal sides and angles. • use the properties of rectangles to deduce related facts and find missing lengths and angles Summer 2	• draw 2-D shapes using given dimensions and angles • compare and classify geometric shapes based on their properties and sizes • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius Summer 1
Geometry: 3-D Shapes	• recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] Autumn 3	• recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. • compare and sort common 3-D shapes and everyday objects Spring 3	• make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them Summer 3		• identify 3-D shapes, including cubes and other cuboids, from 2-D representations Summer 2	• recognise, describe and build simple 3-D shapes, including making nets Summer 1

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: Angles & Lines			• 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	• 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	• know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles • draw given angles, and measure them in degrees • identify: ➢ angles at a point and one whole turn (total 360°) ➢ angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) ➢ other multiples of 90°	• find unknown angles in any triangles, quadrilaterals, and regular polygons • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
			Summer 3	**Summer 5**	**Summer 2**	**Summer 1**

Skills Progression

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: Position & Direction	• describe position, direction and movement, including whole, half, quarter and three-quarter turns	• 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 anti-clockwise)		• 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	• identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	• describe positions on the full coordinate grid (all four quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes
	Summer 3	Spring 3 Summer 1		Summer 6	Summer 3	Autumn 4

Skills Progression

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Statistics: Present and Interpret			• interpret and construct simple pictograms, tally charts, block diagrams and simple tables	• interpret and present data using bar charts, pictograms and tables	• interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	• complete, read and interpret information in tables, including timetables	• interpret and construct pie charts and line graphs and use these to solve problems
			Spring 2	Spring 3	Summer 4	Autumn 3	Summer 3
Statistics: Solve Problems			• 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	• 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	• solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	• solve comparison, sum and difference problems using information presented in a line graph	• calculate and interpret the mean as an average
			Spring 2	Spring 3	Summer 4	Autumn 3	Summer 3

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

EYFS Teaching Vocabulary

Number and Place Value	Calculation +/-/x/÷ Addition, Subtraction, multiplication, division	Fractions	Measurement Length, Height, Mass, Capacity, Time, Money	Geometry Position & Direction Properties of shape	Statistics
ELG Skill: 1, 2, 3, 4,5,6,7,8,11,12	ELG Skill: 1, 2, 3, 4,5,6,7,8,11,12	ELG:2,3,5,6,11,12	ELG Skills:1,2,3,4,5,6,12	ELG Skills:9,10, 11	ELG Skills: 3, 4,5,12
Ones /Tens Zero One Two Three Four Five Six Seven Eight Nine Ten Order Smallest Largest Balance Sort Rule Repeated Pattern Match The same as 5 frame Equal More Less Most Least First/ next/ finally Before/ after Comparing	Count Add Subtract Repeated pattern Share Equal Total Smallest Largest Balance Sort Rule Match The same as 5 frame More Less First/ next/ finally Before/ after Counting on / back	Full Half Full Empty	Days of the week Months of the year First/ next/ finally Before/ after Capacity Full Half Full Empty Half past o'clock Money Pounds Pennies pence Largest Lighter Heavier Balance Sort Rule Match The same as Tallest (Tall) Shortest (Short) Long / short	Square Circle Triangle Rectangle Heart Pentagon Diamond Hexagon Oval Star Heptagon Octagon Nonagon Decagon Cuboid Sphere Cube 2d/3d Flat/ solid Corner/ edge /face curved straight round Vertical horizontal In /on /under /by /behind / in front /next to Forwards /backwards /left / right	Pictogram

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Number and Place Value

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Hundred	hundreds	hundreds	thousands	millions	ten million
Tens	tens	tens	hundreds	thousands	millions
Ones	ones	ones	tens	hundreds	thousands
Zero	zero	zero	ones	tens	hundreds
Place Value	place value	place value	zero	ones	tens
One more than/ One less than	greater than	greater than	place value	zero	ones
Ordinal Numbers	less than	less than	greater than	place value	zero
Most/ Greatest	order	order	less than	greater than	place value
Fewest/ Least/ Smallest	partition	more	order	less than	greater than
Less than/ more than/ Greater than	digit	less	round	order	less than
equal		partition	rounded to	round	order
Counting		digit	negative number	rounded	round
Comparing numbers			partition	negative number	rounded
Partition			digit	partition	negative number
Digit			Roman numeral	digit	partition
				interval	digit
				sequence	interval
				linear sequence	sequence
					linear sequence

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Calculation: Four Strands

Year 1	Year 1		Year 2	Year 2		Year 3	Year 3
Addition & Subtraction	**Multiplication & Division**		**Addition & Subtraction**	**Multiplication & Division**		**Addition / Subtraction**	**Multiplication/ Division**
Counting on	Count in 2's		Add	groups		add	times tables
Counting back	Count in 5's		Total			total	multiply by
Number bonds	Count in 10's		Make	equal groups		plus	divide by
Partition	Make Equal Groups		Plus			sum	array
First/ Then/ Now	Add Equal Groups		Sum	lots of		more	fact families
	Make Arrays		More			altogether	regrouping
	Make Doubles		Altogether	arrays		difference	
	Group Equally		Difference			subtract	
	Share Equally		Leave	repeated addition		less	
			Subtract			minus	
			Difference between			take away	
			Less	multiplication		column addition	
			Minus			column subtraction	
			Take away	times tables		exchange	
			Mentally, Orally			estimate	
			Column Addition			inverse operation	
			Column Subtraction			solve problems	
			Estimate			number facts	
			Inverse operation			place value	
			Solve problems				
			Number facts				
			Place Value				

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Calculation: Four Strands

Year 4	Year 4		Year 5	Year 5		Year 6
Addition / Subtraction	**Multiplication/ Division**		**Addition / Subtraction**	**Multiplication/ Division**		**Calculation**
Add	multiply		Add	multiply		Add
Total			Total			Total
Plus	groups of		Make	groups of		Make
Sum			Plus			Plus
More	lots of		Sum	lots of		Sum
Altogether			More			More
Difference	times		Altogether	times		Altogether
Subtract			Difference			Difference
Less	divide		Subtract	divide		Leave
Minus			Less			Subtract
Take away	share		Minus	share		Difference between
Mentally, Orally			Take away			Less
Column Addition	remainder		Column addition	remainder		Minus
Column Subtraction			Column subtraction			Take away
Exchange	factor		Estimate	factor		Mentally, Orally
Estimate			Inverse operation			Column Addition
Inverse operation	multiple		Number facts	multiple		Column Subtraction
Solve problems			Place value			Estimate
Number facts	product		Complex	product		Inverse operation
						Solve problems
						Number facts
						Place Value
						Complex

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Fractions

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Half of a Shape	fraction	numerator	numerator	numerator	numerator
Half of a Group	part	denominator	denominator	denominator	denominator
Quarter of a Shape	whole	unit fraction	unit fraction	unit fraction	proper fraction
Quarter of a Group	equal	non-unit fraction	non-unit fraction	non-unit fraction	improper fraction
Half Full	share	equivalent	equivalent	whole	factor
Quarter Full	half	halves	quantities	equivalent	highest common multiple
	quarter	thirds	whole	mixed number	lowest common multiple
	third	quarters	halves	improper fraction	equivalents
	equivalent	fifths	thirds	simplest form	common numerator
	numerator	sixths	quarters	multiple	common denominator
	denominator	eighths	fifths	common denominator	decimal equivalent
		tenths	sixths	common numerator	simplify
		decimal tenths	sevenths		simplest form
			eighths		mixed number
			ninths		whole number
			tenths		mixed number
			elevenths		
			twelfths		
			quantities		

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Decimals

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			tenths	tenths	decimal place
			hundredths	hundredths	decimal fraction
			decimal tenths	decimal tenths	recurring decimal
			decimal hundredths	decimal hundredths	equivalent fraction
			decimal equivalents	decimal equivalents	tenth
			part-whole model	part-whole model	sharing
			rounding	rounding	partitioning
			decimal point	decimal point	exchanging
			place value	place value	rounding to 3 d.p.
					hundredth
					thousandth
					equal to
					remainder
					grouping

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Percentages

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				Per cent (%) Out of 100	per cent (%) = 'out of 100'
				Percentage	percentage
				The whole	discount
				Equivalent Fraction	equivalent fraction
				Equivalent Fraction	equivalent decimal
					convert
					compare
					order
					the whole

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Algebra

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					term to term rule
					variable
					unknown
					expression
					equation
					formula
					one-step equation
					two-step equation
					substitution
					pairs of unknowns
					enumerate

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Ratio

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					ratio
					proportion
					"for every... there are..."
					part
					whole
					scale factor
					enlargement
					similar shapes
					length
					width
					perimeter

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Measurement: Mass Weight/ Volume / Temperature/ Conversion

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Mass	mass	mass		gram	mass
Measure	gram	gram		kilogram	gram
Measurement	kilogram	kilogram		capacity	kilogram
Heavier	lighter	capacity		volume	capacity
Lighter	heavier	volume		millilitre	volume
Weighs	capacity	millilitre		centilitre	mililitre
Balanced	volume	litre		litre	litre
Capacity	millilitre	lighter		millimetre	millimetre
Volume	litre	heavier		centimetre	centimetre
Full	temperature			kilometre	kilometre
Half Full	Celsius				foot
Empty	degrees				inch
					ounce
					pound
					stone
					pint
					gallon

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Measurement: Length, Height, Perimeter, Area & Volume

Year 1	Year 2	Year 3	Year 4	Year 5 Perimeter/ Area	Year 5 Volume	Year 6
Height	length	metre (m)	area	metre	cubed	perimeter
Taller than/ Shorter than	long	centimetre (cm)	perimeter	kilometre	area	area
Tallest / Shortest	short	millimetre (mm)	centimetres	perimeter	cross-section	volume
Length	height	height	metres	length	prism	cubic units (e.g. cm³)
Shorter than / Longer than	tall	length	squares	width	cube	cuboid
Shortest/ Longest	measure	width	distance	rectangle	cuboid	width
Same length	ruler	perimeter	millimetres	rectilinear	face	length
Same height	tape measure	further/furthest	kilometres	dimensions	length	rectangle
Number Scale	metre stick	higher/highest	length		height	rectilinear
Long	centimetre (cm)	longer/longest	width		width	parallelogram
	metre (m)	shorter/shortest	rectilinear		depth	perpendicular height
	compare	taller/tallest	right angle			
	order					

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Measurement: Time

Year 1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Before/ After	Months of the Year	time	12-hour time	12-hour time	Use all four strands of calculation to solve money problems and reasoning tasks.	
First/ Next/ Finally	January	clock	24-hour time	24-hour time	Children to draw on prior learning and maths vocabulary	
Days of the Week	February	hours	Roman numerals	Roman numerals		
Monday	March	minutes	analogue	analogue		
Tuesday	April	hand	digital	digital		
Wednesday	May	o'clock	hours	hours		
Thursday	June	half past	minutes	minutes		
Friday	July	quarter past	seconds	seconds		
Saturday	August	quarter to	o'clock	o'clock		
Sunday	September	five minutes	half past	half past		
Time	October	duration	quarter past	quarter past		
Long Hand is the Minute Hand	November	shorter	quarter to	quarter to		
Short Hand is the Hour Hand	December	longer	midday	midday		
Minute /Hour			midnight	midnight		
O'clock			noon	noon		
Half Past				a.m.		
Earlier				p.m.		
Later						
Faster Than						
Slower Than						

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Measurement: Money

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Money	pence	amount	amount	Use all four strands of calculation to solve money problems and reasoning tasks.	
	Coins	pound	change	change	Children to draw on prior learning and maths vocabulary	
	Notes	coin	coin	combinations		
	Penny	note	combinations	estimate		
	Pence p	total	convert	decimal		
	Pound £	amount	note	pence		
		change	pence	penny		
		difference	penny	pounds		
		price	pounds	round		
		cost	value	value		
		pay		convert		
		owe				

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Geometry: Position & Direction

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Movement	forwards		coordinate	coordinate	translate
Forwards	backwards		quadrant	quadrant	translation
Backwards	left		x-axis	x-axis	reflect
Left	right		y-axis	y-axis	reflection
Right	north		translation	reflection	up
Quarter turn	south		vertex	mirror line	down
Half turn	east		vertices	translation	right
Three-quarter turn	west			horizontal	left
Full turn	quarter turn			vertical	coordinates
Position	half turn				quadrant
Front	three-quarter turn				x-axis
Behind	clockwise				y-axis
Below	anticlockwise				horizontal
Above	pattern				vertical
Top	sequence				
Middle					
Bottom					
Between					

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Geometry: Properties of Shape

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	two-dimensional (2D)	quarter turn	angle	angle	angle
	three-dimensional (3D)	half turn	right angle	right angle	right angle
	flat	three-quarter turn	acute	acute	acute
	solid	angle	obtuse	obtuse	obtuse
	corner	right angle	horizontal	reflex	reflex
	apex	acute	vertical	protractor	protractor
	vertex	obtuse	diagonal	horizontal	horizontal
	vertices	horizontal	parallel	vertical	vertical
	side	vertical	perpendicular	parallel	parallel
	edge	parallel	two-dimensional	perpendicular	perpendicular
	face	perpendicular	polygon	polygon	polygon
	curved	polygon	line of symmetry	regular	regular
	straight	two-dimensional	reflection	irregular	irregular
	round	three-dimensional	mirror line	two-dimensional	two-dimensional
	line of symmetry	flat face	isosceles	three-dimensional	three-dimensional
	vertical	curved surface	equilateral	flat face	flat face
	pattern	edge	scalene	curved surface	curved surface
		curved edge	quadrilateral	edge	edge
		vertex	rhombus	curved edge	curved edge
		vertices	parallelogram	vertex	vertex
		apex	trapezium	apex	vertices
					apex
					radius
					diameter
					circumference

Mathematical Vocabulary Progression

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Statistics

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	data	data	bar chart	axis	bar chart
	interpret	pictogram	pictogram	continuous data	pictogram
	key	symbol	frequency table	horizontal	frequency table
	tally chart	bar chart	tally chart	data	tally chart
	pictogram	horizontal axis	discrete data	interpret	pie chart
	block diagram	vertical axis	continuous data	label	discrete data
	table	axes	time graph	line graph	continuous data
	total	scale	sum	maximum value	line graph
	compare	intervals	difference	minimum value	sum
	symbol	table	comparison	pattern	difference
		interpret	interpret	predict	comparison
				relationship	interpret
				represent	mean average
				scale	
				survey	
				table	
				tally	
				timetable	
				vertical	
				x-axis	
				y-axis	

Mathematical Vocabulary Progression

Frequently used mathematical terminology is detailed below, but please refer to the National Curriculum Glossary for a detailed account of all KS1 & KS2 mathematical terminology.
https://www.ncetm.org.uk/media/hpihrj3s/national-curriculum-glossary.pdf

Using the correct mathematical terminology is crucial to ensure accurate teaching and learning.

Key Vocabulary: Number

Cardinal	The number that indicates how many there are in a set.
Classification	The identification of an object by specific attributes, such as colour, texture, shape or size.
Conservation of number	The recognition that the number stays the same if none have been added or taken away.
Estimate	To arrive at a rough or approximate answer by calculating with suitable approximations for terms or, in measurement, by using previous experience.
Equal	Symbol: =, read as 'is equal to' or 'equals'. and meaning 'having the same value as'.
Inverse operations	Operations that, when they are combined, leave the entity on which they operate unchanged. Examples: addition and subtraction are inverse operations e.g. 5 + 6 − 6 = 5. Multiplication and division are inverse operations e.g. 6 × 10 ÷ 10 = 6.
Number	Number can be: • a count of a collection of items e.g. three boxes. • A measure e.g. length or weight or a label e.g. the number 17 bus.
Numeral	The written symbol for a number. E.g. 3,2,1
Ordinal	A number denoting the position in a sequence e.g. 1st, 2nd, 3rd or page 1, page 2, page 3 ...
Partition	Separate a set into two or more subsets e.g. partition a set of socks into plain and stripy.
Quantity	The amount you have of something e.g. a cup of flour, three boxes, half an hour.
Subitise	Instantly recognising a small quantity without having to count how many there are.

Mathematical Vocabulary Progression

Key Vocabulary: Addition and Subtraction

Addition	The result of the addition is called the sum or total. The operation is denoted by the + sign. When we write 5 + 3 we mean 'add 3 to 5'; we can also read this as '5 plus 3'. In practice the order of addition does not matter: The answer to 5 + 3 is the same as 3 + 5 and in both cases the sum is 8. This holds for all pairs of numbers and therefore the operation of addition is said to be commutative. Addition is the inverse operation to subtraction, and vice versa.
Addend	A number to be added to another.
Aggregation	Combining two or more quantities or measures to find a total.
Augmentation	Increasing a quantity or measure by another quantity.
Commutative Law	Numbers can be added in any order.
Count	The act of assigning one number name to each of a set of objects (or sounds or movements) in order to determine how many objects there are. In order to count reliably children need to be able to: • Understand that the number words come in a fixed order • Say the numbers in the correct sequence; • Organise their counting (e.g. say one number for each object and keep track of which things they have counted); • Understand that the final word in the count gives the total • Understand that the last number of the count remains unchanged irrespective of the order (conservation of number)
Difference	The numerical difference between two numbers is found by comparing the quantity in each group.
Exchange	Change a number or expression for another of equal value.
Minuend	A quantity or number from which another is subtracted.
Partitioning	Splitting a number into its component parts.
Reduction	Subtraction as take away.
Re-group	Follows on from exchange, once exchange of a number or expression for another of equal value has taken place the exchanged number or expression is then re-grouped into the correct place value status. Examples: 'carrying figures' in addition, multiplication or division; and 'decomposition' in subtraction. $\begin{array}{r} {}^{6}7\,{}^{1}1\,9 \\ -\ 2\ 9\ 7 \\ \hline 4\ 2\ 2 \end{array}$
Subtraction	The inverse operation to addition. Finding the difference when comparing magnitude. Take away.
Subtraction by decomposition	A method of calculation used in subtraction and particularly linked with one of the main columnar methods for subtraction. In this method the number to be subtracted from (the minuend) is re-partitioned, if necessary, in order that each digit of the number to be subtracted (the subtrahend) is smaller than its corresponding digit in the minuend. e.g. in 739 – 297, only the digits in the hundreds and the ones columns are bigger in the minuend than the subtrahend.
Subitise	Instantly recognising the number of objects in a small group with out needing to count.
Subtrahend	A number to be subtracted from another.
Sum	The result of an addition .
Total	The aggregate or sum found by addition.

Mathematical Vocabulary Progression

Key Vocabulary: Multiplication and Division

Array	An order collection of counters, cubes or other item in rows and columns.
Commutative Law	Numbers can be multiplied in any order.
Division	An operation on numbers interpreted in a number of ways. Division can be sharing – the number to be divided is shared equally into the stated number of parts; or grouping – the number of groups of a given size is found. Division is the inverse operation to multiplication. 2. On a scale, one part. Example: Each division on a ruler might represent a millimetre.
Dividend	In division, the number that is divided.
Divisor	In division, the number by which another is divided.
Exchange	Change a number or expression for another of equal value.
Factor	A number that multiplies with another to make a product.
Multiple	For any integers a and b, a is a multiple of b if a third integer c exists so that a = bc Example: 14, 49 and 70 are all multiples of 7 because 14 = 7 x 2, 49 = 7 x 7 and 70 = 7 x 10.. -21 is also a multiple of 7 since -21 = 7 ×-3.
Multiplicand	In multiplication, a number to be multiplied by another.
Multiplication	Multiplication (often denoted by the symbol "×") is the mathematical operation of scaling one number by another. It is one of the four binary operations in arithmetic (the others being addition, subtraction and division). Because the result of scaling by whole numbers can be thought of as consisting of some number of copies of the original, whole-number products greater than 1 can be computed by repeated addition; for example, 3 multiplied by 4 (often said as "3 times 4") can be calculated by adding 4 copies of 3 together: 3 x 4 = 3 + 3 + 3 + 3 = 12 Here 3 and 4 are the "factors" and 12 is the "product". Multiplication is the inverse operation of division, and it follows that 7 ÷ 5 × 5 = 7 Multiplication is commutative, associative and distributive over addition or subtraction.
Partitioning	Splitting a number into its components parts.
Product	The result of multiplying one number by another.
Quotient	The result of a division.
Remainder	The amount left over after a division when the divisor is not a factor of the dividend.
Scaling	Enlarging or reducing a number by a given amount, called scale factor.

Talking Mathematically—Mathematical Questioning

Detailed below are adaptable thought provoking questions.

Concrete

- How do you make a ….. calculation with the dienes/ objects?
- Can you show me the sum?
- How are you using the objects?
- What represents the place value…?
- What have you found out?
- How did you exchange? What does that mean?
- At what point do you exchange and then re-group your dienes?

Pictorial

- Can you draw …..?
- What represents the place value…?
- What have you found out?
- How have you re-grouped? Does this mean you have exchanged?
- At what point do you use the coloured pencil? What does the coloured pencil markings mean?
- Can you explain with maths terminology what you have drawn?
- How you check your sum?

Abstract

- Can you check by looking at pictorial representation or concrete objects?
- How do you know where each digit goes?
- What is the place value of…?
- How can you check we have the correct sum?
- Can you use inverse operations to check?

Mathematical explanation—PEE

- How do you know you have the right sum?
- What point is a mistake likely to happen?
- How can we prevent mistakes?
- Can you explain using maths terminology what strategy you are using and can you show me?