St Jude's Catholic Primary School

| Mathematics Subject Overview | | | |
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| **Preschool Autumn** | | | |
| **Colours!**<br>Learning about different primary colours. Noticing colours in our world. | **Matching & Sorting**<br>Make comparisons and comparing amounts due to size, colour and weight. | **Number 1 & Number 2**<br>Introducing numbers, noticing numbers 1 and 2 in the environment.<br>Linking numerals and amounts up to 2. | **Patterns**<br>Notice patterns and arrange objects into patterns. |
| **Preschool Spring** | | | |
| **Number 3 & Number 4**<br>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**<br>Compare the height of 2 objects. Identify which is taller and which is shorter.<br>Explore measuring equipment such as tape measures within provision to notice height in our environment. | **Capacity**<br>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**<br>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**<br>Understand positional language such as on, under, over and through and use these within provision. | **More than/fewer**<br>To compare quantities using language such as more than and fewer. | **2D/3D shapes**<br>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 |
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| | **Getting to Know You**<br>Settling in<br>Baseline<br><br>**Match, Sort and Compare**<br>Match Objects<br>Match pictures and objects<br>Identify a set<br>Sort objects to a type<br>Explore sorting techniques<br>Create sorting rules<br>Compare amounts<br><br>**Mastery Number weeks 1-5**<br>Subitising within 3<br>Counting skills<br>Explore how all numbers are made of 1's<br>Composition of 3 and 4<br>Subitise objects and sounds<br>Comparison of sets- "just by looking" | **Talk about Measure and Pattern**<br>Compare Size<br>Compare Mass<br>Compare Capacity<br>Explore Simple Patterns<br>Copy and Continue Patterns<br>Create Simple Patterns<br><br>**Circles and Triangles**<br>Identify and name circles and triangles.<br>Compare circles and triangles<br>describe Shapes in the environment<br>position<br><br>**Mastery Number weeks 6-10**<br>Counting skills, the "five-ness of 5" | **Shapes with 4 Sides**<br>identify and name shapes with 4 sides<br>combine shapes with 4 sides<br>shapes in the environment<br>my day and night<br><br>**Mass and Capacity**<br>compare mass<br>find a balance<br>explore capacity<br>compare capacity<br><br>**Mastery Number weeks 11-15**<br>Subitise within 5<br>Match numerals to quantities within 5<br>Counting/ ordinality- the staircase pattern<br>One more than<br>Focus on 5 | **Length, Height and Time**<br>explore and compare length<br>explore and compare height<br>talk about time order and sequence time<br><br>**Explore 3D Shapes**<br>recognise and name 3D shapes<br>find 2D shapes within 3D shapes<br>3D shapes in the environment<br>identify more complex patterns<br>copy and continue patterns<br>patterns in the environment<br><br>**Mastery Number weeks 16-20**<br>Staircase pattern- ordering numbers<br>Ordering numbers to 8 | **Manipulate, compose and decompose**<br>select shapes for a purpose<br>rotate and manipulate shapes<br>explain shape arrangements<br>compose and decompose shapes<br>find 2D shapes within 3D shapes<br><br>**Mastery Number weeks 21-25**<br>Counting larger sets and things that cannot be seen<br>Subitising to 6<br>Composition- 5 and a bit<br>Composition of 10<br>Composition linked to ordinality<br>Play track games | **Visualise, build and map**<br>identify units of repeating patterns<br>create and explore own pattern rules<br>describe positions<br>explore mapping<br>**Make connections**<br>Deepen understanding patterns and relationships<br>**Consolidation**<br><br>**Mastery Number weeks 26**<br>Subitise to 5<br>Introduce the rekenrek<br><br>**Mastery Number weeks 27-31**<br>**Review and assess**<br>Automatic recall of bonds to 5<br>Composition of numbers to 10<br>Comparison |

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| | Use the language more than and fewer than. | Comparison of sets by matching<br>The language of comparison: more than, fewer, than and an equal number<br>Explore the concept of whole and part<br>Composition of 3,4 and 5<br>Counting objects<br>Match numerals to quantities within 10<br>Verbal counting beyond 20. | Focus on 6 and 7 as "5 and a bit"<br>Compare sets and use the language of comparison<br>Make unequal sets equal | Use language of less than<br>Focus on 7<br>Doubles/ 2 equal parts<br>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<br>• Count, read and write numbers to 10 in numerals; count in multiples of twos, fives and tens.<br>• Given a number, identify one more or one less<br>• 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<br>• Read and write numbers from 1 to 10 in numerals and words. | • Read, write and interpret mathematical statements involving addition, subtraction and equal signs<br>• Represent and use number bonds and related subtraction facts within 10<br>• Add and subtract one-digit numbers to 10 including 0<br>• 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<br>• Recognise and name common 3-D shapes e.g. Cuboids, cubes, pyramids and spheres |

# St Jude's Catholic Primary School

| Year 1 Spring | | | | |
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| **Place Value within 20**<br><br>• Count to 20 forwards and backwards, beginning with 0 or 1, or from any given number<br>• Count, read and write numbers to 20 in numerals; count in multiples of twos, fives and tens.<br>• Given a number identify one more or one less<br>• 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<br>• Read and write numbers to 20 in numerals and words. | **Number: Addition and Subtraction**<br><br>• Represent and use number bonds and related subtraction facts within 20.<br>• Read, write and interpret mathematical statements involving addition, subtraction and equal signs<br>• Add and subtract one-digit and two-digit numbers to 20 including 0<br>• 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**<br><br>• Count to 50 forwards and backwards beginning with 0 or 1 or from any given number<br>• Count, read and write numerals to 50 in numerals and words<br>• Given a number, identify one more or one less<br>• Identify and represent numbers using objects and pictorial representation including a number line<br>• Use the language of equal to, more than, less than, (fewer) most, least<br>• Count in multiples of 2's, 5's and 10's | **Measurement: Length and Height**<br><br>• Measure and begin to record lengths and heights<br>• Compare, describe and solve practical problems for lengths and heights e.g. long/short, longer/shorter, tall/short, double/half | **Measurement: Mass and Volume**<br><br>• Measure and begin to record mass/weight, capacity and volume<br>• 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 | | | | | |
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| **Number: Multiplication and Division**<br><br>• 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**<br><br>• Recognise, find and name a half as one of two equal parts of an object, shape or quantity<br>• Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity | **Geometry: Position and Direction**<br><br>• Describe position, direction and movement including whole, half, quarter and three-quarter turns | **Place Value to 100**<br><br>• -Count to and across 100 forwards and backwards beginning with 0 or 1 or from any given number<br>• -Count, read and write numerals to 100 in numerals and words<br>• -Given a number, identify one more or one less<br>• Identify and represent numbers using objects and pictorial representation including a number line<br>• -Use the language of equal to, more than, less than, (fewer) most, least | **Measurement: Money**<br><br>• -Recognise and know the value of different denominations of coins and notes | **Measurement: Time**<br><br>• -Sequence events in chronological order using language eg before, after, next, first, today, yesterday, tomorrow, morning, afternoon and evening<br>• -Recognise and use language relating to dates including days of the week, weeks, months and years<br>• Tell the time to the hour and half past the hour and draw hands on a clock face to show these times<br>• -Compare, describe and solve practical problems for time e.g. quicker, slower, earlier, later<br>• -Measure and begin to record |

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| | | | | | time e.g. hours, minutes seconds |

# St Jude's Catholic Primary School

| Year 2 Autumn | | | |
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| **Place Value**<br><br>-Read and write numbers to at least 100 in numerals and words.<br>-Recognise the place value of each digit in a 2-digit number (tens & ones)<br>-Identify, represent and estimate numbers using different representations including the number line.<br>-Compare and order numbers from 0 – 100; use < > and = signs.<br>-Use place value and number facts to solve problems<br>-Count in steps of 2,3, 5 and tens from any number forwards and backwards | **Number: Addition and Subtraction**<br>-Recall and use addition & subtraction facts to 20 fluently. Derive and use related facts up to 100.<br>-Add & subtract numbers using concrete objects, pictorial representations and mentally, including two digit numbers and ones, two digit numbers and tens.<br>-Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.<br>-Solve problems with addition and subtraction: using concrete objects and pictorial representations. Include problems involving numbers, quantities and measures.<br>-Recognise and use the inverse relationship between addition and subtraction.<br>-Use this to check calculations and solve missing number problems | **Measurement: Money**<br><br>-Recognise and use symbols for pounds and pence (£/p) Combine amounts to make a particular value<br>-Find different combinations of coins that make the same amount of money<br>-Solve simple problems practically, including addition and subtraction and giving change. | **Geometry: Properties of shape**<br><br>-Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line<br>-Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces.<br>-Identify 2D shapes on the surface of 3D shapes e.g a circle on a cylinder and a triangle on a pyramid.<br>-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<br>-Calculate mathematical statements for 2, 5 and 10's using multiplication and division using x, ÷ and =<br>-Solve problems using multiplication and division using, materials, arrays, repeated addition and mental methods.<br>-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.<br>-Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.<br>-Solve problems with addition and subtraction: using concrete objects and pictorial representations. Include problems involving numbers, quantities and measures.<br>-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).<br>-Use rulers, scales thermometers and measuring vessels to the nearest unit.<br>-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).<br>-Use rulers, scales thermometers and measuring vessels to the nearest unit.<br>-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 $\frac{3}{4}$<br>-Write simple fractions for example ½ of 6 = 3<br>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.<br>-Draw hands on a clock to show these times<br>-Know the number of minutes in an hour and the number of hours in a day<br>-Compare and sequence intervals of time | - Interpret and construct simple pictograms, tally charts, block diagrams and simple tables<br>-Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity<br>-Ask and answer questions about totalling and comparing categorical data. | -Use mathematical vocabulary to describe position, direction and movement including in a straight line.<br>-Distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)<br>-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<br>-Identify, represent and estimate using different representations<br>-Find 10 or 100 more or less than a given number<br>-Compare and order numbers up to 1000<br>-Read and write numbers in numerals and words up to 1000<br>-Solve number problems and practical problems involving these ideas.<br>-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.<br>-Estimate the answer to a calculation and use inverse operations to check answers<br>-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<br>-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<br>-Solve problems, including missing numbers involving multiplication and division.<br>-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)<br>-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<br>-Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators<br>-Recognise and show, using diagrams, equivalent fractions with small denominators<br>-Compare and order unit fractions, and fractions with the same denominators<br>-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<br>-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<br>-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<br>-Tell and write the time from an analogue clock with Roman Numerals I to XII<br>-Tell the 12 hour and 24-hour time<br>-Estimate and read time with increasing accuracy to the nearest minute<br>-Record and compare time in terms of seconds, minutes and hours<br>-Use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight<br>-Know the number of seconds in a minute<br>-Know the number of days in each month<br>-Know the number of days in a year and leap year<br>**-Compare durations of events (time taken by particular events or tasks)** | -Recognise angles as a property of shape or a description of a turn<br>-Identify right angles<br>-Recognise that 2 right angles make a half turn, 3 make three quarters of a turn, and 4 make a complete turn<br>-Identify whether angles are greater than or less than a right angle<br>-Identify horizontal and vertical lines.<br>Identify pairs of perpendicular and parallel lines<br>-Draw 2D shapes and make 3D shapes using modelling material<br>-Recognise 3D shapes in different orientations and describe them | -Interpret and present data using bar charts, pictograms and tables<br>-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**<br><br>-Count in multiples of 6, 7, 9, 25 and 1000<br>-Find 1000 more or less than a given number<br>-Recognise the place value of each digit in a 4-digit number<br>-Order and compare numbers beyond 1000<br>-Identify, represent and estimate numbers using different representations<br>-Round any number to the nearest 10, 100 and 1000<br>-Count backwards through zero to negative numbers<br>-Solve number and practical problems will all of the above. | **Number: Addition and Subtraction**<br><br>-Add and subtract numbers with up to 4 digits using the formal written method of columnar addition and subtraction where appropriate<br>-Estimate and use inverse operations to check answers to a calculation<br>-Solve addition and subtraction two step problems in context, deciding which operations and methods to use and why. | **Measurement: Area**<br><br>-Find the area of rectilinear shapes by counting squares | **Number: Multiplication and Division**<br><br>- Recall and use multiplication and division facts for multiplication tables up to 12 X 12<br>-Count in multiples of 6, 7, 9, 25 and 1000<br>-Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1, dividing by 1<br>-Multiplying together 3 numbers<br>-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<br>-Multiply 2 digit and 3-digit numbers by a one-digit number using formal written layout<br>-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<br>-Convert between different units of measure e.g. km to m | -Recognise and show, using diagrams, families of common equivalent fractions<br>-Count up and down in hundredths<br>-Recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10<br>-Add and subtract fractions with the same denominator<br>-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.<br>-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<br>-Solve simple measure and money problems involving fractions and decimals to two decimal places.<br>-Convert between different units of measure [for example, kilometre to metre] |

# St Jude's Catholic Primary School

| Year 4 Summer | | | | | |
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| **Number: Decimals**<br><br>-Compare numbers with the same number of decimal places up to two decimal places.<br>-Round decimals with one decimal place to the nearest whole number.<br>-Recognise and write decimal equivalents to ¼ ½ and ¾<br>-Understand the effect of dividing a one- or two-digit number by 10 or 100.<br>-Identifying the value of the digits in the answer as ones, tenths and hundredths. | **Measurement: Money**<br><br>-Estimate, compare and calculate different measures, including money in pounds and pence.<br>-Solve simple measure and money problems involving fractions and decimals to two decimal places. | **Measurement: Time**<br><br>-Read, write and convert time between analogue and digital 12- and 24-hour clocks.<br>-Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. | **Geometry: Properties of shape**<br><br>-Identify acute and obtuse angles<br>-Compare and order angles up to 2 right angles by size<br>-Compare and classify geometric shapes including quadrilaterals and triangles, based on their properties and size<br>-Identify lines of symmetry in 2D shapes presented in different orientations | **Statistics**<br><br>-Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.<br>-Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. | **Geometry: Position and Direction**<br>-Describe on a 2D grid as coordinates in the first quadrant<br>-Plot specified points and draw sides to complete a given polygon<br>-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 | | | |
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| **Number: Place Value** | **Number: Addition and Subtraction**<br>-Add and subtract numbers mentally with increasingly large numbers<br>-Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar)<br>-Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy<br>-Solve addition and subtraction multi-step problems in contexts, deciding with operations and methods to use and why. | **Number: Multiplication and Division**<br>-Multiply and divide numbers mentally drawing upon known facts<br>-Multiply and divide whole numbers by 10, 100 and 1000<br>-Identify multiples and factors<br>-Find all factor pairs of a number and common factors of 2 numbers<br>-Recognise and use square numbers and cube numbers using the notations ($e.g\ 3^2$ and $4^3$)<br>-Solve problems involving multiplication and division including using knowledge of factors and multiples, squares and cubes<br>-Know and use vocabulary of prime numbers, prime factors and composite (non-prime) numbers<br>-Establish whether a number up to 100 is a prime and recall prime numbers up to 19 | **Number: Fractions**<br>-Compare and order fractions whose denominators are multiples of the same number.<br>-Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths.<br>-Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number<br>e.g $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1\frac{1}{5}$<br>-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.<br>-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.<br>-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.<br>-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.<br>-Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.<br>-Round decimals with two decimal places to the nearest whole number and to one decimal place.<br>-Solve problems involving number up to three decimal places.<br>-Recognise the percent symbol (%) and understand that percent relates to 'number of parts per hundred',<br>-Write percentages as a fraction with denominator 100, and as a decimal.<br>-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<br>-Calculate and compare the area of rectangles (including squares) using standard units cm2/m2<br>-Estimate the area of irregular shapes | -Solve comparison, sum and difference problems using information presented in a line graph<br>-Complete, read and interpret information in tables including timetables. |

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| | | fractions with a denominator of a multiple of 10 or 25 | | |

# St Jude's Catholic Primary School

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

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| | (total 180°) other multiples of 90° | | | | |

# St Jude's Catholic Primary School

| Year 6 Autumn | | | |
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| **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<br>-Round any whole number to a required degree of accuracy<br>-Use negative numbers in context and calculate intervals across zero<br>-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<br>-Multiply multi-digit numbers up to 4 digits by a 2-digit number using the formal written method of long multiplication<br>-Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division.<br>-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<br>-Use common multiples to express fractions in the same denomination<br>-Compare and order fractions, including fractions >1<br>-Generate and describe linear number sequences (with fractions)<br>-Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions<br>-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.<br>-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.<br>-Convert between miles and kilometres. |

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

# St Jude's Catholic Primary School

| Year 6 Spring | | | | | |
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| **Ratio** | **Algebra** | **Decimals** | **Fractions, decimals and percentages** | **Measurement: Perimeter, Area & Volume** | **Statistics** |
| -Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.<br>-Solve problems involving similar shapes where the scale factor is known or can be found.<br>-Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. | -Use simple formulae.<br>-Generate and describe linear number sequences.<br>-Express missing number problems algebraically.<br>-Find pairs of numbers that satisfy an equation with two unknowns.<br>-Enumerate possibilities of combinations of two variables. | -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.<br>-Multiply 1-digit numbers with up to 2 decimal places by whole numbers.<br>-Use written division methods in cases where the answer has up to 2 decimal places.<br>-Solve problems which require answers to be rounded to specified degrees of accuracy. | -Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison.<br>-Recall and use equivalences between simple fractions, decimals and percentages including in different contexts. | -Recognise that shapes with the same areas can have different perimeters and vice versa.<br>-Recognise when it is possible to use formulae for area and volume of shapes.<br>-Calculate the area of parallelograms and triangles.<br>-Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm3 , m3 and extending to other units (mm3 , km3 ) | -Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.<br>-Interpret and construct pie charts and line graphs and use these to solve problems.<br>-Calculate the mean as an average. |

# St Jude's Catholic Primary School

| **Year 6 Summer SATS** | | |
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| **Properties of Shape**<br><br>-Draw 2-D shapes using given dimensions and angles.<br>-Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons.<br>-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**<br>-Describe positions on the full co-ordinate grid (all 4 quadrants)<br>-Draw and translate simple shapes on the co-ordinate plane and reflect them in the axes | **Transition**<br><br>Complete transition units |