ST. JOHN BOSCO RC PRIMARY SCHOOL

Long Term Plan		Ready to Progress Criteria/ Assessment Guidance		Year Group:	4

	Autumn Term		Spring Term		Summer Term	
	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half
Number and Place Value	**Number and Place Value** 4NPV–1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100. • How many 100g servings of rice are there in a 2,500g bag? • One large desk costs a school £100. How much will 14 large desks cost? • My school field is 100m long. How many times do I have to run its length to run 3km? • My cup contains 100 ml of fizzy drink. The bottle contains 10 times as much. How many millilitres are there in the bottle? • A rhino mother weighs about 1,000kg. She weighs about 10 times as much as her baby. What is the approximate weight of the baby rhino? • Circle the lengths that could be made using 1 metre (100cm) sticks. 4NPV–2 Place value in four-digit numbers	4NPV–3 Four-digit numbers in the linear number system Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each • Using a number line. Which 2 numbers round to 5,600 when rounded to the nearest hundred? b. Round each number to the nearest thousand. Estimate the value of each number • Estimate how much liquid is in the beaker. Estimate how much liquid needs to be added to make 1 litre. • Estimate and mark the position of 600g on this scale. • The bar chart shows the number of red and blue cars that passed a school in one day. Estimate the number of red and blue cars that passed the school on this day. Estimate the number of blue cars that passed the school on this day. Add the following data for other coloured cars to the bar chart • Fill in the missing numbers. 4NPV–4 Reading scales with 2, 4, 5 or 10 intervals Divide 1,000 into 2, 4, 5 and 10				

	Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning. • Complete the calculations. • football stadium can hold 6,430 people. So far 4,000 tickets have been sold for a match. How many tickets are left? • On a field trip, the children need to walk 4,200m. So far they have walked 3km. How much further do they have to walk? • Mr. Davis has 2 cats. One cat weighs 4,200g. The other cat weighs 3,050g. Their basket weighs 2kg. How much does the basket weigh with both cats inside it?	equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. • Fill in the missing numbers. • What is the reading on each of these scales? • Fill in the missing numbers. • What is the reading on each of these scales? • The beaker contains 1 litre of water. If I pour out 600ml, how much is left? Mark the new water level on the picture. • A motorway repair team can build 250m of motorway barrier in 1 day. In 5 working days, how many metres of motorway barrier can they build? • How many 500ml bottles can I fill from a 3 litre container of water? • The pictogram shows how many cans a class recycled in 2020. How many cans did the class recycle in 2020? • 1kg of strawberries is shared equally between 5 people. How many grams of strawberries do they each get? • I have already swum 750m. How much further do I need to go to swim 2km? • Fill in the missing parts, and write as many different equations as you can think of to describe the structure. • The bar charts show the number of red and blue cars that passed 3 different schools on a given day. How many red and blue cars				

		passed each school? • Fill in the missing numbers.				
Addition and Subtraction **Multiplication and Division** **Fractions**	**Addition and Subtraction** Addition and subtraction: extending 3AS–3 • Pupils should also extend columnar addition and subtraction methods to four-digit numbers. • Pupils must be able to add 2 or more numbers using columnar addition, including calculations whose addends have different numbers of digits. • For calculations with more than 2 addends, pupils should add the digits within a column in the most efficient order. For the third example above, efficient choices could include: beginning by making 10 in the ones column. making double-6 in the hundreds column • Pupils must be able to subtract one four-digit number from another using columnar subtraction. They should be able to apply the columnar method to calculations where the subtrahend has fewer digits than the minuend, and must be able to exchange through 0. • Pupils should make sensible decisions	**Multiplication and Division** 4NF–3 Scaling number facts by 100. Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) • I need 1kg of flour to make some bread. I have 800g. How many more grams of flour do I need? • A builder can buy bricks in pallets of 600. How many pallets should she buy if she needs 1,800 bricks? • Dexter ran round a 400m running track 6 times. How far did he run? • I mix 700ml of orange juice and 600ml of lemonade to make a fruit drink for a party. What volume of fruit drink have I made in total? • A farmer had 1,200m of fencing to put up round his fields. He put up the same amount of fencing each day, and it took him 6 days to put up all the fencing. How many metres of fencing did he put up each day? • Fill in the missing numbers. 4MD–1 Multiplying and dividing by 10 and 100. Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. • Fill in the missing numbers • Bethany has 15 marbles. Nasir has 100 times as many. How many marbles does Nasir have?	**Multiplication and Division** 4NF–1 Recall of multiplication tables. Recall multiplication and division facts up to 1212×, and recognise products in multiplication tables as multiples of the corresponding number. • A regular hexagon has sides of 7cm. What is its perimeter? • A regular octagon has a perimeter of 72cm. What is the length of each of the sides? • It takes Latoya 8 minutes to walk to school. It takes Tatsuo 3 times as long. How long does it take Tatsuo to walk to school? • An egg box contains 6 eggs. I need 54 eggs. How many boxes should I buy? • 8 children spend a day washing cars and earn £40 altogether. If they share the money equally how much do they each get? • Circle the numbers that are multiples of 3.	**Number: Fractions** 4F–1 Mixed numbers in the linear number system Reason about the location of mixed numbers in the linear number system. • Add labels to each mark on the number lines. • What are the values of a, b, c and d? • Estimate the position of the following numbers on the number line. • How much water is in the beaker? Write your answer as a mixed number. • Circle the larger number in each of these pairs. Explain your reasoning. 4F–2 Convert between mixed numbers and improper fractions Convert mixed numbers to improper fractions and vice versa. • Which of these fractions are equivalent to a whole number? Explain how you know. • Express the following mixed numbers as improper fractions. • Express the following improper fractions as mixed numbers. • Sarah wants to convert 17/4 to a mixed number. She writes:	**Number: Fractions** 4F–3 Add and subtract improper and mixed fractions (same denominator) Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers • It is a 2 ¾ km cycle ride to my friend's house, and a further ¾ km ride to the park. How far do I have to cycle altogether? • I have 5m of rope. I cut off 4/ 10m. How much rope is left? • Fill in the missing numbers. • The table below shows the number of hours Josie read each day during a school week. For how long did Josie read altogether? • A tailor has 3 7/10 m of ribbon. She uses 1 9/10 m to complete a dress. How much ribbon is left?	

	about how and when to use columnar subtraction. For example, when the minuend is a multiple of 1,000, they may transform to an equivalent calculation before using column subtraction, avoiding the need to exchange through zeroes.	• Sumaya's walk from her home to school is 130m. Millie's walk is 10 times as far. How far does Millie walk to get to school? 4MD–2 Manipulating the multiplicative relationship Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. • Using pictures of vases of flowers, draw two pictures which can be represented by the equation 5420×=. • Write as many multiplication and division equations as you can to represent each picture. • Write a story that could be represented by this equation 3x7=21 • Using pictures of apples in bowls, draw 2 pictures which can be represented by the equation 18 divided by 3=6 • Use 15x16=240 to write 3 other related multiplication and division equations. • 45kg of animal feed is shared between some horses. They each get 5kg. How many horses were there? • 1m 40cm of ribbon was cut into equal pieces. Each piece is 14cm long. How many pieces of ribbon are there? • Fill in the missing numbers. 4NF–2 Division problems with remainders Solve division problems, with two-digit dividends and one-digit		17/4 = 3 5/4 Explain what mistake Sarah has made, and write the correct answer. • The school kitchen has 17 packs of butter. Each pack weighs1/4kg. How many kilograms of butter do they have altogether? Express your answer as a mixed number. • I have a 6 ½ m length of string. How many 1/2m lengths can I cut?		

		divisors, that involve remainders, and interpret remainders appropriately according to the context. • Which of these division calculations have the answer of 3 r 2? • I have 60 metres of bunting for the school fair. What length of bunting will be left over if I cut it into lengths of 8 metres? • 32 • It takes 7 minutes to make a pom-pom. How many complete pom-poms can Malik make in 30 minutes? • 23 apples are shared equally between 4 children. How many whole apples does each child get? • Ruby writes: 37 divided by 5= 6 r7 Explain what mistake Ruby has made, and write the correct answer. • Decide whether each calculation has a remainder or not. Explain how you can do this without doing each calculation?				
Geometry **Measurement** **Statistics**		**Measurement Length and Perimeter** 4G–2 Perimeter: regular and irregular polygons Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons. • Taro uses some 8cm sticks to make these shapes. Name each shape and find its perimeter. • Drawn to scale.				**Geometry: Properties of shape** 4G–3 Identify line symmetry in 2D shapes Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry. • Draw one or more lines of reflection symmetry in each of these irregular

		• What is the perimeter of this shape? • Sarah draws a rhombus with a perimeter of 36cm. What is the length of each side? • Here is a plan of a school playground. How many metres of fencing is needed to put a fence around the perimeter? • Name each shape and say whether it is regular or irregular. Explain your reasons.				hexagons. • Reflect the three shapes in the mirror line. • Complete the shape by reflecting it in the mirror line. Name the polygon that you have completed. • Draw a line of symmetry on each shape. Are you able to draw more than one line of symmetry on any of the shapes? • Complete the symmetrical pattern. • **Geometry: Position and Direction (2 weeks)** 4G–1 Draw polygons specified by coordinates or by translation Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. • Translate the quadrilateral so that point A moves to point B. • A kite has been translated from position A to position B. Describe the translation. • Mark the points, and join them to make a square. • This triangle is translated so that point A moves to (4, 3). Draw the shape in its new position. • Mark the following points, and join them

						to make a polygon. What is the name of the polygon that you have drawn? • c. Translate the polygon you have just drawn left 2 and up 3. What are the coordinates of the vertices of this new polygon?