St Jude's Catholic Primary School

Mathematics Subject Overview			
Preschool Autumn			
Colours! Learning about different primary colours. Noticing colours in our world.	**Matching & Sorting** Make comparisons and comparing amounts due to size, colour and weight.	**Number 1 & Number 2** Introducing numbers, noticing numbers 1 and 2 in the environment. Linking numerals and amounts up to 2.	**Patterns** Notice patterns and arrange objects into patterns.
Preschool Spring			
Number 3 & Number 4 Introducing numbers, noticing numbers 3 and 4 in the environment. Linking numerals and amounts up to 4.	**Number 5 & Number 6** Introducing numbers, noticing numbers 5 and 6 in the environment. Linking numerals and amounts up to 6.	**Height & Length** Compare the height of 2 objects. Identify which is taller and which is shorter. Explore measuring equipment such as tape measures within provision to notice height in our environment.	**Capacity** Compare the weight of 2 objects. Identify which is lighter and which is heavier. Explore measuring equipment such as scales within provision to notice weight in our environment.
Preschool Summer			
Sequencing Begin to describe a sequence of events, real or fictional. Using terms such as first and last. Discuss routes and locations, and describe a familiar route.	**Position** Understand positional language such as on, under, over and through and use these within provision.	**More than/fewer** To compare quantities using language such as more than and fewer.	**2D/3D shapes** Learn all about different shapes. Use shapes in our environment to make different models, constructions. Matching objects due to shape.

St Jude's Catholic Primary School

Reception	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Getting to Know You Settling in Baseline **Match, Sort and Compare** Match Objects Match pictures and objects Identify a set Sort objects to a type Explore sorting techniques Create sorting rules Compare amounts **Mastery Number weeks 1-5** Subitising within 3 Counting skills Explore how all numbers are made of 1's Composition of 3 and 4 Subitise objects and sounds Comparison of sets- "just by looking"	**Talk about Measure and Pattern** Compare Size Compare Mass Compare Capacity Explore Simple Patterns Copy and Continue Patterns Create Simple Patterns **Circles and Triangles** Identify and name circles and triangles. Compare circles and triangles describe Shapes in the environment position **Mastery Number weeks 6-10** Counting skills, the "five-ness of 5"	**Shapes with 4 Sides** identify and name shapes with 4 sides combine shapes with 4 sides shapes in the environment my day and night **Mass and Capacity** compare mass find a balance explore capacity compare capacity **Mastery Number weeks 11-15** Subitise within 5 Match numerals to quantities within 5 Counting/ ordinality- the staircase pattern One more than Focus on 5	**Length, Height and Time** explore and compare length explore and compare height talk about time order and sequence time **Explore 3D Shapes** recognise and name 3D shapes find 2D shapes within 3D shapes 3D shapes in the environment identify more complex patterns copy and continue patterns patterns in the environment **Mastery Number weeks 16-20** Staircase pattern- ordering numbers Ordering numbers to 8	**Manipulate, compose and decompose** select shapes for a purpose rotate and manipulate shapes explain shape arrangements compose and decompose shapes find 2D shapes within 3D shapes **Mastery Number weeks 21-25** Counting larger sets and things that cannot be seen Subitising to 6 Composition- 5 and a bit Composition of 10 Composition linked to ordinality Play track games	**Visualise, build and map** identify units of repeating patterns create and explore own pattern rules describe positions explore mapping **Make connections** Deepen understanding patterns and relationships **Consolidation** **Mastery Number weeks 26** Subitise to 5 Introduce the rekenrek **Mastery Number weeks 27-31** **Review and assess** Automatic recall of bonds to 5 Composition of numbers to 10 Comparison

	Use the language more than and fewer than.	Comparison of sets by matching The language of comparison: more than, fewer, than and an equal number Explore the concept of whole and part Composition of 3,4 and 5 Counting objects Match numerals to quantities within 10 Verbal counting beyond 20.	Focus on 6 and 7 as "5 and a bit" Compare sets and use the language of comparison Make unequal sets equal	Use language of less than Focus on 7 Doubles/ 2 equal parts Sorting numbers/ odd and even numbers		Number Patterns Counting

By the end of the Reception Year the children will be able to:
Number
ELG: Children at the expected level of development will: - Have a deep understanding of number to 10, including the composition of each number; 14 - Subitise (recognise quantities without counting) up to 5; - Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.
Numerical Patterns
ELG: Children at the expected level of development will: - Verbally count beyond 20, recognising the pattern of the counting system; - Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; - Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

St Jude's Catholic Primary School

Year 1 Autumn		
Number: Place Value	**Number: Addition and Subtraction**	**Properties of Shapes**
• Count to 10 forwards and backwards beginning with 0 or 1 or from any given number • Count, read and write numbers to 10 in numerals; count in multiples of twos, fives and tens. • Given a number, identify one more or one less • Identify and represent numbers using objects and pictorial representation including a number line and use the language of equal to, more than, less than, (fewer) most, least • Read and write numbers from 1 to 10 in numerals and words.	• Read, write and interpret mathematical statements involving addition, subtraction and equal signs • Represent and use number bonds and related subtraction facts within 10 • Add and subtract one-digit numbers to 10 including 0 • Solve one step problems that involve addition and subtraction using concrete objects and pictorial representation and missing number problems.	• Recognise and name common 2-D shapes e.g. square, circle and triangles • Recognise and name common 3-D shapes e.g. Cuboids, cubes, pyramids and spheres

St Jude's Catholic Primary School

Year 1 Spring				
Place Value within 20 • Count to 20 forwards and backwards, beginning with 0 or 1, or from any given number • Count, read and write numbers to 20 in numerals; count in multiples of twos, fives and tens. • Given a number identify one more or one less • Identify and represent numbers using objects and pictorial representation including a number line and use the language of equal to, more than, less than, (fewer) most, least • Read and write numbers to 20 in numerals and words.	**Number: Addition and Subtraction** • Represent and use number bonds and related subtraction facts within 20. • Read, write and interpret mathematical statements involving addition, subtraction and equal signs • Add and subtract one-digit and two-digit numbers to 20 including 0 • Solve one step problems that involve addition and subtraction using concrete objects and pictorial representations, and missing number problems such as 7=? - 9	**Place Value within 50** • Count to 50 forwards and backwards beginning with 0 or 1 or from any given number • Count, read and write numerals to 50 in numerals and words • Given a number, identify one more or one less • Identify and represent numbers using objects and pictorial representation including a number line • Use the language of equal to, more than, less than, (fewer) most, least • Count in multiples of 2's, 5's and 10's	**Measurement: Length and Height** • Measure and begin to record lengths and heights • Compare, describe and solve practical problems for lengths and heights e.g. long/short, longer/shorter, tall/short, double/half	**Measurement: Mass and Volume** • Measure and begin to record mass/weight, capacity and volume • Compare, describe and solve practical problems for mass/weight e.g. heavy/light, heavier than/lighter than, capacity and volume e.g. full/empty, more than/less than, half, half full, quarter

St Jude's Catholic Primary School

Year 1 Summer					
Number: Multiplication and Division • 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.	**Fractions** • 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	**Geometry: Position and Direction** • Describe position, direction and movement including whole, half, quarter and three-quarter turns	**Place Value to 100** • -Count to and across 100 forwards and backwards beginning with 0 or 1 or from any given number • -Count, read and write numerals to 100 in numerals and words • -Given a number, identify one more or one less • Identify and represent numbers using objects and pictorial representation including a number line • -Use the language of equal to, more than, less than, (fewer) most, least	**Measurement: Money** • -Recognise and know the value of different denominations of coins and notes	**Measurement: Time** • -Sequence events in chronological order using language eg before, 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 hands on a clock face to show these times • -Compare, describe and solve practical problems for time e.g. quicker, slower, earlier, later • -Measure and begin to record

					time e.g. hours, minutes seconds

Year 2 Autumn			
Place Value -Read and write numbers to at least 100 in numerals and words. -Recognise the place value of each digit in a 2-digit number (tens & ones) -Identify, represent and estimate numbers using different representations including the number line. -Compare and order numbers from 0 – 100; use < > and = signs. -Use place value and number facts to solve problems -Count in steps of 2,3, 5 and tens from any number forwards and backwards	**Number: Addition and Subtraction** -Recall and use addition & subtraction facts to 20 fluently. Derive and use related facts up to 100. -Add & subtract numbers using concrete objects, pictorial representations and mentally, including two digit numbers and ones, two digit numbers and tens. -Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. -Solve problems with addition and subtraction: using concrete objects and pictorial representations. Include problems involving numbers, quantities and measures. -Recognise and use the inverse relationship between addition and subtraction. -Use this to check calculations and solve missing number problems	**Measurement: Money** -Recognise and use symbols for pounds and pence (£/p) Combine amounts to make a particular value -Find different combinations of coins that make the same amount of money -Solve simple problems practically, including addition and subtraction and giving change.	**Geometry: Properties of shape** -Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line -Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces. -Identify 2D shapes on the surface of 3D shapes e.g a circle on a cylinder and a triangle on a pyramid. -Compare and sort common 2D and 3D shapes and everyday objects.

St Jude's Catholic Primary School

Year 2 Spring			
Number: Multiplication and Division	**Number: Addition and Subtraction**	**Measurement: Length & Weight**	**Measurement: Mass, Capacity & Temperature**
-Recall and use multiplication facts for 2, 5 and 10-times tables including recognising odd and even numbers -Calculate mathematical statements for 2, 5 and 10's using multiplication and division using x, ÷ and = -Solve problems using multiplication and division using, materials, arrays, repeated addition and mental methods. -Show that multiplication of two numbers can be done in any order (commutative) but division cannot.	-Add & subtract numbers using concrete objects, pictorial representations and mentally, including two-digit number and two-digit number and adding 3 one digit numbers. -Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. -Solve problems with addition and subtraction: using concrete objects and pictorial representations. Include problems involving numbers, quantities and measures. -Recognise and use the inverse relationship between addition and subtraction. Use this to check calculations and solve missing number problems	-Choose and use appropriate standards of units to estimate and measure length/height (m/cm) in any direction; mass (kg/g), temperature (®C), capacity (l/ml). -Use rulers, scales thermometers and measuring vessels to the nearest unit. -Compare and order lengths, mass, volume/capacity and record the results using < > and =	-Choose and use appropriate standards of units to estimate and measure length/height (m/cm) in any direction; mass (kg/g), temperature (°C), capacity (l/ml). -Use rulers, scales thermometers and measuring vessels to the nearest unit. -Compare and order lengths, mass, volume/capacity and record the results using < > and =

Year 2 Summer			
Fractions	**Measurement: Time**	**Statistics**	**Geometry: Position and Direction**
-Recognise, find, name and write fractions of a length, shape, set of objects or quantity $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{2}{4}$ and $\frac{3}{4}$ -Write simple fractions for example ½ of 6 = 3 Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	-Tell and write the time to five minutes, including quarter past/to the hour. -Draw hands on a clock to show these times -Know the number of minutes in an hour and the number of hours in a day -Compare and sequence intervals of time	- Interpret and construct simple pictograms, tally charts, block diagrams and simple tables -Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity -Ask and answer questions about totalling and comparing categorical data.	-Use mathematical vocabulary to describe position, direction and movement including in a straight line. -Distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) -Order and arrange combinations of mathematical objects in patterns and sequences.

St Jude's Catholic Primary School

Year 3 Autumn		
Number: Place Value	**Number: Addition and Subtraction**	**Number: Multiplication and Division**
-Recognise the place value of each digit in a three-digit number -Identify, represent and estimate using different representations -Find 10 or 100 more or less than a given number -Compare and order numbers up to 1000 -Read and write numbers in numerals and words up to 1000 -Solve number problems and practical problems involving these ideas. -Count from 0 in multiples of 4, 8, 50 and 100.	-Add and subtract numbers mentally including: 3 digits and ones, 3 digits and tens, 3 digits and hundreds. -Estimate the answer to a calculation and use inverse operations to check answers -Solve problems, including missing numbers, using number facts, place value and more complex addition and subtraction.	-Count from 0 in multiples of 4, 8, 50 and 100 -Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.

St Jude's Catholic Primary School

Year 3 Spring			
Number: Multiplication and Division	**Measurement: Length and Perimeter**	**Number: Fractions**	**Measurement: Mass & Capacity**
-Write and calculate multiplication and division statements for the tables known including 2 digits times 1-digit numbers using mental and formal written methods -Solve problems, including missing numbers involving multiplication and division. -Solve problems including positive integer scaling and correspondence problems in which *n* objects are connected to *m* objects	-Measure, compare, add and subtract lengths (m/cm/mm), mass (kg/g) and volume/capacity (l/ml) -Measure the perimeter of simple 2D shapes.	-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 -Recognise and show, using diagrams, equivalent fractions with small denominators -Compare and order unit fractions, and fractions with the same denominators -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 -Solve problems that involve all of the above.	-Measure, compare, add and subtract lengths (m/cm/mm), mass (kg/g) and volume/capacity (l/ml)

St Jude's Catholic Primary School

Year 3 Summer				
Number: Fractions	**Measurement: Money**	**Measurement: Time**	**Geometry: Properties of Shape**	**Statistics**
-Add and subtract fractions with the same denominator within one whole [for example, 5/7 + 1/7 = 6/7 -Solve problems that involve all of the above.	-Add and subtract amounts of money to give change using £ and p in practical contexts.	-Tell and write the time from an analogue clock -Tell and write the time from an analogue clock with Roman Numerals I to XII -Tell the 12 hour and 24-hour time -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, am/pm, morning, afternoon, noon and midnight -Know the number of seconds in a minute -Know the number of days in each month -Know the number of days in a year and leap year **-Compare durations of events (time taken by particular events or tasks)**	-Recognise angles as a property of shape or a description of a turn -Identify right angles -Recognise that 2 right angles make a half turn, 3 make three quarters of a turn, and 4 make a complete turn -Identify whether angles are greater than or less than a right angle -Identify horizontal and vertical lines. Identify pairs of perpendicular and parallel lines -Draw 2D shapes and make 3D shapes using modelling material -Recognise 3D shapes in different orientations and describe them	-Interpret and present data using bar charts, pictograms and tables -Using information presented in scaled bar charts, pictograms and tables, solve one step and two step questions e.g. How many more? How many fewer?

Year 4 Autumn			
Number: Place Value -Count in multiples of 6, 7, 9, 25 and 1000 -Find 1000 more or less than a given number -Recognise the place value of each digit in a 4-digit number -Order and compare numbers beyond 1000 -Identify, represent and estimate numbers using different representations -Round any number to the nearest 10, 100 and 1000 -Count backwards through zero to negative numbers -Solve number and practical problems will all of the above.	**Number: Addition and Subtraction** -Add and subtract numbers with up to 4 digits using the formal written method of columnar addition and subtraction where appropriate -Estimate and use inverse operations to check answers to a calculation -Solve addition and subtraction two step problems in context, deciding which operations and methods to use and why.	**Measurement: Area** -Find the area of rectilinear shapes by counting squares	**Number: Multiplication and Division** - Recall and use multiplication and division facts for multiplication tables up to 12 X 12 -Count in multiples of 6, 7, 9, 25 and 1000 -Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1, dividing by 1 -Multiplying together 3 numbers -Solve problems involving multiplying and adding including using the distributive law to multiply 2-digit numbers by 1 digit; integer scaling problems and correspondence problems such as *n* objects are connected to *m* objects

St Jude's Catholic Primary School

Year 4 Spring			
Number: Multiplication and Division	**Measurement: Length and Perimeter**	**Number: Fractions**	**Number: Decimals**
-Recognise and use factor pairs and commutativity in mental calculations -Multiply 2 digit and 3-digit numbers by a one-digit number using formal written layout -Solve problems involving multiplying and adding including using the distributive law to multiply 2-digit numbers by 1 digit; integer scaling problems and correspondence problems such as *n* objects are connected to *m* objects	-Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m -Convert between different units of measure e.g. km to m	-Recognise and show, using diagrams, families of common equivalent fractions -Count up and down in hundredths -Recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 -Add and subtract fractions with the same denominator -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	-Recognise and write decimal equivalents of any number of tenths or hundredths. -Find the effect of dividing a one- or two-digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths -Solve simple measure and money problems involving fractions and decimals to two decimal places. -Convert between different units of measure [for example, kilometre to metre]

St Jude's Catholic Primary School

Year 4 Summer					
Number: Decimals -Compare numbers with the same number of decimal places up to two decimal places. -Round decimals with one decimal place to the nearest whole number. -Recognise and write decimal equivalents to ¼ ½ and ¾ -Understand the effect of dividing a one- or two-digit number by 10 or 100. -Identifying the value of the digits in the answer as ones, tenths and hundredths.	**Measurement: Money** -Estimate, compare and calculate different measures, including money in pounds and pence. -Solve simple measure and money problems involving fractions and decimals to two decimal places.	**Measurement: Time** -Read, write and convert time between analogue and digital 12- and 24-hour clocks. -Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	**Geometry: Properties of shape** -Identify acute and obtuse angles -Compare and order angles up to 2 right angles by size -Compare and classify geometric shapes including quadrilaterals and triangles, based on their properties and size -Identify lines of symmetry in 2D shapes presented in different orientations	**Statistics** -Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. -Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	**Geometry: Position and Direction** -Describe on a 2D grid as coordinates in the first quadrant -Plot specified points and draw sides to complete a given polygon -Describe movements between positions as translations of a given unit to the left/right and up/down.

St Jude's Catholic Primary School

Year 5 Autumn			
Number: Place Value	**Number: Addition and Subtraction** -Add and subtract numbers mentally with increasingly large numbers -Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar) -Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy -Solve addition and subtraction multi-step problems in contexts, deciding with operations and methods to use and why.	**Number: Multiplication and Division** -Multiply and divide numbers mentally drawing upon known facts -Multiply and divide whole numbers by 10, 100 and 1000 -Identify multiples and factors -Find all factor pairs of a number and common factors of 2 numbers -Recognise and use square numbers and cube numbers using the notations ($e.g\ 3^2$ and 4^3) -Solve problems involving multiplication and division including using knowledge of factors and multiples, squares and cubes -Know and use vocabulary of prime numbers, prime factors and composite (non-prime) numbers -Establish whether a number up to 100 is a prime and recall prime numbers up to 19	**Number: Fractions** -Compare and order fractions whose denominators are multiples of the same number. -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 e.g $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1\frac{1}{5}$ -Add and subtract fractions with the same denominator and denominators that are multiples of the same number.

St Jude's Catholic Primary School

Year 5 Spring				
Number: Multiplication and Division	**Number: Fractions**	**Number: Decimals and Percentages**	**Measurement: Perimeter and Area**	**Statistics**
-Multiply and divide numbers mentally drawing upon known facts. -Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for 2-digit numbers. -Divide numbers up to 4 digits by a 1- digit number using the formal written method of short division and interpret remainders appropriately for the context. -Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign.	-Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	-Read, write, order and compare numbers with up to three decimal places. -Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. -Round decimals with two decimal places to the nearest whole number and to one decimal place. -Solve problems involving number up to three decimal places. -Recognise the percent symbol (%) and understand that percent relates to 'number of parts per hundred', -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	-Measure and calculate the perimeter of composite rectilinear shapes in cm and m -Calculate and compare the area of rectangles (including squares) using standard units cm2/m2 -Estimate the area of irregular shapes	-Solve comparison, sum and difference problems using information presented in a line graph -Complete, read and interpret information in tables including timetables.

		fractions with a denominator of a multiple of 10 or 25		

St Jude's Catholic Primary School

Year 5 Summer					
Geometry: Shape -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.	**Geometry: Position and Direction** -Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. -Use the properties of rectangles to deduce related facts and find missing lengths and angles. -Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. -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 ½ a turn	**Number: Decimals** -Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. -Multiply 1-digit numbers with up to 2 decimal places by whole numbers. -Use written division methods in cases where the answer has up to 2 decimal places. -Solve problems which require answers to be rounded to specified degrees of accuracy.	**Negative numbers** -Interpret negative numbers in context -Count forwards and backwards with positive and negative whole numbers including through zero	**Measurement: Converting Units** -Convert between different units of metric measure [for example, km and m; cm and m; cm and mm; g and kg; l and ml] -Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. -Solve problems involving converting between units of time.	**Measurement: Volume** -Estimate volume (e.g. using 1cm^3 blocks to build cuboids, including cubes) and capacity (e.g. using water) -Use all 4 operations to solve problems involving measure

	(total 180°) other multiples of 90°				

St Jude's Catholic Primary School

Year 6 Autumn			
Place Value	**Number: Four Operations**	**Fractions**	**Measurement: Converting Units**
-Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit -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 the above	-Solve addition and subtraction multi-step problems in contexts deciding which operations and methods to use and why -Multiply multi-digit numbers up to 4 digits by a 2-digit number using the formal written method of long multiplication -Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division. -Divide numbers up to 4 digits by a 2-digit number using the formal written method of short division	-Use common factors to simplify fractions -Use common multiples to express fractions in the same denomination -Compare and order fractions, including fractions >1 -Generate and describe linear number sequences (with fractions) -Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions -Multiply simple pairs of proper fractions writing the	-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 3 dp. -Convert between miles and kilometres.

	-Interpret remainders as whole number remainders, fractions or by rounding as appropriate for the context -Perform mental calculations, including with mixed operations and large numbers -Identify common factors, common multiples and prime numbers -Use their knowledge of the order of operations to carry out calculations involving the four operations -Solve problems involving addition, subtraction, multiplication and division -Use estimation to check answers to calculations and determine in context of a problem, an appropriate degree of accuracy	answer in its simplest form e.g. $\frac{1}{4}$ X $\frac{1}{2}$ = $\frac{1}{8}$ -Divide proper fractions by whole numbers e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$ -Associate a fraction with division and calculate decimal fraction equivalents -Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts	

St Jude's Catholic Primary School

Year 6 Spring					
Ratio -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 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.	**Algebra** -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.	**Decimals** -Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. -Multiply 1-digit numbers with up to 2 decimal places by whole numbers. -Use written division methods in cases where the answer has up to 2 decimal places. -Solve problems which require answers to be rounded to specified degrees of accuracy.	**Fractions, decimals and percentages** -Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison. -Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.	**Measurement: Perimeter, Area & Volume** -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 cm3 , m3 and extending to other units (mm3 , km3)	**Statistics** -Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. -Interpret and construct pie charts and line graphs and use these to solve problems. -Calculate the mean as an average.

St Jude's Catholic Primary School

Year 6 Summer SATS		
Properties of Shape -Draw 2-D shapes using given dimensions and angles. -Compare and classify geometric shapes based on their properties and sizes and 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.	**Geometry: Position and Direction** -Describe positions on the full co-ordinate grid (all 4 quadrants) -Draw and translate simple shapes on the co-ordinate plane and reflect them in the axes	**Transition** Complete transition units