



ST. JOHN BOSCO RC PRIMARY SCHOOL

Long Term Plan		Ready to Progress Criteria/ Assessment Guidance				Year Group:	5
Autumn Term		Spring Term		Summer Term			
1st Half		2nd Half		1st Half		2nd Half	
Number and Place Value	<p>Number and Place Value 5NPV-1 Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.</p> <ul style="list-style-type: none"> An apple weighs about 0.1kg. Approximately how many apples are there in a 1.8kg bag? I have a 0.35m length of wooden rod. How many 0.01m lengths can I cut it into? Mrs Jasper is juicing oranges. Each orange makes about 0.1 litres of juice. If Mrs Jasper juices 22 oranges, approximately how many litres of orange juice will she get? Circle all of the numbers that are equal to a whole number of tenths. Fill in the missing numbers. Match the numbers on the left with the equivalent fractions on the right. 	<p>5NPV-2 Place value in decimal fractions. Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.</p> <ul style="list-style-type: none"> Complete the calculations. Circle the numbers that add together to give a total of 0.14 Fill in the missing numbers. I have 3.7kg of modelling clay. If we use 2kg, how much will be left? I will use 0.65 litres of milk for one recipe, and 0.23 litres of milk for another. How much milk will I use altogether? Ilaria jumped 3.19m in a long jump competition. Emma jumped 3.12m. How much further did Ilaria jump than Emma? Maya cycled 7.3km to get to her friend's house, and then cycled a further 0.6km to the park. How far did Maya cycle altogether? 	<p>Decimals and percentages 5NPV-3 Decimal fractions in the linear number system Reason about the location of any number with up to 2 decimal places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.</p> <ul style="list-style-type: none"> Place each of these numbers on the number line. The table shows how far some children jumped in a long-jump competition. Who jumped the furthest and won the competition? Who came third in the competition? How much further did Kagendo jump than Faisal? How much further did Ilaria jump than Charlie? Fill in the missing symbols (<, > or =). Here is a weighing 	<p>5NPV-4 Reading scales with 2, 4, 5 or 10 intervals Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.</p> <ul style="list-style-type: none"> Fill in the missing parts, and write as many different equations as you can think of to represent the bar model. Fill in the missing numbers 5 children have been growing sunflowers. The bar chart shows how tall each child's sunflower has grown. How tall is each flower? The bar chart below shows long-jump distances for 6 children. How far did the winning child jump? What was the difference between the two longest jumps? Complete the labelling of these scales. What is the reading on each of these scales, in kilograms? Here is a 1 litre beaker with some liquid in. How much more 	<p>Decimals 5NF-2 Scaling number facts by 0.1 or 0.01 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth)</p> <ul style="list-style-type: none"> Circle the numbers that sum to 0.13 Are these calculations correct? Mark each correct calculation with a tick and each incorrect calculation with a cross. Explain your answers. live 0.4km away from school. Every day I walk to school in the morning and home again in the afternoon. How far do I walk each day? How far do I walk in 5 days? Some children are making bunting for the school fair. If each child makes 0.4m of bunting, and there are 12 children, how many metres of bunting do they make altogether? A chef needs 2.4kg 	<p><i>Place value concepts will continue to be a focus in the remaining terms as part of memory jogger and daily maths meetings</i></p>	

			<p>scale. Estimate the mass in kilograms that the arrow is pointing to.</p> <ul style="list-style-type: none"> Estimate and mark the position of 0.7 litres on this beaker. Fill in the missing numbers. A farmer weighed each of 6 new-born lambs. Round the mass of each lamb to the nearest whole kilogram. I need 4.25 metres of ribbon. How much is this to the nearest tenth of a metre? How much is this to the nearest metre? If ribbon is sold only in whole metres, how many metres do I need to buy? 	<p>liquid, in litres, do I need to add to the beaker to make 1 litre?</p> <ul style="list-style-type: none"> A motorway repair team can build 0.2km of motorway barrier in 1 day. In 6 working days, how many kilometres of motorway barrier can they build? How many 0.25 litre servings of orange juice are there in a 2 litre carton? 0.25m of ribbon costs £1. How much does 2m of ribbon cost? Fill in the missing numbers. Here is a part of a number line divided into 4 equal parts. In which section (a, b, c or d) does each of these numbers belong? Explain your answers. 	<p>of potatoes for a recipe. If one potato weighs about 0.3kg, approximately how many potatoes does the chef need?</p> <ul style="list-style-type: none"> A bottle contains 0.7 litres of fruit drink. Maria need 5 litres of drink for a party. How many bottles does she need to buy? I need 0.5kg of brown flour and 0.7kg of white flour for a recipe. What is the total mass of flour that I need? What is the total volume of liquid in these measuring beakers, in litres? 	
<p>Addition and Subtraction</p> <p>Multiplication and Division</p> <p>Fractions</p>	<p>Addition and Subtraction Addition and subtraction: extending 3AS–3</p> <ul style="list-style-type: none"> Pupils should also extend columnar addition and subtraction methods to numbers with up to 2 decimal places. 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 	<p>Multiplication and Division 5NF–1 Secure fluency in multiplication and division facts Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.</p> <ul style="list-style-type: none"> Assessment for this criterion should focus on whether pupils have fluency in multiplication facts and division facts. Pupils can be assessed through a time-limited written check. <p>5MD–1 Multiplying and dividing by 10 and 100 Multiply and divide numbers by</p>	<p>Multiplication and Division 5MD–3 Multiply using a formal written method. Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.</p> <ul style="list-style-type: none"> Fill in the missing numbers Draw a line to match each multiplication expression with the correct addition expression. Josh cycles 255 	<p>Number: Fractions 5F–1 Find non-unit fractions of quantities Find non-unit fractions of quantities</p> <ul style="list-style-type: none"> Stan bought 15 litres of paint and used $\frac{2}{3}$ of it decorating his house. How much paint has he used? My granny lives 120km from us. We are driving to see her and are $\frac{5}{6}$ of the way there. How far have we driven so far? I am $\frac{3}{4}$ of the way through my holiday. I 		

	<p>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 tenths column. making double-6 in the ones column</p> <ul style="list-style-type: none"> ▪ Pupils must be able to subtract one number from another using columnar subtraction, including numbers with up to 2 decimal places. They should be able to apply the columnar method to calculations presented as, for example, $21.8 - 9.29$ or $5814.69 -$, where the subtrahend has more decimal places than the minuend. Pupils must also be able to exchange through 0. ▪ Pupils should make sensible decisions about how and when to use columnar methods. For example, when subtracting a decimal fraction from a whole number, pupils may be able to use their knowledge of complements, avoiding the need to exchange through zeroes. For example, to calculate $8 - 4.85$ pupils should be able to work out that the decimal 	<p>10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.</p> <ul style="list-style-type: none"> • Fill in the missing numbers • Ruby ran 2.3km. Her mum ran 10 times this distance. How far did Ruby's mum run? • A zookeeper weighs an adult gorilla and its baby. The adult gorilla has a mass of 149.3kg. The baby gorilla has a mass one-tenth times that of the adult gorilla. How much does the baby gorilla weigh, in kilograms? • The length of a new-born crocodile is about 0.25m. The length of an adult female crocodile is about 2.5m. Approximately how many times as long as a new-born crocodile is an adult female crocodile? <p>5MD-2 Find factors and multiples. Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.</p> <ul style="list-style-type: none"> • Write all of the numbers from 1 to 30 in the correct places on this Venn diagram. • Circle any number that is a multiple of both 3 and 7. • Find a common factor of 48 and 64 that is greater than 6. • How many common multiples of 4 and 6 are there that are less than 40? • Circle any number that is a factor of both 24 and 36 	<p>metres in 1 minute. If he keeps cycling at the same speed, how far will he cycle in 8 minutes?</p> <ul style="list-style-type: none"> • A factory packs biscuits into boxes of 9. The factory produces 1,350 packets of biscuits in a day. How many biscuits is that? • Ellen has 1 large bag of 96 marbles, and 4 smaller bags each containing 76 marbles. How many marbles does she have altogether? • There are 6 eggs in a box. If a farmer needs to deliver 1,275 boxes of eggs to a supermarket, how many eggs does she need? • Aryan's grandmother lives 235 kilometres away from Aryan. His aunt lives 3 times that distance away from Aryan. How far away does Aryan's aunt live from him? How far is this to the nearest 100 kilometres? • Felicity can make 5 hairbands in 1 hour. A factory can make 235 times as many. How many 	<p>have 3 days of holiday left. How many days have I already been on holiday for?</p> <ul style="list-style-type: none"> • A school is trying to raise £7,500 for charity. They have raised $\frac{5}{6}$ of the total so far. How much have they raised? • $\frac{4}{5}$ of the runners in a race have finished the race so far. If 92 people have finished, how many runners were in the race altogether? • There are 315 cows on a farm. $\frac{3}{5}$ of the cows are having calves this year. How many cows are not having calves? <p>5F-2 Find equivalent fractions. Find equivalent fractions and understand that they have the same value and the same position in the linear number system.</p> <ul style="list-style-type: none"> • Find different ways to write the fraction of each shape or quantity that is shaded or highlighted. • Draw lines to match the unit fractions on the left with their equivalent fractions on the right. • Mark each fraction on the number line. • Use the numbers 3, 24, 8 and 1 to complete this chain of equivalent fractions. 		
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	<p>complement to 5 from 4.85 is 0.15, and that the total difference is therefore 3.15.</p>	<ul style="list-style-type: none"> Find a multiple of 30 that is between 200 and 300. Find a multiple of 40 that is between 300 and 400. Find a multiple of 50 that is between 400 and 500. Show that 3 is a factor of 231. Fill in the table with examples of 2-, 3- and 4-digit numbers that are multiples of 9, 25 and 50. Give two 2-digit factors of 270. Find 3 numbers which are multiples of 25 but not multiples of 50. Fill in the missing numbers 	<p>hairbands can the factory make in 1 hour?</p> <p>5MD–4 Divide using a formal written method Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context</p> <ul style="list-style-type: none"> Fill in the missing numbers I have $1\frac{1}{2}$ litres of juice which I need to share equally between 6 glasses. How many millilitres of juice should I pour into each glass? school fair raises £5,164. The school keeps $\frac{1}{4}$ of the money for new playground equipment and gives the rest to charity. How much money does the school keep? Fryderyk has saved 4 times as much money as his sister Gabriel. If Fryderyk has saved £348, how much has Gabriel saved? A farmer has 3,150 eggs to pack into boxes of 6. How many boxes does she need? Sharif wants to 	<ul style="list-style-type: none"> Fill in the missing digits. Sally and Tahira each have a 1m ribbon. Sally cuts her ribbon into 5 equal parts and uses 1 of them to make a hair tie. Tahira cuts her ribbon into 10 equal parts and uses 3 of them to make a bracelet. Have Sally and Tahira used the same amount of ribbon? Explain your answer. <p>5F–3 Recall decimal equivalents for common fractions. Recall decimal fraction equivalents for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$ and for multiples of these proper fractions.</p> <ul style="list-style-type: none"> Fill in the missing symbols (<, > or =). Write these measurements as mixed numbers Write these measurements as decimals. My brother weighs 27.3kg. I weigh $27\frac{1}{5}$ kg. How much more than my brother do I weigh? Year 6 set off on a $2\frac{3}{4}$ km woodland walk. By lunch, they had walked 1.75km. How much further do they need to walk? Here are two parcels: What is the total combined weight of the parcels, in 		
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			<p>walk a long distance, for charity, over 6 weekends. The total distance Sharif wants to walk is 293km.</p> <p>Approximately how far should he walk each weekend?</p> <ul style="list-style-type: none"> • Maria makes 1,531g of cake mix. She puts 250g into a small cake tin and wants to share the rest equally between 3 large cake tins. How many grams of cake mix should she put in each large cake tin? • 174 children are going on a trip. 4 children can fit into each room in the hostel. How many rooms are needed? 	<p>kilograms?</p> <ul style="list-style-type: none"> • Put each set of numbers in order from smallest to greatest. 		
<p>Geometry</p> <p>Measurement</p> <p>Statistics</p>	<p>Statistics (2 weeks)</p> <ul style="list-style-type: none"> • To interpret charts • To use charts to solve comparison, sum and difference problems • To use line graphs • To read and interpret line graphs • To draw line graphs • To use line graphs to solve problems • To read and interpret tables • To use two-way tables • To read timetables 	<p>Measurement: Perimeter and Area</p> <p>5G–2 Compare and calculate areas. Compare areas and calculate the area of rectangles (including squares) using standard units.</p> <ul style="list-style-type: none"> • For each pair of shapes, tick the shape with the larger shaded area. • Find the area of these shapes drawn on a square-centimetre grid. • Here are three shapes on a triangular grid. Put the shapes in order from smallest to largest according 			<p>Geometry: Properties of shape</p> <p>5G–1 Compare, estimate, measure and draw angles. Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size</p> <ul style="list-style-type: none"> • Here is an irregular pentagon. Which is the largest angle in this pentagon? Which is the smallest angle? Which angle is 100°? • Here are 6 angles. Which is the largest 	<p>Geometry: Position and Direction (2 weeks)</p> <ul style="list-style-type: none"> • To describe position • To draw position on a grid • To find position in the first quadrant • To translate shapes • To translate with coordinates • To identify lines of symmetry • To complete a symmetric figure • To reflect shapes • To reflect with

		<p>to their area.</p> <ul style="list-style-type: none"> • Draw a rectangle with an area of 12cm^2 on this square-centimetre grid. Draw a hexagon with an area of 12cm^2 on this square-centimetre grid. • Find the area of each of these rectangles. • Leila is putting some tiles on the wall behind her kitchen sink. Each tile is square, with sides equal to 10cm. Here is the area she has tiled so far. If Leila adds one more row of tiles on top of these ones, what is the total area she will have tiled? • Each half of a volleyball court is a $9\text{m} \times 9\text{m}$ square. What is the total area of a volleyball court? • Estimate the area of your classroom floor. 			<p>angle? Which is the smallest angle? Which angle is 45°?</p> <ul style="list-style-type: none"> • This pentagon has a line of symmetry. Estimate the size of each angle. • Measure and label each of the angles in these shapes using a protractor. • Draw an angle of 68°. Draw an angle of 103°. 	<p>coordinates</p> <p>Measurement: Converting Units 5NPV-5 Convert between units of measure Convert between units of measure, including using common decimals and fractions.</p> <ul style="list-style-type: none"> • Fill in the missing numbers to complete these conversions between units. • Put these volumes in order from smallest to largest. • Put these lengths in order from smallest to largest. • Maya needs to post 3 parcels. The mass of each parcel is shown below. How much do the parcels weigh altogether, in kilograms? • Finn has a $7\frac{1}{2}\text{m}$ length of wood. How many $\frac{3}{4}\text{m}$ length pieces can he cut from it? • I need $1\frac{1}{4}\text{kg}$ of flour for a recipe. I pour some flour into the weighing scales. How much more flour do I need for the recipe? • Fill in the values in the empty circles so that each row and column of 3 circles adds to 5km. <p>Measurement: Volume (1 week)</p> <ul style="list-style-type: none"> • To recognise and describe volume
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