ST. JOHN BOSCO RC PRIMARY SCHOOL

Long Term Plan		Ready to Progress Criteria/ Assessment Guidance		Year Group:	3
	Autumn Term	**Spring Term**		**Summer Term**	
Number and Place Value	3NPV-1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10. • How many 10cm lengths can a 310cm length of ribbon be cut into? • The school office sells 52 poppies for 10p each. How much money have they collected altogether? • I take 10ml of medicine every day. How many days will a 250ml bottle last? • Marek is 2 years old, and has a mass of 10kg. His father's mass is 10 times as much. What is the mass of Marek's father? • Janey saves up £100. This is 10 times as much money as her brother has. How much money does her brother have? • Circle the numbers that are multiples of 10. Explain your answer. • 640 300 105 510 330 409 100 864 3NPV-2 Recognise the place value of each digit in three-digit numbers and compose and decompose three-digit numbers using standard and				

	non-standard partitioning. • What number is represented by these counters? • What number is represented by this expression? • Fill in the missing numbers to complete these partitioning diagrams. • Fill in the missing numbers • Fill in the missing symbols (<, > or =). • There are 365 days in a year. If it rains on 65 days of the year, on how many days does it not rain? • A bamboo plant was 4m tall. Then it grew by another 83cm. How tall is the bamboo plant now? Express your answer in centimetres. • In the school library there are 25 books on the trolley and 250 books on the shelves. How many books are there altogether? • Francesco had 165 marbles. Then he gave 45 marbles to his friend. How many marbles does Francesco have now? • The tree outside Cecily's house in 308cm tall. How much further would it have to grow to reach the bottom of Cecily's bedroom window, at 3m 68cm? 3NPV-3 Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.				

- Fill in the missing numbers.
- Estimate to fill in the missing numbers.
- Estimate and mark the position of these numbers on the number line.
- Look at lines A, B and C. Can you estimate how long they are by comparing them to the 1,000cm lines?7
- Estimate the mass, in grams, shown on this weighing scale.

3NPV–4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.

- Fill in the missing numbers.
- What were Jenny and Asif's scores? (read the bar graph)
- Miss Scot weighs herself. How much does she weigh, in kilograms? (Read scale)
- How many centimetres long is the ribbon?
- How many 25p cupcakes can I buy for £5?
- How many 50cm lengths of wood can I cut from a 3m plank?
- We raise £100 at the school fair and divide the money equally between 5 charities. How much does each charity get?
- Stan counts from 0 in multiples of 25. Circle the numbers he will say.

Problem Solving
- Engage with

	mathematical activities and problems making links and moving between different representations (concrete, pictorial and abstract) • Independently choose to scaffold thinking using concrete, pictorial or abstract representations if required Reasoning • Provide a convinced argument				
Addition and Subtraction **Multiplication and Division** **Fractions**	3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice. • Mr Kahn drove 8km to get to his friend's house, and then drove another 3km with his friend to get to the gym. How far did Mr Kahn drive? • There are 12 children. 5 of them can ride a bicycle and the rest cannot. How many of the children cannot ride a bicycle? • Maja had £17. Then she spent £9. How much money does she have left? • I have 6 metres of red ribbon and 6 metres of blue ribbon. How many metres of ribbon do I have altogether? • 27 • Hazeem is growing a sunflower and a bean plant. So far, his sunflower plant is 14cm tall and his bean plant is 8cm tall. How much taller is the sunflower plant than the bean	3AS–1 Calculate complements to 100. • Which of these are correct complements to 100 and which have an extra 10? Tick the correct column. Explain your answers. • Fill in the missing numbers. • A dressmaker had 1m of ribbon. Then she used 22cm of it. How many centimetres of ribbon does she have left? • A toy shop sells ping-pong balls for 65p each. If I use a £1 coin to pay for a ping-pong ball, how much change will I get, in pence? • Mr Jones has 100 stickers. 47 of them are gold and the rest are silver. How many are silver? 3AS-2 Add and subtract up to three-digit numbers using columnar methods • Solve these calculations using columnar addition or columnar subtraction. • Year 3 want to buy	3NF–2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number. • A spider has 8 legs. If there are 5 spiders, how many legs are there altogether? • A book costs £5. How much do 6 books cost? • 18 socks are put into pairs. How many pairs are there? • Felicity wants to buy a scooter for £60. If she pays with £10 notes, how many notes does she need? • Circle the numbers that are multiples of 4. 3NF–3 Apply place-value knowledge to known multiplicative number facts (scaling facts by 10 • A garden table costs £80 and 2 garden chairs each cost £60. How much do the 2 chairs and the table cost altogether? • 130 people are expected		3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. • What fraction of each diagram is shaded? • Does each diagram show the given fraction? Explain your answers. • What fraction of each diagram is shaded/ highlighted? • or cross each diagram to show whether 3/5 is shaded. Explain your answers. • Shade 1/10 of this set. • Shade 3/4of this shape. • Circle 4/5of the flowers. • d. Colour 1/3 of the line 3F–2 Find unit fractions of quantities using known division facts (multiplication tables fluency). • Rohan saved £32. He spends 14of his money on a toy. How much does he spend? • Find: 1/5 of 35, 1/10

	plant? 3NF–3 Apply place-value knowledge to known additive number facts (scaling facts by 10). • A garden table costs £80 and 2 garden chairs each cost £60. How much do the 2 chairs and the table cost altogether? • 130 people are expected at a concert. So far 70 people have arrived. How many more people are due to arrive? • A family ticket for a safari park is £40. 3 families go together. How much do the 3 family tickets cost altogether? • Fill in the missing numbers. **Problem Solving** • Engage with mathematical activities and problems making links and moving between different representations (concrete, pictorial and abstract) • Independently choose to scaffold thinking using concrete, pictorial or abstract representations if required Reasoning • Provide a convinced argument	some sports equipment which costs £472. So far they have raised £158. How much more money do they need to raise? • Cheryl has £135. She spends £53 on some new trainers. How much money does she have left? • There are 172 non-fiction books in the school library and 356 fiction books. How many books are there in the library altogether? • Fill in the missing numbers. • Mahsa carries out the following columnar addition calculation. • Write a columnar subtraction calculation that she could do to check that her calculation is correct. • Complete the following calculations. Choose carefully which method to use. 3AS-3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition and understand the related property for subtraction. • Fill in the missing numbers. **Problem Solving** • Engage with mathematical activities and problems making links and moving between different	at a concert. So far 70 people have arrived. How many more people are due to arrive? • A family ticket for a safari park is £40. 3 families go together. How much do the 3 family tickets cost altogether? • Fill in the missing numbers. 3MD-1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division. • Circle the expressions that match the picture. • If one sweet costs 3p, how much do 8 sweets cost? • I need to buy 32 metres of fencing to go around my garden. The fencing is sold in 8-metre lengths. How many 8-metre lengths do I need to buy? • There are 24 strawberries in a tub. I share them equally between the 4 people in my family. How many does each person get? • A gardener has 5 plant pots. She plants 6 seeds in each pot. How many seeds does she plant altogether? Problem Solving • Independently choose to represent thinking using concrete, pictorial or abstract representations as appropriate • Independently find an		of 40, 1/8 of 24 • The school caretaker buys 50 litres of paint. She uses 1/5 of it to paint the year 3 classroom. How many litres of paint is this? • There are 16 apples in a fruit bowl. Some children eat 1/4 of the apples. How many are left? 3F–3 Reason about the location of any fraction within 1 in the linear number system. • Label the points on this number line. • How tall is this plant? Give your answer as a fraction of a metre. • Which is larger, 6/8 or 3/8? Explain your answer. • Which is larger, 1/4 or 1/3? Explain your answer. • Gemma and Kasper look at this number line. Gemma says the arrow is pointing to the number 34. Kasper says the arrow is pointing to the number 35. Who is correct? Explain your answer. • Add the missing labels to the measuring jug. 3F–4 Add and subtract fractions with the same denominator, within 1. • Complete the calculations. • Diego writes: 3/12 = 5/12 = 8/12 Mark writes:3/12+5/12=8/2 Who is correct? Explain the mistake that has been made. • Decide whether each calculation is correct or	

		representations (concrete, pictorial and abstract) • Independently choose to scaffold thinking using concrete, pictorial or abstract representations if required Reasoning • Provide a convinced argument	efficient way to solve a range of problems Reasoning • Reflect on others' convinced explanations and use this to improve their work Rich Tasks • Music to My Ears • Ordering Cards • Number Detectives • Ring a Ring of Numbers • More Numbers in the Ring • Clapping Times • Even and Odd • How Odd Pairs of Legs • Two Numbers Under the Microscope • Odd Time Even • Double or Halve? • Always, Sometimes, Never? • Table Teaser • Which Symbol?		not. Explain your answers. • Sofia had a jug containing 7/10 of a litre of juice. She drank 4/10 of a litre. How much does she have left? Problem Solving • Independently work systematically • Independently find possibilities using patterns spotted to support • Independently check and improve work (look for other possibilities, repeats, missing answers, errors and ways to improve) • Pattern spot and predict what will come next in a pattern/ sequence (numbers, shape or spatial) • Independently investigate conjectures and provide examples and counter-examples • When they have solved a problem, pose a similar problem for a peer Reasoning ▪ Edit and improve their own and a peer's convinced explanation ▪ Investigate 'what if?' questions • Create 'what if?' questions Rich Tasks • Happy Halving • Halving • Fair Feast • Fraction Match • Matching Fractions	

| Geometry

Measurement | | Problem Solving
• Engage with mathematical activities and problems making links and moving between different representations (concrete, pictorial and abstract)
• Independently choose to scaffold thinking using concrete, pictorial or abstract representations if required
Reasoning
• Provide a convinced argument | Measurement: Money (No RTP)
• Recognise coins and notes
• Count money- pence
• Count money- pounds (notes and coins)
• Count money- notes and coins
• Select money
• Make the same amount
• Compare money
• Find the total
• Find the difference
• Find change
• Solve two-step problems

Problem Solving
• Independently choose to represent thinking using concrete, pictorial or abstract representations as appropriate
• Independently find an efficient way to solve a range of problems
Reasoning
• Reflect on others' convinced explanations and use this to improve their work | Statistics (No RTP)
• Make tally charts
• To draw pictograms (2, 5 and 10)
• Interpret pictograms (2,5 and 10)
• Construct and interpret pictograms
• Construct and interpret Bar Charts
• Construct and interpret tables

Measurement: Length and Perimeter (No RTP)
▪ Measure length
▪ Measure length in metres
▪ Find equivalent lengths- m and km
▪ Find equivalent lengths- mm and cm
▪ Compare lengths
▪ Add lengths
▪ Subtract lengths
▪ Measure perimeter
▪ Calculate perimeter

Problem Solving
• Independently choose to represent thinking using concrete, pictorial or abstract representations as appropriate
• Independently find an efficient way to solve a range of problems
Reasoning
• Reflect on others' convinced explanations and use this to improve their work | Measurement: Time (No RTP)
• Use o'clock and half past
• Use quarter past and quarter to
• Tell the time to 5 minutes
• Tell the time to the minute
• Use a.m. and p.m.
• Tell time using the 24-hour clock
• Find the duration
• Compare durations
• Calculate start and end times
• Measure time in seconds
• Calculate the number of hours in a day
• Recognise months and years

Problem Solving
• Independently work systematically
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• Independently investigate conjectures and provide examples and counter-examples
• When they have solved a problem, pose a similar problem for a peer | 3G-1 Recognise right angles as a property of shape or a description of a turn and identify right angles in 2D shapes presented in different orientations.
• Here is a map of a treasure island.
• a. Follow the instructions and say where you end up. Each time, start at the camp, facing north. Go forwards 3 squares. Make a quarter turn clockwise. Go forwards 2 squares. Make a quarter turn anticlockwise. Go forwards 2 squares. Where are you? Make a three-quarter turn clockwise. Go forward 3 squares. Make a quarter turn anticlockwise. Go forward 1 square. Where are you? Start at the camp, facing North. Write some instructions, like the ones above, to get to the treasure.
• Draw an irregular hexagon with one right angle on this grid.
• Mark all of the right angles in these shapes. Use a right-angle checker to help you.
3G-2 Draw polygons by joining marked points |

						and identify parallel and perpendicular sides.
					▪ Edit and improve their own and a peer's convinced explanation ▪ Investigate 'what if?' questions ▪ Create 'what if?' questions	• Task: Provide each pupil with 2 trapezium pieces from a pattern block set. Then ask them to make 3 different shapes by joining the pieces and discuss the properties of each shape they make. • Here are 5 vertices of a regular hexagon. Mark the sixth vertex and join the points to draw the hexagon. • Here are 2 sides of a square. Complete the square. • Look at these 5 quadrilaterals. Mark all the pairs of parallel sides. Hint: you can extend sides to help you. • Mark the missing vertex of this quadrilateral so that 2 of the sides are perpendicular. **Measurement: Mass and Capacity (No RTP)** • Compare mass • Measure mass • Add and subtract mass • Compare volume • Measure capacity • Add and subtract capacity • Measure and describe

						temperature
  • Pattern spot and predict what will come next in a pattern/ sequence (numbers, shape or spatial) Reasoning • Edit and improve their own and a peer's convinced explanation						**Problem Solving** • Independently work systematically • Independently find possibilities using patterns spotted to support • Independently check and improve work (look for other possibilities, repeats, missing answers, errors and ways to improve) • Pattern spot and predict what will come next in a pattern/ sequence (numbers, shape or spatial) • Independently investigate conjectures and provide examples and counter-examples • When they have solved a problem, pose a similar problem for a peer **Reasoning** ▪ Edit and improve their own and a peer's convinced explanation ▪ Investigate 'what if?' questions ▪ Create 'what if?' questions