Mathematics

At St Peter and St Paul we are following the White Rose Scheme of Learning, supplemented with resources from other sources including NRich, and Twinkl

EYFS	Through continuous provision Children in Reception will:	Continuous provision areas and activities that support learning and skill development that relate to this subject are:
	Communication and Language: *Talk and compare numbers. *Describe 2D/3D shapes *Use vocabulary relating to size, length, height of objects. *Problem-solve and be able to explain how they worked out an answer *Learn new vocabulary, such as 'addition,' 'distance' *Develop language related to time *Use positional language during practical activities *Language associated with comparing and measuring **Personal, Social and Emotional Development:** *Develop a 'can-do' attitude in mathematics/learn to become a resilient learner/persevering in challenges **Physical Development:** *Manipulate materials and resources to support their learning, e.g. using objects for counting *Use a pencil effectively to form numbers correctly **Literacy**: *Learn to read some numbers in words, e.g. one, two, three *Children will explore reading counting books in the reading area **Mathematics:** *Count, recognise and order numbers up to 10 and beyond *Develop a deep understanding of numbers up to 10 *Subitise *Link the number symbol with its cardinal number value *Develop spatial reasoning skills across all areas of mathematics including shape, space and measures *Develop positive attitudes and interests in mathematics *Look for patterns and relationships, spot connections and 'have a go' *Talk to adults and peers about what they notice and not be afraid to make mistakes **Understanding the World:** *Learn about the different seasons *Explore the outside environment to compare the heights of different trees *Understand the concept of money and be able to recognise different coins **Expressive Arts and Design**: *Art activities - painting hands and counting in 5s *Time - creating a watch/clock	Continuous provision areas and activities that support learning and skill development that relate to this subject are: **Maths area:** *Counting objects by using 1:1 correspondence *Counting activities, such as counting how many jumps/hops etc *Counting songs/nursery rhymes to support mathematical development *Problem-solving activities and jigsaw puzzles *A range of repeating pattern activities and tasks *Play games, such as snap or matching pairs where some have numerals, and some have dot arrangements *Select, rotate and manipulate shapes to develop spatial reasoning skills *Explore magnetic shapes to create models *Use balancing scales to explore weight **Reading area:** *Enjoy counting books/books that encourage mathematical language, e.g. Hide and Seek (positional language) **Writing area:** *Mark-making *Forming numbers correctly up to 20 and beyond/be able to hold a pencil correctly *Use tools such as tweezers to select and count different objects **Art area:** *Craft activities relating to number - using tools and making own number cards *Use malleable materials to create numbers/counting/explore doubling and halving *Number collages **Construction area:** *Building and construction activities to support mathematical language development. Can you build a tall tower? **Small World area:** *Counting animals or people *How many animals do you have altogether? *Comparing sizes of animals or people/developing mathematical language **Water area:** *Exploring different capacities **Outdoor area:** *Exploring the environment - looking for numbers in the environment *Use natural objects for counting or for representing objects *Recording quantities when playing games - tallies, dots **Snack area:** *Counting fruit/vegetables *Using language of 'more' and 'fewer' *Capacity - water/milk jug

SUBJECT: Mathematics	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Sumer 2

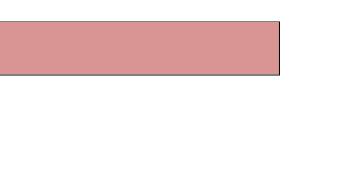| EYFS	Baseline/ Settling in/Travel	Toys	Dinosaurs	Family/ Animals	Space	Sea
	Number and place value *Chanting numbers in order up to 10 and then 20 *Matching items to a numeral *Counting objects by using 1:1 correspondence *Count along 1-6 number track **Problem solving, reasoning and algebra** *Copy, continue, describe and create patterns using colours **Number and place value** *Counting accurately using 1:1 correspondence and conservation of number **Subitise** *Play games involving dice **Geometry: position and direction; Measurement** *Days of the week *Positional language **Mental addition and subtraction** *Subitising numbers up tp 6 *Number pairs up to 5 and 6 *Simple subtractions using number pairs *Recognise that adding and subtracting are inverse operations	**Measurement** *Exploring length and height *Begin to explore capacity through play **Number and place value** *Chanting numbers up to 20 and begin to chant numbers up to 100 *Match spoken numbers and written numerals to appropriate quantities *Write numbers up to 10 *Begin to compare and order numbers to 10 *Money and beginning to recognise that different coins have different values *Order numbers, count on and back from a given number and write numerals 1 to 10. **Geometry: properties of shapes; Measurement** *2D shapes *Describe 2D shapes *Revise the days of the week *Months of the year *Seasons *Key months when festivals/birthdays occur **Mental addition and**	**Number and place value** *Compare and order numbers up to 20 *Estimate numbers of objects and images and begin to understand that teen numbers are ten plus some more **Problem solving, reasoning and algebra** *Explore and identify patterns, including line symmetry *Create and extend repeating patterns *Odd and even numbers *Count in 2s **Mental addition and subtraction;** *Partition sets of ten objects and learn the number pairs to 10 To count and match objects to number sentences *Begin to use the language 'add,' 'more than,' 'equals,' **Mental multiplication and division** *Practical activities and objects to double; they will read doubling stories **Subitise** *Play games which involve quickly revealing and hiding numbers of objects **Geometry: properties of shapes; Measurement** *Explore lengths, heights and weights *Copy, continue, describe and create	***Number and place value** *Compare and order numbers up to 20 *Match a numeral and the correct amount of objects *Estimate *Begin to understand that teen numbers are ten plus some more **Measurement** *Learn the value of coins and to compare and order them according to value *Begin to play with money in a shop/bank/post office **Number and place value; Mental addition and subtraction** *Comparing numbers to 10 and 20 and identify the largest and smallest set *Order numbers to 10 and 20 using the pegged number track **Geometry: position and direction; Measurement** *Revisit the days of the week *Use language related to time *Recognise o'clock times *Key events in their daily routine and in stories *Language of position and direction, including	**Number and place value** *Count up to 100 *Order numbers to 20 *Count back from 20 **Geometry: properties of shapes** *2D/3D shapes *Explore properties of 2D/3D shapes *Compose and decompose shapes **Mental multiplication and division; Problem solving, reasoning and algebra** *Double numbers to 5 and halve even numbers to 10, using objects *Share objects *To count in 2s, 5s and 10s *Odd and even numbers *Revisit doubles and halves **Measurement Length, height, distance** *Revisit the days of the week *Measure time in different ways *Recognise o'clock times *Copy, continue, describe and create	**Number and place value** - *Counting up to 100/counting in 10s to 100 **Mental addition and subtraction; Problem solving, reasoning and algebra** *Counting up to 20 and finding one more/one less than a given number **Mental addition and subtraction; Measurement** *Ordering coins by value/Subtraction by counting back/Begin to recognise and write subtraction number sentences **Measurement** *Lengths/weights/ capacities **Mental addition and subtraction** *All the pairs of numbers with totals of 5, 6 and 10

| | | subtraction

*To be able to say the number that is one more and one less than a given number and understand the corresponding addition and subtraction number sentences

Subitise

*Play games which involve quickly revealing and hiding numbers of objects | patterns using colours, shapes, objects, sounds and actions | 'left' and 'right' in the context of games | patterns using colours, shapes, objects, sounds and actions

Subitise

*Put objects into five frames and then ten frames to begin to familiarise children with the tens structure of the counting system | |

Year 1

Number – Number & place value	
Number – addition & subtraction	
Number – multiplication & division	
Number - fractions	
Geometry	
Measurement	
Statistics	
Ratio & proportion	
Algebra	
Long Term Memory	

Year 1					
Wk 1 - Place value within –Sort, Count and Represent	Wk 7 – Addition & subtraction – bar model	Wk 1 - Addition and Subtraction – Add ones and counting within 20	Wk 7 - Place Value (within 50) **(End Of Block Quiz)**	Wk 1 - Multiplication and Division – Count in 2, 5 and 10	Wk 7 - Place Value (Within 100) Counting and Partitioning
Wk 2 - Place value – Count forwards and backwards	Wk 8 – Addition & subtraction – number bonds	Wk 2 - Addition and Subtraction – Counting back and not crossing 10	Wk 8 - Measurement – Length and Height – Compare and measure height and length	Wk 2 - Multiplication and Division – Make equal group, Arrays	Wk 8 - Place Value (Within 100) Comparing and Ordering **(End Of Block Quiz)**
Wk 3 - Place value – one more/less, greater than/comparing	Wk 9 – Addition & subtraction – Finding difference, Comparing Statements and **(End Of Block Quiz)**	Wk 3 - Addition and Subtraction – Crossing 10	Wk 9 - Measurement – Length and Height Using rulers **(End Of Block Quiz)**	Wk 3- Multiplication and Division – Make equal groups **(End Of Block Quiz)**	Wk 9 - Measurement – Money Recognise and count coins **(End Of Block Quiz)**
Wk 4 - Place value – Comparing/ Ordering	Wk 10 – Geometry – Recognise and Sort 2D & 3D **(End Of Block Quiz)**	Wk 4 - Addition and Subtraction – Compare number sentences **(End Of Block Quiz)**	Wk 10 - Measurement – Weight and Volume – Measure and compare mass	Wk 4 - Fractions – Making and finding a half	Wk 10 - Measurement - Time – Before and after
Wk 5 - Place value – Parts and Wholes	Wk 11– Place Value within 20	Wk 5 - Place Value within 50	Wk 11 - Measurement – Weight and Volume - Measure and Compare capacity **(End Of Block Quiz) (End of Term Assessment)**	Wk 5- Fractions – Making and finding a quarter **(End Of Block Quiz)**	Wk 11 - Measurement – Time – To half an hour **(End Of Block Quiz) (End of Term Assessment)**
Wk 6 - Place value – Identify and Compare number bonds **(End Of Block Quiz)**	Wk 12 - Place Value within 20 – Compare and Order **(End Of Block Quiz) (End of Term Assessment)**	Wk 6 - Place Value within 50		Wk 6 - Geometry - Position and Direction – Describe positions and turns **(End Of Block Quiz)**	

Year 2

Legend:
- Number – Number & place value
- Number – addition & subtraction
- Number – multiplication & division
- Number - fractions
- Geometry
- Measurement
- Statistics
- Ratio & proportion
- Algebra
- Long Term Memory

Wk 1 - Place value – Counting forwards and backwards and comparing below 20 and 50	Wk 7 - Addition and Subtraction – Crossing 10 with 2 and 1 digit	Wk 1 - Multiplication and division –Recognise and make equal groups	Wk 7 - Geometry: Properties of shape – 2 and 3D shapes	Wk 1 - Measurement: length and height – Measure and compare lengths and heights	Wk 7 - Measurement: Time – Telling time to 5 min
Wk 2 - Place value – Counting, reading and representing numbers up to 100	Wk 8 - Addition and Subtraction – Crossing 10 with 2 and 2 digit number	Wk 2 - Multiplication and division –Use arrays and 2, 5 10 tables	Wk 8 - Geometry: Properties of shape – lines of symmetry	Wk 2 - Measurement: length and height – Compare and order lengths and worded problems **(End Of Block Quiz)**	Wk 8 - Measurement: Time – Writing and comparing durations of time **(End Of Block Quiz)**
Wk 3 - Place value –Comparing and ordering	Wk 9 - Addition and Subtraction - Bonds to 100 **(End Of Block Quiz)**	Wk 3 - Multiplication and division – Make equal groups – grouping and sharing	Wk 9 - Geometry: Properties of shape – Edges and vertices 3D shapes **(End Of Block Quiz)**	Wk 3 - Geometry: position and Direction – Describe position and movement	Wk 9 - Measurement: Mass, capacity and Temperature – Weight and mass: measure and compare
Wk 4 - Place value - Count in 2, 5 and 10 **(End Of Block Quiz)**	Wk 10 - Measurement - money Recognising and counting coins	Wk 4 - Multiplication and division – Divide by 2, 5 and 10 **(End Of Block Quiz)**	Wk 10 - Fractions – Recognise half and quarter	Wk 4 - Geometry: position and Direction – Describe turns and make patterns and shapes **(End Of Block Quiz)**	Wk 10 Measurement: Mass, capacity and temperature – Volume and capacity: measure and compare
Wk 5 - Addition and Subtraction – Number bonds	Wk 11 - Measurement - Money – Compare money and find totals	Wk 5 – Statistics – make Tallys and draw pictograms	Wk 11 - Fractions – Find a third and unit and non- unit fractions	Wk 5 – Problem Solving	Wk 11 - Measurement: Mass, capacity and Temperature – Reading temperature **(End of Term Assessment)**
Wk 6 Addition and Subtraction – Bonds to 100	Wk 12 - Multiplication & division – Make equal groups **(End of Term Assessment)**	Wk 6 – Statistics – Draw and interpret pictograms **(End Of Block Quiz)**	Wk 12 - Fractions **(End Of Block Quiz) (End of Term Assessment)**		

Year 3

Legend:
- Number – Number & place value
- Number – addition & subtraction
- Number – multiplication & division
- Number - fractions
- Geometry
- Measurement
- Statistics
- Ratio & proportion
- Algebra
- Long Term Memory

Wk 1 - Place Value – Numbers to 1000	Wk 8	Wk 1 Multiplication and Division – Consolidate 2, 4 and 8 times table	Wk 7 – Statistics – Bar charts and tables **(End Of Block Quiz)**	Wk 1 – Fractions - Tenths	Wk 7 - Geometry: Properties of Shape – Turns and angles
Wk 2 - Place Value – 100, 10 and 1, more and less	Wk 9 - Multiplication and Division – Using the symbols, 2 and 5s	Wk 2 - Multiplication and Division – Multiply and divide by 2 digits	Wk 8 - Measurement: Length and Perimeter – Measure and compare lengths	Wk 2 – Fractions – Sets of objects and equivalents	Wk 8 - Geometry: Properties of Shape – Parallel and perpendicular **(End Of Block Quiz)**
Wk 3 - Place Value – Compare and order, count in 50s **(End Of Block Quiz)**	Wk 10 - Multiplication and Division – Make equal groups, divide by 2, 5 and 10	Wk 3 - Multiplication and Division – Remainders and scalling **(End Of Block Quiz)**	Wk 9 - Measurement: Length and Perimeter – Measure perimeter	Wk 3 – Fractions – Compare and order **(End Of Block Quiz)**	Wk 9 - Measurement: Mass and Capacity – Measure and compare mass
Wk 4 - Addition and Subtraction – Add 3 and 1 digits	Wk 11 - Multiplication and Division – Multiply and divide by 3 and 4	Wk 4 - Measurement: Money – Count and add	Wk 10 - Measurement: Length and Perimeter – Calculate perimeter **(End Of Block Quiz)**	Wk 4 - Measurement: Time Quarter past and to	Wk 10 - Measurement: Mass and Capacity –Measure and compare capacity
Wk 5 - Addition and Subtraction - Subtract 3 and 2 digits	Wk 12 - Multiplication and Division - Multiply and divide by 8 **(End Of Block Quiz) (End of Term Assessment)**	Wk 5 - Measurement: Money – Subtract **(End Of Block Quiz)**	Wk 11 - Fractions – Recognising and finding halves and quarters	Wk 5 - Measurement: Time – am, pm and 24hr clock	Wk 11 - Measurement: Mass and Capacity - Temperature **(End Of Block Quiz) (End of Term Assessment)**
Wk 6 - Addition and Subtraction – Mixed problems		Wk 6 – Statistics – Tally and pictograms	Wk 12 - Fractions – Unit and non-unit fractions **(End of Term Assessment)**	Wk 6 - Measurement: Time – Seconds, comparing durations **(End Of Block Quiz)**	

	Wk 7 – Addition and Subtraction –Exchange and no exchange **(End Of Block Quiz)**		

Year 4

Focus: Multiplication Tables

Legend:
- Number – Number & place value
- Number – addition & subtraction
- Number – multiplication & division
- Number - fractions
- Geometry
- Measurement
- Statistics
- Ratio & proportion
- Algebra
- Long Term Memory

Wk 1 - Place Value – Rounding to 10 and 100	Wk 7 - Addition and Subtraction – Strategies **(End Of Block Quiz)**	Wk 1 - Multiplication and Division – Efficient Multiplication	Wk 7 - Fractions – Add and subtract fractions	Wk 1 - Decimals – Identify and compare decimals	Wk 7 – Statistics – Line graphs and charts **(End Of Block Quiz)**
Wk 2 - Place Value – Partitioning and numbers to 1000	Wk 8 - Length and Perimeter – cm, m and Km equivalents	Wk 2 - Multiplication and Division – Multiply 3 by 1 digit	Wk 8 - Fractions – Calculate fractions of quantity **(End Of Block Quiz)**	Wk 2 - Decimals – Order and round decimals	Wk 8 - Geometry: Properties of Shape – Compare and order angles
Wk 3 - Place Value – Order and round to 1000	Wk 9 - Length and Perimeter – measuring perimeter **(End Of Block Quiz)**	Wk 3 - Multiplication and Division – Divide 3 by 1 digit **(End Of Block Quiz)**	Wk 9 - Decimals –Tenths as decimals	Wk 3 - Measurement: Money – order, compare and convert money	Wk 9 -Geometry: Properties of Shape – Triangles and quadrilaterals
Wk 4 - Place Value – Count in 25s and Roman Numerals **(End Of Block Quiz)**	Wk 10 - Multiplication and Division –Multiply and divide by 100, 10 and 1	Wk 4 - Measurement : Area - Counting squares and comparing areas **(End Of Block Quiz)**	Wk 10 - Decimals - Identify hundredths **(End Of Block Quiz)**	Wk 4 - Measurement: Money – find change, four operations **(End Of Block Quiz)**	Wk 10 - Geometry: Position and Direction - Symmetry
Wk 5 - Addition and Subtraction – Add 4 digit numbers with one exchange	Wk 11 -Multiplication and Division – Multiply and divide by 3 and 6	Wk 5 - Fractions – Equivalent fractions	**(End of Term Assessment)**	Wk 5 - Measurement: Time – Telling the time to the minute	Wk 10 - Geometry: Position and Direction – Grids **(End Of Block Quiz)**
Wk 6 - Addition and Subtraction - Subtract 4 digit numbers with aone exchange	Wk 12 - Multiplication and Division – Multiply and divide by 7 and 9 **(End Of Block Quiz) (End of Term Assessment)**	Wk 6 - Fractions – Fractions greater than 1		Wk 6 - Measurement: Time – Analogue to digital **(End Of Block Quiz)**	**(End of Term Assessment)**

Year 5

Legend:
- Number – Number & place value
- Number – addition & subtraction
- Number – multiplication & division
- Number - fractions
- Geometry
- Measurement
- Statistics
- Ratio & proportion
- Algebra
- Long Term Memory

Wk 1 - Place Value – Rounding to 10, 100 and 1000	Wk 7 – Statistics – Read and interpret line graphs	Wk 1 - Multiplication and Division – Multiply 4 by 1 digit	Wk 7 – Fractions - Subtract fractions and mixed numbers	Wk 1	Wk 7 - Geometry - Properties of Shape. Position and Direction – 3D shape reasoning **(End Of Block Quiz)**
Wk 2 - Place Value – Numbers to a million	Wk 8 – Statistics – Timetables **(End Of Block Quiz)**	Wk 2 - Multiplication and Division – Multiply 4 by 2 digit	Wk 8 - Fractions – Multiplying fractions by integers	Wk 2 – Decimals: Adding decimals	Wk 8 - Geometry - Position and Direction - Translation
Wk 3 - Place Value – Negative numbers and Roman numerals **(End Of Block Quiz)**	Wk 9 - Multiplication and Division – Factors, multiples and prime numbers	Wk 3 - Multiplication and Division - Divide with remainders **(End Of Block Quiz)**	Wk 9 - Fractions – Fraction problem solving **(End Of Block Quiz)**	Wk 3 – Decimals: Adding and subtracting decimals	Wk 9 - Geometry - Position and Direction – Reflection **(End Of Block Quiz)**
Wk 4 - Addition and Subtraction – Add and subtract 4 digit numbers	Wk 10 - Multiplication and Division – Squared and cubed numbers	Wk 4 - Fractions – Improper to mixed fractions	Wk 10 - Decimals & Percentages - Decimals as fractions and thousandths	Wk 4 – Decimals – Multiplying and dividing decimals by 10, 100 and 1000 **(End Of Block Quiz)**	Wk 10 - Converting Units of Measurement – Metric units
Wk 5 - Addition and Subtraction – Inverse operations	Wk 11 - Multiplication and Division – Divide by 10, 100 and 1000 **(End Of Block Quiz)**	Wk 5 – Fractions – Compare and order fractions greater than 1	Wk 11 - Decimals & Percentages - Percentages as decimals and fractions **(End Of Block Quiz)**	Wk 5 - Geometry - Properties of Shape – Using protractors	Wk 11 - Converting Units of Measurement – Imperial units
Wk 6 - Addition and Subtraction – Multi-step problems **(End Of Block Quiz)**	Wk 12 - Measurement – Perimeter and Area – Calculate perimeter	Wk 6 – Fractions – Add 3 or more fractions		Wk 6 - Geometry - Properties of Shape – Drawing angles accuratley	Wk 12 - Converting Units of Measurement – Volume and capacity **(End Of Block Quiz) (End of Term Assessment)**

Wk 13 - Measurement –
Perimeter and
Area – Calculate area of
compound shapes
(End Of Block Quiz)
(End of Term Assessment)

Year 6					
Wk 1 - Place Value – Compare numbers up to ten million	Wk 8 – Fractions – Improper fractions to mixed numbers	Wk 1 – Percentages – Percentages of amounts **(End Of Block Quiz)**	Wk 7 – Ratio – Language and calculation ratio	REVISION	Wk 7 - Consolidation Project 1 White Rose Bakery
Wk 2 - Place Value – Negative numbers and rounding **(End Of Block Quiz)**	Wk 9 – Fractions – Compare and order fractions	Wk 2 – Algebra - Formulae	Wk 8 – Ratio – Ratio and proportion problems **(End Of Block Quiz)**	REVISION	Wk 8 - Consolidation Project 2 White Rose Tours
Wk 3 – Addition and Subtraction – Multi-step worded questions	Wk 10 – Fractions – Add and subtract mixed numbers	Wk 3 – Algebra – Two step equations **(End Of Block Quiz)**	Wk 9 –Statistics – Read and interpret line graphs and pie charts	REVISION	
Wk 4 - Multiplication and Division – Multiply 4 by 2 digits	Wk 11 – Fractions – Multiply fractions by fractions and integers **(End Of Block Quiz)**	Wk 4 - Measurement: Converting Units – Metric and Imperial	Wk 9 - Statistics – Mean average **(End Of Block Quiz)**	SATS WEEK	
Wk 5 - Multiplication and Division – Long division	Wk 12 - Geometry: Position & Direction – Reflections and translations **(End Of Block Quiz)**	Wk 5 - Measurement: Area, Perimeter & Volume **(End Of Block Quiz)**	Wk 10 –Geometry - Properties of shape - Angles	Wk 5 - Consolidation Project 1 White Rose Bakery	Wk 11 - Consolidation Project 3 White Rose Futures
Wk 6 Multiplication and Division - Factors	Wk 13 – Decimals – 3 decimal places **(End Of Block Quiz)**		WK 11 - Geometry: Properties of shape – Drawing 3D nets **(End Of Block Quiz)** **(End of Term Assessment)**		
Wk 7 – Multiplication and Division - Prime, square and cubed numbers **(End Of Block Quiz)**	**(End of Term Assessment)**				

Please note:

- Long Term Memory session topics are at the teachers' discretion and focus on building long term memory skills for the particular needs of the class.

- All blocks must be taught within the given term, however teachers have autonomy on the number of lessons required to focus on a given skill.

- Please refer to the Progression Map to see how skills develop over time.

- Please refer to Medium term plans for detailed breakdown of weekly content.

- Please refer to weekly plans for details of activities, differentiation and resources being used.