

Understanding Place Value : Maths : Year 3 : Autumn Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To recognise the place value of each digit in a three-digit number.	Recap how to partition a two-digit number into tens and ones, before exploring how to partition a three-digit number into hundreds, tens and ones. Identify the value of each digit in a three-digit number and order numbers from smallest to largest. Practise expressing numbers in both numerals and words.	<ul style="list-style-type: none"> Can children identify place value in 3-digit numbers? Can children write numbers in digits? Can children write numbers in words? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C Digit Cards 1A/1B Calculators (FSD? activity only)
Lesson 2	To understand the value of each digit in numbers up to 1000 and to be able to order numbers.	Order numbers with two, three and four digits and recap the value of each digit in a number. Children can play a game to compare two numbers, or generate their own numbers to order into a number chain.	<ul style="list-style-type: none"> Can the children order two-digit numbers correctly? Can the children order three-digit numbers correctly? Can the children order four-digit numbers correctly? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C/2D/2E Dice (FSD? activity only)
Lesson 3	To be able to find 10 and 100 more or less than a given number.	Add ten or one hundred more or less to three-digit numbers. Use dienes blocks as a visual representation for this, before expressing in number sentences. Children can either complete a series of diagrams to demonstrate their knowledge of adding/taking away ten or one hundred, or answer questions where the numbers are expressed in words.	<ul style="list-style-type: none"> Can children find 10 more and less than a given number? Can children find 100 more and less than a given number? Can children read numbers in numerals and words? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C/3D Question Cards 3A/3B (FSD? activity only)
Lesson 4	To be able to use knowledge of place value to solve missing number problems.	Children will use their understanding of place value to solve missing number addition problems, using deconstruction of numbers. They can also match numbers represented in numerical, pictorial, word and deconstructed formats, adding in the missing representation for each set.	<ul style="list-style-type: none"> Can children partition a three-digit number? Can children solve missing number problems using their knowledge of place value? Can children identify numbers in different representations? 	<ul style="list-style-type: none"> Slides Worksheet 4A/4B/4C Place Value Cards (FSD? activity only) Blank Cards (FSD? activity only)
Lesson 5	To be able to count in multiples of 4, 8, 50 and 100.	Encourage children to look at numerical patterns and count in multiples of 4, 8, 50 and 100. Children will identify the rule in the pattern and ascertain which numbers in the pattern are missing.	<ul style="list-style-type: none"> Can children count in multiples of 4 and 8? Can children count in multiples of 50 and 100? Can children identify the rule of a number pattern? 	<ul style="list-style-type: none"> Slides Worksheet 5A/5B/5C Hundred Square Number Card Sets (FSD? activity only)

Investigating Number Facts : Maths : Year 3 : Autumn Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To know how to add numbers using partitioning	Children will recap on their understanding of partitioning, and then use this knowledge to solve addition number sentences involving two-digit numbers. Children will be encouraged to show the steps of their working out in their independent activities.	<ul style="list-style-type: none"> Do children know how to partition a number? Do children know how to recombine numbers? Can children use their knowledge of partitioning to solve addition number sentences? 	<ul style="list-style-type: none"> Slides Worksheet 1A/B/C Place Value Cards Blank Number Lines Sheet Spinner Sheet (FSD? activity only)
Lesson 2	To know how to subtract numbers using partitioning	Children will recap on how to use partitioning to help them solve addition number sentences, and then discuss how to use this method to solve subtraction number sentences. Children can work in pairs to create number sentences for each other to solve, or in the alternative activity, challenge themselves to complete the Subtraction Grid.	<ul style="list-style-type: none"> Do children know how to partition a number? Do children know how to recombine numbers? Can children use their knowledge of partitioning to solve subtraction number sentences? 	<ul style="list-style-type: none"> Slides Number Cards A/B/C Instructions Cards Big Number Sentence Sheet Blank Number Lines Sheet Subtraction Answer Sheet Subtraction Grid A/B/C (FSD? activity only)
Lesson 3	To know how to add more than two numbers together	Children will apply what they have learnt so far about the partitioning method to help them solve number sentences that require the addition of more than two two-digit numbers. They will practise this skill by working independently, or in pairs, to solve different challenges.	<ul style="list-style-type: none"> Can children recall the partitioning strategy for addition? Can children use the partitioning strategy to add more than two numbers together? Can children explain the partitioning strategy? 	<ul style="list-style-type: none"> Slides Worksheet 3A/B/C Number Cards Set A/B (FSD? activity only) Challenge Cards (FSD? activity only) Instructions Cards (FSD? activity only)
Lesson 4	To know how to solve puzzles using addition and subtraction	Children will use their addition and subtraction skills to solve number puzzles. They will learn how to reason about answers, and narrow down possible options in order to find the final answer.	<ul style="list-style-type: none"> Can children recall how to use partitioning for addition and subtraction? Do children understand how to narrow down possible answers when there are multiple options? Can children explain their reasoning and the methods they used to solve puzzles? 	<ul style="list-style-type: none"> Slides Worksheet 4A/B/C Footprints Puzzle Sheet A/B/C (FSD? activity only)
Lesson 5	To know how to investigate statements	Children will find out what a mathematical statement is. As a class, they will learn how to investigate a statement, and decide whether it is true or false. Children then have the opportunity to investigate statements independently or in pairs, depending on the activity chosen.	<ul style="list-style-type: none"> Do children understand what a mathematical statement is? Can children use their knowledge of addition and subtraction to investigate a mathematical statement? Can children explain their reasoning? 	<ul style="list-style-type: none"> Slides Worksheet 5A/B/C Addition Pyramid Sheet A/B (FSD? activity only) Instructions Card (FSD? activity only)

Mental Addition : Maths : Year 3 : Autumn Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to add numbers mentally.	Children will solve quick-fire addition questions involving adding single digits and multiples of ten to three-digit numbers. Children are challenged to increase their speed in solving such problems.	<ul style="list-style-type: none"> Can children add a one-digit number to hundreds mentally? Can children add a two-digit number to hundreds mentally? Can children add a three-digit number to hundreds mentally? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C Calculation Cards A/B/C (FSD? activity only) Calculators (FSD? activity only)
Lesson 2	To be able to solve worded addition problems mentally.	Children will identify the important information within a word addition problem and use their mental skills to solve problems that involve adding single digits, multiples of ten and multiples of one hundred to a variety of numbers. Children can match questions to the correct answer or use calculation statement to create their own word problems.	<ul style="list-style-type: none"> Can children understand what a worded problem with addition information is asking them? Can children solve addition word problems? Can children solve addition word problems mentally? 	<ul style="list-style-type: none"> Slides Question and Answer Cards A/B/C Calculation Cards A/B (FSD? activity only)
Lesson 3	To be able to use the inverse to check an addition problem.	Children will learn how to use the inverse to check mental addition calculations. Children will use a number line to check the accuracy of their work. The focus is on addition although the reciprocal link between checking subtraction calculation using addition is also expressed.	<ul style="list-style-type: none"> Can children solve addition problems? Can children solve addition problems mentally? Can children use the inverse operation to check answers? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C Word Question Cards A/B (FSD? activity only)
Lesson 4	To be able to add amounts of money mentally and give change using pounds and pence.	Children will learn to adjust the prices of various objects in single digits and multiples of ten in both pence and pounds and pence. They will also solve problems that involve finding change from certain amounts.	<ul style="list-style-type: none"> Can children add amounts of money using pounds and pence? Can children add numbers mentally? Can children use subtraction to work out how much change should be given? 	<ul style="list-style-type: none"> Slides Worksheet 4A/4B/4C Objects and price tags (FSD? activity only) Pretend money (FSD? activity only)
Lesson 5	To use known addition and subtraction facts to solve missing number problems.	After quick-fire question to mentally add single digits and multiples of ten to three-digit numbers, children will use known number facts to solve missing number problems within addition calculations, reinforcing understanding of the inverse relationship between addition and subtraction.	<ul style="list-style-type: none"> Can children recall addition facts mentally? Can children solve missing number problems? Can children check an answer using the inverse? 	<ul style="list-style-type: none"> Slides Worksheet 5A/5B/5C/5D Cover Cards (FSD? activity only) Sticky tack (FSD? activity only)

Mental Subtraction : Maths : Year 3 : Autumn Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to subtract numbers mentally	Children will be introduced to mental methods of subtraction. They will subtract multiples of 1, 10 and 100 from a three-digit number. Children will generate their own subtraction number sentences to solve, or in the alternate activity, will play a subtraction game based on what they have learnt.	<ul style="list-style-type: none"> Can children mentally subtract a one-digit number from a three-digit number? Can children mentally subtract a two-digit number from a three-digit number? Can children mentally subtract a three-digit number from a three-digit number? 	<ul style="list-style-type: none"> Slides Worksheets 1A/1B/1C Subtraction Space Race Game Sheet (FSD? activity only) Question Cards A/B/C (FSD? activity only) Counters (FSD? activity only)
Lesson 2	To know and use the vocabulary of subtraction	Children begin by testing their knowledge and understanding of subtraction with some quick-fire questions. They then find out about the different vocabulary associated with subtraction, and answer a variety of word problems. Children will apply this understanding in their independent work, where they can play a subtraction-based game, or work out number facts about an alien.	<ul style="list-style-type: none"> Do children understand the vocabulary of subtraction? Can children use the vocabulary of subtraction orally? Can children solve a range of subtraction number sentences mentally? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C Question Cards A/B/C Amazing Alien Sheet A/B/C (FSD? activity only) Amazing Alien Challenge Sheet (FSD? activity only)
Lesson 3	To know how to use the inverse operation to check subtraction number sentences	Children will find out what 'inverse' means, and what the inverse of subtraction is. They will learn how to use this knowledge to check their calculations. Children will check, and where necessary, correct answers to subtraction number sentences.	<ul style="list-style-type: none"> Can children solve subtraction number sentences mentally? Do children understand the term 'inverse'? Can children use the inverse operation to check answers to subtraction questions? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C Coloured pencils Alien Inverse Board Game A and B (FSD? activity only) Alien Points Sheet (FSD? activity only) Dice (FSD? activity only) Counters (FSD? activity only) Wipe Boards (FSD? activity only)
Lesson 4	To use known addition and subtraction facts to solve missing number problems	Children will be reminded of their understanding of the inverse operation and how it can be used to check answers. They will then learn how to use this knowledge to find missing numbers in subtraction number sentences. In the independent activity, children will chose the correct missing numbers from a given set of answers. Alternatively, they can use their knowledge to solve subtraction puzzles.	<ul style="list-style-type: none"> Can children check an answer using the inverse? Can children recall addition and subtraction facts mentally? Can children solve missing number problems? 	<ul style="list-style-type: none"> Slides Worksheets 4A/4B/4C Alien Squares Sheet A/B (FSD? activity only) Alien Squares Challenge Sheet (FSD? activity only)
Lesson 5	To know how to use addition and subtraction facts to solve problems involving money	Children will be reminded of the written notation for amounts of money. They will learn how to reduce prices using their subtraction knowledge, and how to total amounts and then work out change from a specified amount. Children will then solve two-step and multi-step word problems involving money.	<ul style="list-style-type: none"> Can children subtract numbers mentally? Can children add amounts of money using pounds and pence? Can children use subtraction to work out how much change should be given? 	<ul style="list-style-type: none"> Slides Worksheets 5A/5B/5C Alien Jumble Sale Cards A/B/C (FSD? activity only)

2D Shape : Maths : Year 3 : Autumn Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to recognise 2D shapes.	Children will recognise and describe a variety of regular 2D shapes. They will begin to describe their properties, including number of sides and angles, and identify a particular shape from its description.	<ul style="list-style-type: none"> • Can children identify a variety of 2D shapes? • Can children describe the properties of 2D shapes? • Can children identify a shape from its description? 	<ul style="list-style-type: none"> • Slides • Worksheet 1A/1B/1C
Lesson 2	To be able to identify and create regular and irregular polygons.	Children will understand the difference between regular and irregular shapes, and understand the term 'polygon'. They have opportunities to identify a variety of different regular and irregular shapes, before drawing irregular polygons for themselves.	<ul style="list-style-type: none"> • Can children name some simple 2D shapes? • Do children know basic shape properties? • Can children identify the difference between a regular and an irregular shape? 	<ul style="list-style-type: none"> • Slides • Worksheet 2A/2B/2C
Lesson 3	To be able to measure the perimeter of simple 2D shapes.	Children will understand the term 'perimeter' and learn how to calculate the perimeter of rectilinear shapes, first by counting squares and then by measuring the length and width, and using addition to find the perimeter.	<ul style="list-style-type: none"> • Do children know what a perimeter is? • Can children find the perimeter of simple 2D shapes? • Can children measure the perimeter of objects accurately? 	<ul style="list-style-type: none"> • Slides • Worksheet 3A/3B/3C • Digital cameras - optional (FSD? activity only) • Rulers/metre rulers (plenary)
Lesson 4	To be able to describe and sort shapes according to their properties.	Children will describe a variety of regular and irregular 2D shapes and sort them according to various criteria, including regular and irregular, number and length of sides, lines of symmetry and angles.	<ul style="list-style-type: none"> • Can children describe basic shape properties? • Can children sort shapes according to given criteria? • Can children choose their own criteria for sorting shapes? 	<ul style="list-style-type: none"> • Slides • Worksheet 4A/4B/4C • Shape Cards • Blank Venn Diagram • Blank Carroll Diagram • 2D shapes - optional (FSD? activity only)
Lesson 5	To be able to use the shapes within a tangram to create other shapes.	Children will learn what a tangram is before using the pieces of a tangram to create other shapes. Various challenges will be given to use a certain number of tangram pieces to create a given shape, or using an outline of a tangram picture (such as a person or a boat) which the children have to try and recreate using all the tangram pieces.	<ul style="list-style-type: none"> • Can children construct shapes according to instructions? • Can children construct shapes? • Can children investigate different ways to create shapes using tangrams? 	<ul style="list-style-type: none"> • Slides • Tangram Sheet (copied onto card if possible) • Worksheet 5A/5B/5C • Tangram Shape Cards (FSD? activity only) • Solution Cards (FSD? activity only)

What is Length? : Maths : Year 3 : Autumn Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To know the relationship between kilometres, metres and centimetres.	Children will explore the relationship between centimetres, metres and kilometres, and start to think about how long these units of measurement are. They will identify different objects that are best measured in these different units and start to estimate the length of a variety of objects and distances.	<ul style="list-style-type: none"> Do children know that centimetres, metres and kilometres are all units of measurement to measure length? Do children know the relationship between centimetres, metres and kilometres? Can children estimate and measure lengths? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C/1D Metre stick Measurement Cards (FSD? activity only)
Lesson 2	To be able to estimate, measure and record lengths.	Children will find out how to measure items accurately using a ruler before estimating distances between British towns and cities using other distances as a basis for their estimates. They can also estimate and measure distances around the school.	<ul style="list-style-type: none"> Can children select an appropriate unit of measurement? Can children make reasonable estimates? Can children measure accurately? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C Map of Britain sheet Trundle wheels Question Cards (FSD? activity only)
Lesson 3	To be able to estimate, measure and record lengths.	Children will recap which units of measurement (centimetres, metres or kilometres) would be best for measuring different lengths before looking at millimetres and how to use rulers to accurately measure shorter distances. Children will learn to express measurements in different ways, including as decimals.	<ul style="list-style-type: none"> Can children select appropriate units of measurement? Can children make reasonable estimates? Can children measure accurately? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C Rulers, metre sticks, tape measures, trundle wheels
Lesson 4	To be able to compare and order lengths using the < and > symbols.	Children will order a variety of lengths from shortest to longest, including measurements in different units. They will learn to use the < and > symbols to compare measurements.	<ul style="list-style-type: none"> Can children order centimetre lengths? Can children order mixed lengths? Can children use the < and > symbols? 	<ul style="list-style-type: none"> Slides Worksheet 4A/4B/4C Length Cards A/B/C (FSD? activity only) Symbol Cards (FSD? activity only)
Lesson 5	To be able to solve problems involving length.	Children will solve a variety of problems relating to length, including addition and subtraction problems, and reasoning problems. Higher-ability children will solve problems that include measurements expressed in decimals.	<ul style="list-style-type: none"> Can children solve problems involving length? Can children check their answers? Can children convert units of measurement, using decimals? 	<ul style="list-style-type: none"> Slides Worksheet 5A/5B/5C Question Sheets A/B/C (FSD? activity only)

Time : Maths : Year 3 : Autumn Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To explore measurements of time and relate them to one another.	Children will recap measurements of time, including year, month, week, day, hour, minute and second, and explore how these units of time are related to each other. They will explore the months of the year and days of the week, as well as finding out how many days there are in each month of the year.	<ul style="list-style-type: none"> Can children name a variety of measures of time? Do children know how many days there are in a year, including leap years? Do children know how many days there are in each month? 	<ul style="list-style-type: none"> Slides Worksheet 1A Number Cards Month Cards Month Mnemonics Card Calendar Template True or False Cards (FSD? activity only) Time Cheat Sheet (FSD? activity only)
Lesson 2	To recognise and compare measures of time.	Children will explore the duration of events in terms of seconds, minutes and hours. They will estimate how long a variety of everyday activities take (such as writing their name or eating a sandwich), and decide whether an activity would be best measured in seconds, minutes or hours. They can also order events from shortest to longest in length.	<ul style="list-style-type: none"> Can children order measures of time from shortest to longest? Can children estimate how long various activities would take? Can children compare the duration of events? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C Activity Cards Action Card 2A/2B Duration Cards Stopwatches
Lesson 3	To be able to tell and write the time on an analogue clock.	Children will recap how to tell the time to the nearest quarter of an hour on an analogue clock. They will be reminded about the function of each of the hands of a clock and how they are used to tell the time. There are opportunities for children to both read the time and draw hands on a clock to show a given time.	<ul style="list-style-type: none"> Can children read the time to o'clock, half past, quarter past and quarter to? Can children read the time to the nearest five minutes? Can children write a given time correctly on a clock face? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C Domino Cards 3A/3B (FSD? activity only) Blank Domino Cards (FSD? activity only) Clock Cards - plenary
Lesson 4	To be able to tell the time on clocks with Roman numerals.	Children will learn how the Roman number system works and recognise numbers one to twelve. They will tell the time to the nearest quarter of an hour on an analogue clock with Roman numerals, and extend to reading the time to the nearest five minutes. Children will focus on recording a given time accurately by drawing hands on a clock face.	<ul style="list-style-type: none"> Do children know what Roman numerals are and how they are used? Can children read the time on an analogue clock with Roman numerals to the nearest quarter of an hour? Can children read the time on an analogue clock with Roman numerals to the nearest five minutes? 	<ul style="list-style-type: none"> Slide Worksheet 4A/4B/4C Instruction Sheet (FSD? activity only) Card, split pins, glue, scissors (FSD? activity only) Roman Numeral Cards (FSD? activity only) Show Me Cards (FSD? activity only)
Lesson 5	To recap what we have learnt about telling the time.	Children will consolidate what they have learnt about telling the time and how different measurements of time relate to one another. They will have the chance to address any misconceptions and explain their understanding to others.	<ul style="list-style-type: none"> Can children describe how to tell the time to the nearest quarter of an hour? Can children describe how to tell the time to the nearest five minutes? Can children tell the time accurately? 	<ul style="list-style-type: none"> Slides Worksheet 5A Booklet Template 5A/5B Time Question Cards (FSD? activity only) Clocks (FSD? activity only)

Multiplication Facts: Maths : Year 3 : Autumn Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To know and use the three times table facts.	Children will practise counting up in threes. They will identify multiples of three on a 100 square, and discuss patterns. Children will solve multiplication number sentences using the three times table facts, and understand that multiplication can be done in any order.	<ul style="list-style-type: none"> • Can children count up in steps of three? • Can children identify multiples of three on a 100 square? • Can children recall facts for the three times table? 	<ul style="list-style-type: none"> • Slides • Worksheets 1A/1B/1C • Scissors • The Big Three Game Sheet (FSD? activity only) • Two dice & counters (FSD? activity only)
Lesson 2	To know and use the four times table facts.	Children will practise counting up in fours. They will identify multiples of four on a 100 square, and spot those that are missing. Children will understand that all multiples of four are even, and that this fact can be used to check answers. They will use their four times table fact knowledge to play games.	<ul style="list-style-type: none"> • Can children count up in steps of four? • Can children identify multiples of four on a 100 square and notice patterns? • Can children recall facts for the four times table? 	<ul style="list-style-type: none"> • Slides • Worksheets 2A/2B/2C • Coloured pencils • Matching Pairs Game Sheet (FSD? activity) • Two dice
Lesson 3	To know and use multiplication facts from the three and four times tables.	Children will answer quick - fire questions using their three and four times table knowledge. They will understand the term 'multiple', and will identify multiples of three and four. Children will use their times table fact knowledge to solve puzzles or play games.	<ul style="list-style-type: none"> • Do children understand the term 'multiple'? • Can children recognise multiples of three and four? • Can children recall and use facts for the three and four times tables? 	<ul style="list-style-type: none"> • Slides • Worksheets 3A/3B/3C • Spelling Help Sheet • Spinner Game Sheet (FSD? activity only) • Spinner Game Instructions Card (FSD? activity only) • Ninja Points Sheet (FSD? activity only) • Paperclips
Lesson 4	To use times table facts to solve missing number problems.	Children will learn how to find a missing number in a problem, using their knowledge of the three and four times tables. They will understand that division is the inverse of multiplication, and use this to help them solve missing number problems.	<ul style="list-style-type: none"> • Can children identify multiples of three and four? • Can children suggest multiplication number sentences for given multiples? • Can children use their knowledge of the three and four times tables to solve missing number problems? 	<ul style="list-style-type: none"> • Slides • Worksheets 4A/4B/4C • Dice, markers and coloured counters • Ninja Game Sheet Three Times Table (FSD? activity only) • Ninja Game Sheet Four Times Table (FSD? activity only) • Mini Ninja cards (FSD? activity only)
Lesson 5	To know how to use multiplication facts to solve scaling problems.	Children will answer quick - fire questions using their three and four times table knowledge. They will learn how to 'scale up' amounts and apply this learning to real - life contexts.	<ul style="list-style-type: none"> • Can children recall and use facts for the three and four times tables? • Can children discuss some instances of scaling up in real - life situations? • Can children use their knowledge and understanding of the three and four times tables to solve problems involving scaling? 	<ul style="list-style-type: none"> • Slides • Worksheets 5A/5B/5C • Fruit and Veg Game Sheet A (FSD? activity only) • Fruit and Veg Game Sheet B (FSD? activity only)

Multiplying and Dividing: Maths : Year 3 : Autumn Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To recall and use the three and four times table facts	In this first lesson, children apply their knowledge of the three and four times tables and their corresponding division facts to solve simple word problems around the context of Christmas. In their independent activities, children will solve jigsaw puzzles by matching word problems to number sentences and answers. Alternatively, they will complete missing number sentences or answers to questions on the Berry Christmas! Sheet.	<ul style="list-style-type: none"> Can children identify and explain which operation is needed to solve a word problem? Can children apply their knowledge of multiplication facts when solving word problems? Can children apply their knowledge of division facts when solving word problems? 	<ul style="list-style-type: none"> Slides Jolly Jigsaws Sheet 1A/1B/1C Blank Jolly Jigsaws Sheet Berry Christmas! Sheet A/B/C (FSD? activity only)
Lesson 2	To know how to multiply a two-digit number by a one-digit number using partitioning	Children will learn how to multiply larger numbers by three and four using the partitioning method. As a class they will solve word problems where they need to partition, multiply and then recombine to arrive at the answer. Children will practise this method in their independent activities when solving number sentences or word problems based around a Christmas theme.	<ul style="list-style-type: none"> Can children multiply a two-digit number by three? Can children multiply a two-digit number by four? Can children explain the steps they have taken to solve a number sentence? 	<ul style="list-style-type: none"> Slides Christmas Crackers! Sheet 1A/1B/1C Christmas Decorations Price Sheet A/B(FSD? activity only) Christmas Decorations Problems Sheet A/B (FSD? activity only)
Lesson 3	To know how to divide a two-digit number by a one-digit number using repeated subtraction	Children will learn how to divide larger numbers by three and four using a number line and the repeated subtraction method. They will learn how to identify and correct common mistakes when using this method. In their independent activity, children solve division number sentences and then link the answers to letters in order to spell out the punchline to a joke. Alternatively, they solve division word problems involving common multiples of three and four.	<ul style="list-style-type: none"> Can children divide a two-digit number by three? Can children divide a two-digit number by four? Can children explain the steps they have taken to solve a number sentence? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C It's a Joke! Cards A/B Team Elf! Sheet (FSD? activity only) Blank Number Lines Sheet (FSD? activity only)
Lesson 4	To know how to solve missing number problems	In this lesson, children will practise using the inverse operation in order to solve missing number problems. They will use their knowledge of the three and four times tables and the corresponding division facts. Children will apply this knowledge in their independent activities by matching up number sentences with missing numbers in the It's a Wrap! game. Alternatively, they will be challenged to fill in missing sentences in word problems, in order to result in the answer given.	<ul style="list-style-type: none"> Do children understand what an inverse operation is? Can children use the inverse operation to solve missing number problems involving multiplication and division? Can children explain their methods and reasoning? 	<ul style="list-style-type: none"> Slides It's a Wrap! Cards Set A, B, C, D Missing Sentences Challenge Cards (FSD? activity only)
Lesson 5	To develop problem-solving skills	Children will apply their knowledge of the three and four times tables by solving problems using the trial and improvement method. They will be encouraged to explain their reasoning and justify their ideas. Children will use this method in their independent activities to complete a variety of Christmas-themed challenges.	<ul style="list-style-type: none"> Do children understand the trial and improvement method? Can children use the trial and improvement method to solve problems? Can children explain their reasoning? 	<ul style="list-style-type: none"> Slides Sweets Galore! Challenge Cards A/B Sweets Galore! Recording Sheet Piles of Presents! Cards (FSD? activity only) Piles of Presents! Tree Sheet (FSD? activity only) Piles of Presents! Worksheet (FSD? activity only)

Finding Fractions: Maths : Year 3 : Autumn Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to identify, record and count in tenths	In this first lesson, children will recap on what a fraction is, before focusing specifically on tenths. They will learn how to write and represent them in pictorial form, and practise counting on and back in tenths. In their independent activities, children will identify and record tenths in a variety of different ways. In the alternate activity, children will practise their recognition of tenths in different forms by playing tenths dominoes.	<ul style="list-style-type: none"> • Do children understand that a fraction is part of a whole? • Can children count on and back in tenths? • Can children identify and shade in or circle amounts of tenths in a shape or set of objects? 	<ul style="list-style-type: none"> • Slides • Worksheet 1A/1B/1C • Dice • Tenths Dominoes Cards (FSD? activity only) • Instructions Cards (FSD? activity only)
Lesson 2	To know how to find fractions of quantities	Children will be reminded of what each number in a fraction represents. They will recap on how to identify and write a fraction of a set or shape. Children will then learn how to find a fraction of a set or shape where the total amount of objects or parts is a multiple of the denominator. In their independent activities, children will apply this knowledge and understanding to find fractions of various quantities.	<ul style="list-style-type: none"> • Can children explain what the numerator and denominator represent in a fraction? • Can children identify what fraction has been circled or shaded in a set of objects or shape? • Can children find a unit fraction of a set of objects or shape? 	<ul style="list-style-type: none"> • Slides • Worksheet 2A/2B/2C • Colour Me In! Challenge Cards (FSD? activity only)
Lesson 3	To recognise simple equivalent fractions	In this lesson, children will learn about equivalent fractions. They will use fraction walls to understand and recognise different equivalent fractions. In their independent activities, children will use fraction walls to identify and match up equivalent fractions. Alternatively, children can play a game of Snap! which will help them to develop their recognition of equivalent fractions in both numerical and pictorial form.	<ul style="list-style-type: none"> • Can children explain what the word 'equivalent' means? • Can children identify simple equivalent fractions? • Can children explain why two particular fractions are equivalent, or not equivalent? 	<ul style="list-style-type: none"> • Slides • Fraction Walls Sheet • Worksheet 3A/3B/3C • Snap! Cards (FSD? activity only) • Snap! Instructions (FSD? activity only)
Lesson 4	To know how to compare and order fractions	Children will learn how to compare two fractions using the fraction wall, by stating whether one is smaller than or bigger than the other, or whether they are equal in value. They will use this knowledge to then order different sets of fractions. Children will practise this skill in their independent work. Alternatively, as a whole class activity, children will each be given a unique fraction card which they compare with other children's cards.	<ul style="list-style-type: none"> • Can children compare two fractions? • Can children order a given set of fractions? • Can children explain their reasoning? 	<ul style="list-style-type: none"> • Slides • Worksheet 4A/4B/4C • Fraction Walls Sheet • Fraction Cards (FSD? activity only) • Pair and Compare Sheet (FSD? activity only)
Lesson 5	To solve problems involving fractions	In this final lesson, children will identify and solve a variety of different problems using their knowledge and understanding of equivalent fractions, comparing and ordering fractions, and finding fractions of amounts. Children will also learn how to find non-unit fractions of amounts.	<ul style="list-style-type: none"> • Can children recognise what the question is asking them to do? • Can children explain how they arrived at their answers? • Can children apply their knowledge and understanding in order to solve a range of fraction problems independently? 	<ul style="list-style-type: none"> • Slides • Sorting Sheet • Solving Problems Worksheet • Problem Cards A/B/C • Fraction Walls Sheet • Fractions in Action Game Board A/B (FSD? activity only) • Fractions in Action Game Cards A/B (FSD? activity only) • Blu-Tack, dice, counters

Using Place Value : Maths : Year 3 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To recognise the place value of each digit in a three-digit number.	Children will recap what each digit is worth in a three-digit number, and be able to read and write numbers up to three-digits in numerals and words. They will practically add multiples of ten to a given number to reinforce their understanding of place value addition.	<ul style="list-style-type: none"> • Can children write a three-digit number? • Can children explain the value of each digit in a three-digit number? • Can children make a three-digit number using objects? 	<ul style="list-style-type: none"> • Slides • Worksheet 1A/1B/1C • Number Cards A • Place Value Cards (FSD? activity only) • Number Cards B/C (FSD? activity only) • Digital Camera • H, T, O blocks
Lesson 2	To solve addition problems involving three-digit numbers.	Your class will partition three-digit numbers practically as well as through the use of place value cards. They will add base ten numbers and two-digit numbers to a given three-digit number.	<ul style="list-style-type: none"> • Can children say the value of each digit in a three-digit number? • Can children use partitioning to help them solve addition problems? • Do children use objects, draw pictures or work in the abstract to solve the problems? 	<ul style="list-style-type: none"> • Slides • Worksheet 2A/2B/2C • Place Value Cards • Number Cards (FSD? activity only) • Addition Cards O/T/H (FSD? activity only) • Digital Camera • H, T, O blocks
Lesson 3	To solve addition and subtraction problems involving three-digit numbers.	Children will begin to move away from solving problems practically with objects as they work towards solving problems in the abstract using partitioning. They will add two-digit and three-digit numbers to a given three-digit number.	<ul style="list-style-type: none"> • Can children partition a three-digit number? • Can children use partitioning to help them solve addition and subtraction problems? • Do children use objects, draw pictures or work in the abstract to solve the problems? 	<ul style="list-style-type: none"> • Slides • Worksheet 3A/3B/3C • Place Value Cards • Number Sentence Cards (FSD? activity only) • Digital Camera • H, T, O blocks
Lesson 4	To solve addition and subtraction word problems involving three-digit numbers.	Children will partition numbers in order to add or subtract them using a number line. They will work out what the given word problems are asking them to do and then write the question as a number sentence before solving it. There is also the chance to create some word problems of their own.	<ul style="list-style-type: none"> • Can children use partitioning to help them solve addition word problems? • Can children use partitioning to help them solve subtraction word problems? • Do children use objects, draw pictures or work in the abstract to solve the problems? 	<ul style="list-style-type: none"> • Slides • Worksheet 4A/4B/4C • Place Value Cards • Number Cards O/T/H (FSD? activity only) • Digital Camera
Lesson 5	To solve addition and subtraction word problems involving three-digit numbers.	Children will consolidate their knowledge of place value by solving three-part word problems using number lines. The problems will involve addition and subtraction and bridging ten. Higher-ability children are challenged to bridge a hundred.	<ul style="list-style-type: none"> • Can children use partitioning to help them solve word problems? • Can children work out what a word problem is asking them to do? • Do children use objects, draw pictures or work in the abstract to solve the problems? 	<ul style="list-style-type: none"> • Slides • Worksheet 5A/5B/5C • Place Value Cards • Number Cards T/H (FSD? activity only) • Operations Cards (FSD? activity only) • Challenge Cards (FSD? activity only) • H, T, O blocks

Doubling and Halving : Maths : Year 3 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to double two-digit numbers with totals of more than 100.	Children will learn how to use partitioning to help them double two-digit numbers with totals up to and over a hundred. Children will practise doubling numbers with increased fluency.	<ul style="list-style-type: none"> • Can the children double two-digit numbers, answers below 100? • Can they double two-digit numbers using a written method? • Can they double two-digit numbers mentally? 	<ul style="list-style-type: none"> • Slides • Worksheet 1A/1B/1C/1D
Lesson 2	To be able to double two-digit numbers that total more than 100.	Children will practise doubling two-digit numbers. Children are challenged to double numbers as many times as they can before matching a number to its double. There is also the opportunity for an investigation into the effects of doubling a two-digit number.	<ul style="list-style-type: none"> • Can the children double two-digit numbers, answers below 100? • Can they double two-digit numbers using a written method? • Can they double two-digit numbers mentally? 	<ul style="list-style-type: none"> • Slides • Worksheet 2A/2B/2C • Challenge Card (FSD? activity only)
Lesson 3	To understand the relationship between doubling and halving and to know doubles and halves of numbers from 1 to 20.	After some quick recall of doubling facts, children will explore the relationship between doubling and halving. They will start by halving even numbers before finding out how to halve odd numbers.	<ul style="list-style-type: none"> • Can the children double by heart all numbers to 10? • Can they double by heart all numbers to 20? • Can they double and halve all numbers to 20? 	<ul style="list-style-type: none"> • Slides • Number Cards A/B
Lesson 4	To be able to rapidly recall doubles and halves.	The focus of this lesson is rapid recall of doubling and halving facts. Plenty of opportunities are provided in the form of games and activities to allow to children to recall doubling and halving facts for two- and three-digit numbers.	<ul style="list-style-type: none"> • Can children recall doubles of whole numbers? • Can children halve even numbers? • Can children halve odd numbers? 	<ul style="list-style-type: none"> • Slides • Spinner 4A/4B/4C • Game Card 4A/4B/4C • Paperclips and pencils • Calculation Grids 4A/4B/4C (FSD? activity only) • Stopwatches - optional (FSD? activity only)
Lesson 5	To understand the relationship between doubling and halving and to double and halve numbers that total more than 100.	Children are challenged to work out what the input and output numbers on a function would be when the operation is set to 'double' of 'half'.	<ul style="list-style-type: none"> • Can the children double and halve whole numbers (below 200)? • Can the children double two-digit numbers (crossing the 100 boundary)? • Can the children double any two-digit numbers mentally? 	<ul style="list-style-type: none"> • Slides • Worksheet 5A/5B/5C/5D/5E

Partition Addition : Maths : Year 3 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to use partitioning to add two two-digit numbers.	Children will recap how to partition a two-digit number into tens and one, and explore how partitioning can be used to help solve addition problems. Children will learn to set partitioned numbers up in columns as a precursor to column addition.	<ul style="list-style-type: none"> Can the children partition two-digit numbers? Can they add columns of numbers? Can they add two two-digit numbers using a vertical partitioning method? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C Up the Wall sheet (FSD? activity only)
Lesson 2	To be able to check calculations using the inverse.	Children will learn how to use subtraction (using a number line to support them) to check an addition calculation. Children will solve addition problems, using the column partitioning method, then check each calculation using the inverse. They will be taught how to adjust any calculations found to be incorrect.	<ul style="list-style-type: none"> Can children partition a number? Can children solve an addition calculation using partitioning? Can children check an addition calculation using the inverse? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C True or False Cards 2A/2B (FSD? activity only)
Lesson 3	To be able to use partitioning to add numbers up to three digits.	Children will explore how to partition three-digit numbers into hundreds, tens and ones, before extending their understanding of the vertical partitioning method to solve addition calculations that involve two- and three-digit numbers. There are opportunities for activities that include reasoning and investigation.	<ul style="list-style-type: none"> Can children partition a three-digit number? Can children add numbers up to three digits using partitioning? Can children solve addition puzzles using an appropriate method? 	<ul style="list-style-type: none"> Slides Challenge Cards 3A/3B/3C Worksheet 3A/3B (FSD? activity only)
Lesson 4	To be able to use the expanded method to solve addition problems.	Children will learn how to use the expanded addition method to solve two-digit add three-digit, and three-digit add three-digit calculations. Children will use their knowledge of partitioning to solve such problems, setting out the problems in a more formal a structured way.	<ul style="list-style-type: none"> Can children partition three-digit numbers? Can children use the expanded method to solve addition calculations? Can children solve missing number problems related to the expanded method? 	<ul style="list-style-type: none"> Slides Worksheet 4A/4B/4C Challenge Cards 4A/4B (FSD? activity only)
Lesson 5	To be able to use appropriate methods to solve addition problems.	Children will use what they have learnt during the week to solve addition problems, including word problems, choosing an appropriate method.	<ul style="list-style-type: none"> Can children use the decomposition and expanded methods to solve addition problems? Can children solve addition problems using an appropriate method? Can children check their answers using the inverse? 	<ul style="list-style-type: none"> Slides Worksheet 5A/5B/5C Target Number Sheets (FSD? activity only)

Solving Subtraction: Maths : Year 3 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to solve three-digit subtraction problems using a number line.	Children begin with some quick-fire subtraction questions which challenge them to subtract ones, tens and hundreds from three-digit numbers. They then go on to use a number line to subtract two- or three-digit numbers from a three-digit number.	<ul style="list-style-type: none"> • Can children subtract numbers mentally? • Can children use a number line to subtract a two-digit number from a three-digit number? • Can children use a number line to subtract a three-digit number from a three-digit number? 	<ul style="list-style-type: none"> • Slides • Worksheet 1A/1B/1C • Tarsia Puzzle 1A/1B (FSD? activity only)
Lesson 2	To be able to use decomposition to solve subtraction problems that involve exchanging.	Children answer some quick-fire mental subtraction questions before looking at how the decomposition method can be used to solve HTO-TO and HTO-HTO problems. They will start to look at exchanging, using diagrams and apparatus to help them visualise the process.	<ul style="list-style-type: none"> • Can children solve simple subtraction problems mentally? • Can children use the decomposition method to solve subtraction problems that don't require exchanging? • Can children use the decomposition method to solve subtraction problems that require exchanging? 	<ul style="list-style-type: none"> • Slides • Calculation Cards 2A/2B/2C • Worksheet 2A/2B/2C • Challenge Card 2A/2B (FSD? activity only) • Dienes blocks or Place Value Cards (FSD? activity only)
Lesson 3	To be able to use column subtraction without exchanging.	Children will be introduced to the formal column subtraction in cases where no exchanging is required. They will learn how to set out such calculations correctly and use solve problems with up to four digits.	<ul style="list-style-type: none"> • Can children note similarities and differences between the decomposition and column subtraction methods? • Can children subtract one number from another using column subtraction without exchanging? • Can children subtract more than one number at once using column subtraction without exchanging? 	<ul style="list-style-type: none"> • Slides • Calculation Cards 3A/3B/3C • Game Board 3A/3B/3C • Challenge Cards 3A/3B (FSD? activity only) • Number Sheet 3A/3B (FSD? activity only) • Worksheet 3A/3B (FSD? activity only)
Lesson 4	To be able to use column subtraction involving exchanging.	Children will recap the formal column method of subtraction, starting with some examples where no exchanging is required and moving on to examples where exchanging is needed both from the tens and hundreds columns. Children will solve increasingly more challenging calculations using this method, using diagrams and apparatus to help them if necessary.	<ul style="list-style-type: none"> • Can children solve TO-TO calculations using the column subtraction method with exchanging? • Can children solve HTO-TO calculations using the column subtraction method with exchanging? • Can children solve HTO-HTO calculations using the column subtraction method with exchanging? 	<ul style="list-style-type: none"> • Slides • Worksheet 4A/4B/4C • Place Value Cards • Challenge Cards 4A/4B/4C (FSD? activity only)
Lesson 5	To be able to use subtraction to solve problems.	Children will consider the various subtraction methods they have used throughout the week and discuss which they find easiest and which they think are most efficient. They will then go on to use their subtraction skills to solve a variety of word problems.	<ul style="list-style-type: none"> • Can children identify a variety of strategies and methods for solving subtraction problems? • Can children use mental methods to subtract ones, tens and hundreds from numbers with three digits? • Can children use written methods accurately to solve subtraction calculations? 	<ul style="list-style-type: none"> • Slides • Worksheet 5A/5B/5C • Challenge Cards 5A/5B (FSD? activity only)

Space and 3D Shape : Maths : Year 3 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to read and record the language of position, direction and movement.	Children will learn some of the language associated with position, direction and movement, such as clockwise, anti-clockwise, grid, row, column, horizontal and vertical, before learning how to describe the position of objects within a grid using coordinates.	<ul style="list-style-type: none"> Can the children use appropriate language to describe position? Can they use appropriate language to describe position and movement? Can they use co-ordinates? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C/1D/1E/1F Blank Battleship Grids 1A/1B Roamers - optional (FSD? activity only) Masking tape or skipping ropes (FSD? activity only)
Lesson 2	To be able to use the four compass directions to describe movement about a grid.	Children will learn about the four directions on a compass and extend their understanding of how to describe movement around a grid using the directions North, South, East and West.	<ul style="list-style-type: none"> Can they use the language of position? Can they use the language of position, direction and movement? Can they use the four compass points to describe position and movement? 	<ul style="list-style-type: none"> Slides Compass Worksheet 2A/2B/2C/2D Island Map sheet
Lesson 3	To be able to identify and describe 3D shapes and their properties.	Children will think about how 3D shapes are different to 2D shapes. They will then explore the difference between a face, edge and vertex before being challenged to describe the features of some familiar 3D shapes.	<ul style="list-style-type: none"> Can the children name basic 3D shapes? Can they describe 3D shapes by their properties? Can they identify 3D shapes around them? 	<ul style="list-style-type: none"> Slides 3D shapes Worksheet 3A/3B/3C Picture Cards Riddle Cards Variety of 3D containers/objects (FSD? activity only) Sticky notes (FSD? activity only)
Lesson 4	To be able to identify and describe 3D shapes according to their properties.	Children will describe 3D shapes in more detail, recognising how many faces, edges and vertices various 3D shapes have. Children will also explore examples of objects that are the same shape as the shapes they have been describing, such as balls (spheres), sugar lumps (cubes), candles (cylinders) cases (cuboids) and many other examples.	<ul style="list-style-type: none"> Can the children name basic 3D shapes? Can they describe 3D shapes by their properties? Can they identify 3D shapes around them? 	<ul style="list-style-type: none"> Slides 3D shapes Worksheet 4A/4B/4C Shape Description sheets (FSD? activity only) Picture Sheet (FSD? activity only)
Lesson 5	To be able to make 3D shapes.	Children will learn how to make 3D shapes, primarily through constructing nets. They will learn how to identify the shape the net will create by looking at its features, and how to put 3D nets together. Alternatively, they can use their knowledge of 3D shapes to construct shapes from other materials.	<ul style="list-style-type: none"> Can children explain what a 3D net is? Can children identify a 3D shape from its net? Can children make 3D shapes? 	<ul style="list-style-type: none"> Slides Cube, Cuboid, Triangular Prism, Pyramid, Pentagonal Prism and Octahedron Net sheets Dried spaghetti (FSD? activity only) Plasticine (FSD? activity only) Challenge Cards (FSD? activity only) 3D Shapes Opaque bag

What is Weight? : Maths : Year 3 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To know the relationship between kilograms and grams and begin to estimate weights.	Children will explore the relationship between grams and kilograms and start to think about objects that would be most suited to being weighed in kilograms and those best weighed in grams. They will start to make estimates about weights based on their prior knowledge.	<ul style="list-style-type: none"> Do the children know that 1000 grams equals 1 kilogram? Can they use the correct unit in estimation? Can they estimate reasonably accurately? 	<ul style="list-style-type: none"> Slides 1 kg weights Worksheet 1A/1B/1C Answer Sheet Variety of empty containers (FSD? activity only) Question Cards (FSD? activity only) Picture Cards (FSD? activity only)
Lesson 2	To be able to estimate the weight of an object and check using scales.	Children will be able add weights to one side of a balance scale to make the scales balance. They will then learn how to use measuring scales accurately, and estimate the weight of a variety of classroom objects before checking their estimates by weighing each one.	<ul style="list-style-type: none"> Could the children estimate? Could the children use appropriate units? Could they weigh with increasing accuracy? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C/2D Variety of objects to weigh Digital scales Balance scales (FSD? activity) Weights (FSD? activity only)
Lesson 3	To be able to estimate the weight of an object and check by weighing on scales.	Children will estimate, measure and order the weight of a variety of different books. They will identify books that are heavier or lighter than another, and make increasingly accurate estimations based on their experiences.	<ul style="list-style-type: none"> Could the children estimate? Could the children use appropriate units? Could they weigh with increasing accuracy? 	<ul style="list-style-type: none"> Slides Variety of books Worksheet 3A/3B/3C/3D Scales
Lesson 4	To be able to solve problems involving weight.	Children will solve problems involving weight by adding the weight of various parcels together to see if they can be safely loaded into a delivery van, based on their total weight.	<ul style="list-style-type: none"> Could the children add the weights accurately? Could they decide if the weights were too heavy? Could they investigate different weights? 	<ul style="list-style-type: none"> Slides Worksheet 4A/4B/4C/4D Picture Cards (FSD? activity only)
Lesson 5	To be able to solve problems involving weights.	Children will solve problems involving the cost of sending various parcels based on their weight. They will learn how to work out the price of sending a parcel that is, e.g. 10 kg, if they know that it costs £20 to send 5 kg.	<ul style="list-style-type: none"> Could the children calculate simple prices for parcels? Could they calculate more complex prices? Could they calculate weights from given prices? 	<ul style="list-style-type: none"> Slides Worksheet 5A/5B/5C Boxes, cartons, padded envelopes, etc. (FSD? activity only) Objects to pack (FSD? activity only) Scales (FSD? activity only)

Organising Data : Maths : Year 3 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To interpret data using bar charts.	Children will recap familiar ways of presenting data, such as straightforward tables, pictograms and block diagrams. Moving on, the slides show the features of bar charts and how data can be presented in them. The activities encourage children to start using bar charts as well as using mathematical vocabulary to describe them.	<ul style="list-style-type: none"> • Are children confident interpreting data presented in tables, tally charts, pictograms and block diagrams? • Can children identify the features of bar charts? • Can children read and interpret information presented in bar charts? 	<ul style="list-style-type: none"> • Slides • Worksheets 1A/1B/1C/1D • Maths Vocabulary Cards • Unifix/multilink cubes (FSD? activity only)
Lesson 2	To present data using bar charts.	As a warm-up, children are challenged to think about the features of bar charts. The main focus concerns presenting data collected in tables and tally charts. Children will explore ways of ensuring bar charts are drawn accurately, going on to think about how data in tables can be checked using bar charts and vice-versa. Children are challenged to make accurate bar charts using the provided sets of data.	<ul style="list-style-type: none"> • Can children compare data presented in tables and bar charts? • Can children generate instructions for drawing a bar chart? • Can children present given sets of data in a bar chart? 	<ul style="list-style-type: none"> • Slides • Worksheets 2A/2B/2C/2D • Maths Vocabulary Cards (FSD? activity only) • Large sheets of plain paper (FSD? activity only) • Maths cubes, plastic building blocks, dominoes, playing cards etc. (FSD? activity only)
Lesson 3	To collect data using tally charts and present it using bar charts.	Children will consider what makes a good/bad question when conducting a survey. They are shown some common problems and misconceptions that can arise when making bar charts, before planning and conducting their own survey and showing the data they collect using a bar chart.	<ul style="list-style-type: none"> • Can children devise a logical process for collecting data and presenting it in a bar chart? • Do children understand why (depending on context) it is often important to provide a choice of answers when collecting survey data? • Can children conduct a survey, collect data using a tally chart and present it in a bar chart? 	<ul style="list-style-type: none"> • Slides • Worksheets 3A/3B/3C • Challenge Cards 3A/3B/3C • Rulers and tape measures • Squared paper (FSD? activity only)
Lesson 4	To read and present information in scaled bar charts.	Children will consider why it is useful to be able to present data in bar charts using different scales. Children will study several examples of data sets requiring bar charts at different scales, and learn how to draw and interpret bar charts at 2:1, 5:1 and 10:1 scales.	<ul style="list-style-type: none"> • Can children read information presented on scaled bar charts? • Can children choose an appropriate scale when presenting data using bar charts? • Can children accurately draw scaled bar charts? 	<ul style="list-style-type: none"> • Slides • Worksheets 4A/4B/4C/4D • Bar Charts 4A (FSD? activity only)
Lesson 5	To solve questions with one or two steps by interpreting data presented in bar charts.	Children will consider strategies for unpicking word problems that can be answered using bar charts. They will be challenged to put what they have learned throughout the week into practice by reading and interpreting a variety of bar charts.	<ul style="list-style-type: none"> • Can children find the difference between groups of data presented in bar charts? • Can children identify the steps required to answer questions about data presented in bar charts? • Can children select appropriate sets of data to answer problems with one or two steps? 	<ul style="list-style-type: none"> • Slides • Worksheets 5A/5B/5C/5D • Theme Park Bar Charts

Linking Multiplication and Division : Maths : Year 3 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to count on and back in patterns.	Children will practise counting on and back in steps of a certain size. Starting as a whole class, your children can then work out some number patterns suited to their ability level, using a hundred square to support them.	<ul style="list-style-type: none"> • Could the children count on and back in twos? • Could the children count on and back in threes and fours? • Could the children count on and back in sevens, eights and nines? 	<ul style="list-style-type: none"> • Slides • Worksheet 1A/1B/1C • Hundred Square • Pattern Cards A/B/C (FSD? activity only)
Lesson 2	To revise multiplication facts and their corresponding division facts.	Children will explore the link between multiplication and division, establishing how to derive 'fact families' from one given multiplication or division fact. They will identify whether given multiplication or division statements are correct or solve some missing number problems.	<ul style="list-style-type: none"> • Can children recall facts for the 3 and 4 times tables? • Can children recall facts for the 8 times tables? • Can children find corresponding division and multiplication facts for a given statement? 	<ul style="list-style-type: none"> • Slides • Worksheet 2A/2B/2C • Fact Cards 2A/2B (FSD? activity only)
Lesson 3	To be able to recall multiplication facts quickly.	Children will practise multiplication facts for the 2, 3, 4, 5, 6 and 10 times tables. They will test their recall of these multiplication tables and have opportunities to identify strengths and weaknesses to help them develop their fluency.	<ul style="list-style-type: none"> • Do the children know their 2, 3, 4, 5, 6 and 10 times tables? • Do the children know their 2, 3, 4, 5, 6 and 10 times tables and corresponding division facts? • Can children answer quick-fire multiplication and division questions? 	<ul style="list-style-type: none"> • Slides • Worksheet 3A/3B/3C • Stopwatches • Game Cards A/B/C (FSD? activity only)
Lesson 4	To be able to multiply and divide numbers by 10 and 100.	Children will explore what happens to a number when it is multiplied and divided by 10 and 100. Children will solve a variety of multiplication and division problems using reasoning activities or board games to practise these skills.	<ul style="list-style-type: none"> • Can children multiply a number by 10 or 100? • Can children divide a number by 10 or 100? • Can children multiply or divide numbers by 1000? 	<ul style="list-style-type: none"> • Slides • Worksheet 4A/4B/4C • Dice • Spinner 4A • Game Board 4A/4B (FSD? activity only) • Question Cards 4A/4B (FSD? activity only) • Counters
Lesson 5	To be able to divide two-digit numbers by a single digit and check using the inverse.	Children will explore the concept of division as repeated subtraction, using a number line to support them. They will divide two-digit numbers by single digits, and solve problems involving remainders.	<ul style="list-style-type: none"> • Can children divide numbers by two and three? • Can children divide numbers by four, five and ten? • Can children check their answers using the inverse? 	<ul style="list-style-type: none"> • Slides • Worksheet 5A/5B/5C • Question Sheet A/B/C (FSD? activity only)

Using Division and Multiplication: Maths : Year 3 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To know how to multiply numbers by multiples of 10 and 100 using known facts	Children will first recap on how to multiply by 10 and 100. They will be encouraged to explain what happens to the digits in each number. Children will then learn how to apply this to multiply numbers by multiples of 10 and 100. In their independent activities, children will use this knowledge and understanding to solve tarsia puzzles. Alternatively they will be challenged to find what other number facts they know based on one given number sentence.	<ul style="list-style-type: none"> • Can children multiply and divide numbers using a multiple of 10? • Can children multiply and divide numbers using a multiple of 100? • Can children explain how they reached their answer and how they know it is correct? 	<ul style="list-style-type: none"> • Slides • Tarsia Puzzle Sheet A/B/C • Number Sentence List (FSD? activity) • Reasoning Sheet (FSD? activity only)
Lesson 2	To be able to multiply numbers using partitioning and repeated addition	Children will use their knowledge of partitioning and repeated addition to multiply two- and three-digit numbers by a one-digit number. They will start to use the column method for adding numbers. Children will be encouraged to explain the different steps needed when using this strategy. In their independent activities, they will use spinners to generate and then solve their own number sentences, or alternatively they will identify calculations which contain errors, and correct them.	<ul style="list-style-type: none"> • Can children partition two- and three-digit numbers? • Do children understand how to use repeated addition for multiplication? • Can children explain how they used this method to multiply two- and three-digit numbers by a one-digit number? 	<ul style="list-style-type: none"> • Slides • Number Generator Spinner Set A/B/C • Worksheet 2A/2B/2C • Right or Wrong? Sheet A/B (FSD? activity only) • Corrections Sheet (FSD? activity only)
Lesson 3	To know how to use the grid method for multiplication	Children will be introduced to the grid method for multiplication. They will learn what each box in the grid is for, and how to enter the information from the number sentence that they are solving. They will learn where each separate multiplications should go, and how to recombine using addition to find the final answer.	<ul style="list-style-type: none"> • Do children understand how to use the grid method to solve multiplication number sentences? • Can children explain how to use the grid method? • Can children use the grid method to solve and check answers to number sentences? 	<ul style="list-style-type: none"> • Slides • Grid Method Cards A/B/C • Grid Method Investigation Sheet (FSD? activity only)
Lesson 4	To know how to solve division number sentences with repeated subtraction	Children will recap on how to use repeated subtraction on a number line to solve number sentences where they are dividing two- and three-digit numbers by a one-digit number. They will be encouraged to think about where mistakes could be made when using this method, and discuss how they can ensure that they themselves do not make these errors.	<ul style="list-style-type: none"> • Can children solve a division number sentence using repeated subtraction on a number line? • Can children explain how to solve a division sentence using repeated subtraction? • Can children identify and correct errors in the number sentences which have been incorrectly solved using the repeated subtraction method? 	<ul style="list-style-type: none"> • Slides • Worksheet 4A/4B/4C • Blank Number Line Strips Sheet (FSD? activity only) • Instruction Cards A/B/C (FSD? activity only)
Lesson 5	To know how to solve missing number problems	Children will recap on the methods they have used for multiplication and division over the last few lessons. They will then compare and contrast two methods for finding a missing number in a sentence – trial and improvement, and using the inverse operation. In their independent activities, children will be encouraged to use the inverse operation when playing the What's Missing? board game, or in the alternate activity, they will use the trial and improvement method to find missing numbers.	<ul style="list-style-type: none"> • Do children understand what an inverse operation is? • Can children use the inverse operation to solve missing number problems involving multiplication and division? • Can children explain their methods and reasoning? 	<ul style="list-style-type: none"> • Slides • What's Missing? Game A/B/C • What's Missing? Instructions Card • Dice, different coloured counters • Blank Number Lines Sheet • Blank Grid Method Boxes Sheet • Challenge Cards A/B (FSD? activity only)

What's the Time? : Maths : Year 3 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to tell the time on an analogue clock to the nearest five minutes.	Children will recap telling the time to the nearest quarter of an hour and the nearest five minutes. They will practise counting in fives to help them tell the time more quickly on an analogue clock.	<ul style="list-style-type: none"> Can children tell the time on an analogue clock to the nearest quarter of an hour? Can children tell the time on an analogue clock to the nearest five minutes? Can children tell the time on an analogue clock to the nearest minute? 	<ul style="list-style-type: none"> Slides Analogue clock faces Worksheet 1A/1B/1C Time Cards 1A/1B (FSD? activity only)
Lesson 2	To be able to tell the time on an analogue clock to the nearest minute.	Children will recap telling the time to the nearest five minutes and will then learn how to tell the time to the nearest minute. They will identify the times of various daily activities and match times on an analogue clock to their written description.	<ul style="list-style-type: none"> Do children know how many minutes there are in an hour? Can children tell the time to the nearest minute on analogue clocks? Can children match a written time to a time shown on an analogue clock? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C Information Sheet Jigsaw Time Pieces (FSD? activity only) Blank Jigsaw Time Pieces (FSD? activity only) Analogue clock faces - plenary
Lesson 3	To be able to tell the time on analogue and digital clocks.	Children will be introduced to digital clocks as they explore different ways of reading and expressing times. They will explore how digital clocks work and how they are different to analogue clocks, and learn how to say the time in different ways, such as 'three twenty' and 'twenty past three'.	<ul style="list-style-type: none"> Do children know the difference between analogue and digital clocks? Do children know that the same time can be said in different ways? Can children match times shown on analogue and digital clocks? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C/3D Digital Clock Cards 3A/3B Analogue Clock Cards 3A/3B Time Cards 3A/3B (FSD? activity only)
Lesson 4	To be able to match morning and afternoon times to events throughout the day.	Children will learn the difference between 'a.m.' and 'p.m.'. They will also define the terms 'midnight', 'midday', 'dawn' and 'dusk'. Children will read and interpret daily timetables or create their own timetables to show what they do at different times in a typical day.	<ul style="list-style-type: none"> Do children know that the hour hand moves around an analogue clock twice in one day? Do children know the difference between a.m. and p.m.? Can children identify events that might happen at certain times in a typical day? 	<ul style="list-style-type: none"> Slides Worksheet 4A/4B/4C Blank Timeline Sheet (FSD? activity only)
Lesson 5	To be able to solve word problems involving time.	Children will solve a variety of word problems relating to time. They will learn how to use analogue clocks to work out the start and end times of different activities to calculate time intervals.	<ul style="list-style-type: none"> Can children read times on analogue and digital clocks? Can children solve problems involving time intervals? Can children solve problems involving comparing duration of events? 	<ul style="list-style-type: none"> Slides Worksheet 5A/5B/5C/5D Analogue clocks Time Cards 5A/5B (FSD? activity only)

Rounding and Estimating : Maths : Year 3 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to round numbers to the nearest 10 or 100.	Children will learn how to round numbers to the nearest ten and the nearest hundred. They will round numbers in order to find approximate answers to addition questions and investigate rounded numbers that reach a given total when added together.	<ul style="list-style-type: none"> • Can children round to the nearest 10? • Can children round to the nearest 100? • Can children use rounding to find approximate answers in addition calculations? 	<ul style="list-style-type: none"> • Slides • Worksheet 1A/1B/1C • Bingo Game Sheet (FSD? activity only) • Digit Cards
Lesson 2	To be able to identify characteristics of numbers and to order and compare numbers.	Children are challenged to think of as many properties of three-digit numbers as they can, including whether it is odd or even, what each digit is worth and what the number can be rounded to. They will order and compare numbers and think about ways of grouping a set of numbers according to their own criteria.	<ul style="list-style-type: none"> • Can children describe some properties of three-digit numbers? • Can children identify similarities and differences between two numbers? • Can children order numbers? 	<ul style="list-style-type: none"> • Slides • Number Cards 2A/2B/2C/2D • Worksheet 2A
Lesson 3	To be able to make estimates of numbers.	Children will make estimates of the number of objects in a given set, exploring how to make reasonable estimates as they develop their understanding. They will also check their estimates to see how close their estimates were in order to help inform future estimates.	<ul style="list-style-type: none"> • Can children make reasonable estimates for small numbers of objects? • Can children make reasonable estimates for larger numbers of objects? • Can children check their estimates accurately and check how close they were? 	<ul style="list-style-type: none"> • Slides • Worksheet 3A/3B/3C/3D • Cubes, counters and paperclips
Lesson 4	To be able to make estimates in real-life contexts.	Children will use a scaled map to make estimates as to the distance between various cities. They can also estimate the length, weight and capacity of a variety of different objects. They will compare their estimates to actual measurements to see how close their estimates were.	<ul style="list-style-type: none"> • Can children use knowledge of length, weight and capacity to make estimations? • Can children use the correct units of measurement for measuring length, weight and capacity? • Can children find the difference between an estimate and an actual measurement? 	<ul style="list-style-type: none"> • Slides • Worksheet 4A/4B/4C/4D • UK Cities Map • Answer Sheet A/B • Calculators • Estimate Cards (FSD? activity only)
Lesson 5	To be able to make estimates in practical contexts.	Children will make estimates about the duration of different events. They will estimate the time it takes, for example, to write their name, then check their estimates against an accurate time. They are challenged to work out the difference between their estimate and the actual measurement.	<ul style="list-style-type: none"> • Can children make accurate estimates? • Can children find the actual answers to questions to compare to an estimate? • Can children find the difference between an estimate and an actual answer? 	<ul style="list-style-type: none"> • Slides • Stopwatches • Worksheet 5A/5B/5C/5D • Estimate Cards (FSD? activity only) • Items for question card challenges, e.g. marbles, counters, cubes, plastic cups, plastic bottles, jam jars, etc. (FSD? activity only)

Knowing Number Facts: Maths : Year 3 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To add tens mentally.	Children will consider and explain, using place value, what is happening when tens are added to another number – firstly without, then with, exchanging. They will go on to develop strategies for mentally solving addition of tens to two- and three-digit numbers, applying these while practising solving calculations presented using a variety of operational language.	<ul style="list-style-type: none"> Can children use number bonds to mentally solve two- and three-digit + tens calculations? Can children visualise informal, written methods or practical resources to help mentally solve calculations where exchanging is required? Can children add several tens to a two-digit number, e.g. $36 + 20 + 30 + 10$? 	<ul style="list-style-type: none"> Slides Worksheets 1A/1B/1C 0–9 Number Cards Dienes Base 10 resources Adding Answers Cards (FSD...? activity only)
Lesson 2	To mentally solve missing number problems, adding or subtracting tens to or from two-, three- and four-digit numbers.	Children will learn and develop strategies for mentally solving increasingly challenging missing number problems where tens/hundreds are added/ subtracted. They may then go on either to select problems of varying difficulty to solve, or solve given missing number problems to crack a code and discover a secret message.	<ul style="list-style-type: none"> Can children use addition to solving missing number subtraction problems mentally? Can children use subtraction to solve missing number addition problems mentally? Can children mentally solve more complex addition and subtraction missing number problems, e.g. $31 + 30 = \square + 40$? 	<ul style="list-style-type: none"> Slides Question Sticks 2A/2B/2C Worksheets 2A/2B/2C Codebreaker sheet (FSD...? activity only) Secret Codes 2A/2B/2C (FSD...? activity only)
Lesson 3	To select and use mental methods (including a 'compensation method') for subtracting hundreds, tens and ones.	Children will warm up by finding pairs of numbers which total fifty, then take a look at how place value knowledge can help when subtracting tens or hundreds from another number. They will go on to learn, develop and practise a mental compensation method for subtracting tens numbers.	<ul style="list-style-type: none"> Can children count back in multiples of ten/hundred to solve subtraction calculations mentally? Can children use place value knowledge to mentally solve subtraction calculations? Can children select appropriate mental methods for subtracting, depending on the values shown? 	<ul style="list-style-type: none"> Slides Worksheets 3A/3B/3C Bullseye! Game Board (FSD...? activity only) Counters (FSD...? activity only)
Lesson 4	To develop mental strategies for subtracting tens and hundreds.	Building on their prior knowledge of subtracting tens and hundreds, children will develop strategies for mentally solving subtraction calculations with multiple operations, e.g. $345 - 80 - 20 - 40$. They may then either practise and develop these strategies by playing subtraction games, or by completing a timed subtraction challenge.	<ul style="list-style-type: none"> Can children explain how multi-operation calculations may be solved in different ways? Can children add multiple amounts to be subtracted in a calculation? Can children identify which digits in a number will change when tens/hundreds are subtracted? 	<ul style="list-style-type: none"> Slides Number Cards 4A Subtracting Games 4A/4B/4C Plastic cups, counters, ping pong balls, tennis balls or similar Calculation Challenge 4A cards (FSD...? activity only)
Lesson 5	To count in multiples of four and eight, and mentally subtract using a compensation method.	Building upon strategies developed during previous lessons, children will practise using a mental compensation method to subtract 8, 9, 80 or 90. They will also consider and discuss methods for solving missing number problems with these subtractions. Children may then either write and solve subtraction calculations, or work on a simple subtraction investigation.	<ul style="list-style-type: none"> Can children rapidly recall multiples of four and eight? Can children use a compensation method to mentally subtract eight? Can children apply their understanding of this method when subtracting 9, 80 or 90? 	<ul style="list-style-type: none"> Slides Worksheets 5A/5B/5C Challenge Cards 5A-5C (FSD...? activity only)

Let's Add and Subtract: Maths : Year 3 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to use a variety of appropriate methods to solve addition and subtraction problems.	Children start by answering questions about what addition and subtraction are, before clarifying the relationship between the two operations. Bar models are used to support children with this. They are then challenged to solve some addition and subtraction missing number problems using a variety of methods and approaches.	<ul style="list-style-type: none"> Do children know that addition is the inverse of subtraction, and vice versa? Can children solve addition problems using a variety of appropriate methods? Can children solve subtraction problems using a variety of appropriate methods? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C Mindmap Calculation Sheet (FSD? activity only) Mindmap Calculation Cards 1A/1B/1C (FSD? activity only)
Lesson 2	To be able to use the formal column addition method.	Children will start by being shown a formal column addition calculation where the digits have been replaced with place value counters. They will use this diagram to explain what is being shown and start to understand how the formal column method works. The slides then go through further examples, modelling how to solve formal column addition, using place value counters to support. Children can then use column addition to solve a variety of problems.	<ul style="list-style-type: none"> Can children describe how the formal column addition method works? Can children use the formal column addition method with calculations that involve exchanging? Can children use the formal column addition to solve a variety of problems? 	<ul style="list-style-type: none"> Slides Place Value Counter Cards (input) Number Cards Game Sheet 2A/2B/2C Worksheet 2A Challenge Cards (FSD? activity only)
Lesson 3	To be able to use the formal column subtraction method.	Children start by estimating the answer to a subtraction calculation, then considering how they could find the actual answer. They then go on to explore column subtraction, using place value counters to help them visualise what is happening when numbers are exchanged. They then have a variety of problems to solve, using column subtraction to find the solutions.	<ul style="list-style-type: none"> Can children describe how the formal column subtraction method works? Can children use the formal column subtraction method with calculations that involve exchanging? Can children use the formal column subtraction to solve a variety of problems? 	<ul style="list-style-type: none"> Slides Place Value Counter Cards (input) Challenge Cards 3A/3B/3C Worksheet 3A Place Value Number Cards 3A/3B (FSD? activity only)
Lesson 4	To be able to use addition and subtraction methods to solve problems.	This lesson will deepen their understanding of the relationship between addition and subtraction. Numbers within addition and subtraction sentences are replaced with symbols. Children are challenged to work out the value of the symbols using their knowledge of addition and subtraction.	<ul style="list-style-type: none"> Can children use appropriate addition and subtraction methods to solve problems? Can children check the answers to addition and subtraction problems using the inverse? Can children use their reasoning skills to solve problems? 	<ul style="list-style-type: none"> Slides Worksheet 4A/4B/4C Code Cracker 4A/4B/4C (FSD? activity only) Calculation Cards 4A/4B/4C (FSD? activity only) Code Words 4A/4B/4C (FSD? activity only)
Lesson 5	To be able to use addition and subtraction to solve word problems.	Children are challenged to use their knowledge of addition and subtraction to solve a variety of word problems. The slides guide children through some different questions, using the RUCSAC model to help them identify and complete the different steps needed to successfully solve word problems. Children are challenged to use the inverse to check their answers.	<ul style="list-style-type: none"> Can children read word problems and understand what they are being asked to find out? Can children choose appropriate operations and methods to solve addition and subtraction problems? Can children check that their answers are accurate? 	<ul style="list-style-type: none"> Slides Challenge Cards 5A/5B/5C Question Cards (FSD? activity only) Worksheet 5A/5B/5C (FSD? activity only)

Using Times Tables : Maths : Year 3 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To revise multiplication facts and identify multiples of eight.	Children will use a hundred square to support them in counting in multiples of eight. They will find out what the word 'multiple' means and explore the link between multiples of four and multiples of eight. The independent learning activities give them opportunities to become more familiar with the eight times table, or recap other times tables facts.	<ul style="list-style-type: none"> • Can children count in multiples of eight? • Do children understand what the term 'multiple' means? • Can children recall facts for the four and eight times tables? 	<ul style="list-style-type: none"> • Slides • Number Fact Cards • Colour by Number sheet • Game Board • Dice • Coloured pencils • Times Table Memory Games (FSD? activity only)
Lesson 2	To investigate multiples of three, four and eight.	Children will recap what a multiple is before identifying factors of different multiples. They will identify the 'odd one out' in a set of multiples and practise the eight times table. They will complete number statements in a variety of ways to show how factor pairs of different multiples or carry out investigations into multiples of three, four and eight.	<ul style="list-style-type: none"> • Can children identify and recall multiples of three? • Can children identify and recall multiples of four? • Can children identify and recall multiples of eight? 	<ul style="list-style-type: none"> • Slides • Worksheet 2A/2B/2C • Multiplication Grid • Sometimes, Always or Never Cards (FSD? activity only)
Lesson 3	To be able to use multiplication facts to recall division facts.	Children will identify the link between multiplication and division. They will derive division facts from a given multiplication statement. They will focus on rapid recall of both multiplication and division facts for a variety of times tables.	<ul style="list-style-type: none"> • Do children understand the link between multiplication and division? • Can children use multiplication to solve division questions? • Can children recall division facts? 	<ul style="list-style-type: none"> • Slides • Game Board 3A/3B/3C • Dice and counters • Division Race Cards (FSD? activity only)
Lesson 4	To be able to recall multiplication facts.	Children will focus on rapid recall of multiplication facts for a variety of times tables. Children will complete differentiated multiplication grids, with higher-ability children deriving missing factors within the grid as well as missing multiples. They can also play games to reinforce times table facts.	<ul style="list-style-type: none"> • Can children recall facts for the 2, 5 and 10 times tables? • Can children recall facts for the 3, 4 and 8 times tables? • Can children use known times table facts to derive associated facts? 	<ul style="list-style-type: none"> • Slides • Blank Bingo Grids 🐝 • Worksheet 4A/4B/4C • Take Away Game sheets (FSD? activity only) • Dice and counters (FSD? activity only)
Lesson 5	To be able to use the grid method to solve multiplication problems.	Children will recap how the grid method works to solve multiplication problems. They will start with two-digit by two-digit calculations, then move on to three-digit by two-digit calculations if appropriate. The independent learning activities give opportunities to practise this method, as well as solving an investigation.	<ul style="list-style-type: none"> • Can children recall and use multiplication facts? • Can children partition numbers correctly? • Can children use the grid method of multiplication correctly? 	<ul style="list-style-type: none"> • Slides • Worksheet 5A/5B/5C • Multiplication Table • Challenge Cards 5A/5B (FSD? activity only) • Digit Cards (FSD? activity only)

Shapes and Angles : Maths : Year 3 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to recognise right angles as a description of a turn.	Children will identify what a right angle is and identify right angles in 2D shapes. They will then recognise right angles as a description of a turn, using the terms 'clockwise' and 'anti-clockwise' to turn a quarter, half, three-quarter or full turn in both directions. Higher-ability children will use the four compass points to further describe turns.	<ul style="list-style-type: none"> Do children know what a right angle is? Can children recognise right angles as being a description of a turn? Can children describe a turn using appropriate vocabulary? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C Clock Cards A/B (FSD? activity only) Direction Cards A/B (FSD? activity only)
Lesson 2	To be able to identify angles that are greater than or less than a right angle.	Children will be introduced to acute and obtuse angles, and will find out how to identify if an angle is greater than or less than a right angle. They will identify different types of angles in a variety of 2D shapes and objects around them. They will start to think about how to estimate the size of an angle, based on their knowledge of a right angle as ninety degrees.	<ul style="list-style-type: none"> Can children recognise a right angle? Can children recognise angles that are greater than a right angle? Can children recognise angles that are less than a right angle? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B Shape Sheet A/B/C
Lesson 3	To be able to identify horizontal and vertical lines.	Children will learn what the terms 'horizontal' and 'vertical' mean before identifying horizontal and vertical lines in 2D shapes and objects around them.	<ul style="list-style-type: none"> Do children know what a horizontal line is? Do children know what a vertical line is? Can children identify horizontal and vertical lines within shapes and objects? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C Instruction Sheet (FSD? activity only)
Lesson 4	To identify parallel and perpendicular lines in shapes.	Children will learn what the terms 'parallel' and 'perpendicular' mean before identifying parallel and perpendicular lines in 2D shapes and objects around them. They will also identify shapes being described from clues about its properties, including different types of lines and angles.	<ul style="list-style-type: none"> Can children identify parallel lines? Can children identify perpendicular lines? Can children identify horizontal and vertical lines? 	<ul style="list-style-type: none"> Slides Worksheet 4A Criteria Cards Shape Cards Description Cards (FSD? activity only)
Lesson 5	To be able to draw 2D shapes accurately according to a description.	Children will learn to draw shapes according to descriptions of their properties, including the number and length of sides, type of angles, type of lines (parallel, perpendicular, horizontal and vertical) and whether it is a regular or irregular shape. Children can also describe a given shape using appropriate vocabulary.	<ul style="list-style-type: none"> Can children identify properties of shapes? Can children describe a 2D shape according to its properties? Can children draw a 2D shape accurately according to a description? 	<ul style="list-style-type: none"> Slides Rulers and/or set squares Worksheet 5A Description Cards A/B Shape Cards (FSD? activity only)

Multiplication Problems: Maths : Year 3 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To recognise and use multiples of three, four and eight.	In this lesson the children will use their knowledge of multiples to investigate and predict different patterns involving the three, four and eight times tables. After refreshing their memories of multiples for each number, the children are asked to spot similarities between multiples and begin to use this understanding to label larger numbers as multiples of other numbers i.e. multiples of two are always even, therefore 246 is a multiple of two.	<ul style="list-style-type: none"> • Can children recall multiples of three? • Can children recall multiples of four and eight? • Can children recognise similarities between multiples i.e. all multiples of four are even? 	<ul style="list-style-type: none"> • Slides • Challenge Cards 1A/1B/1C • Plain paper • Felt tips • Coloured counters • Spinner (FSD? activity only) • Game Board (FSD? activity only) • Game Instructions (FSD? activity only) • Paper clips (FSD? activity only)
Lesson 2	To use the expanded short multiplication method.	Using previous knowledge of the grid method the children begin to progress into the use of formal written methods by learning the expanded short multiplication method. They compare the two methods and identify similarities between the two. The children also have the opportunity to evaluate each method and say which they prefer before using the methods to work out ticket sales at the aquarium.	<ul style="list-style-type: none"> • Can children compare the grid method and the expanded method to find any similarities or differences? • Can children describe the process of using the expanded method? • Can children use the expanded method to solve $TO \times O$ calculations? 	<ul style="list-style-type: none"> • Slides • Worksheets 2A/2B/2C • Multiplication Squares • Worksheet 2D (FSD? activity only) • Challenge Cards 2A (FSD? activity only) • Calculation Cards 2A/2B/2C
Lesson 3	To use systematic and logical methods to solve correspondence problems.	In this lesson the children will be challenged to develop their problem-solving skills when approaching a problem which requires them to think logically and systematically. They must find all the possible combinations of objects from a set, responding to required criteria. They apply these skills to finding solutions to real-life problems based around running an aquarium.	<ul style="list-style-type: none"> • Can children identify one possible combination within a set of objects? • Can children use a systematic and logical method to solve correspondence problems? • Are children able to find all possible combinations within a set of objects? 	<ul style="list-style-type: none"> • Slides • Worksheets 3A/3B/3C • Counters • Hundred squares • Sticky notes • Challenge Cards 3A/3B/3C (FSD? activity only) • Combination Cards (FSD? activity only)
Lesson 4	To use known multiplication strategies to solve scaling problems.	This lesson challenges the children to use the language of scaling when solving multiplication problems. They need to use the systematic and logical approaches from previous lessons to solve scaling questions with more than one possible answer.	<ul style="list-style-type: none"> • Can children recognise which multiplication to use when solving a scaling problem? • Are children able to employ a systematic and logical approach to solving scaling problems? • Are children able to use reasoning to back up their decisions when working through a scaling problem? 	<ul style="list-style-type: none"> • Slides • Worksheets 4A/4B/4C/4D • Worksheets 4E/4F/4G (FSD? activity only)
Lesson 5	To use multiplying by 10 and 100 to solve a multi-step problem.	In this final lesson the children bring together the learning they have done over the week to solve a larger problem based around the deca-anemone. The children will work in groups to produce representations of the problem as well as having the opportunity to pose their own 'What if...?' questions regarding the previous problem.	<ul style="list-style-type: none"> • Can children multiply by 10 and 100? • Can children produce a logical thought process when solving a problem? • Can children use their understanding of the four operations to solve a multi-step problem? 	<ul style="list-style-type: none"> • Slides • Game Board • Dice • Coloured counters • Dienes set or objects to model problem. • Large paper • Felt tips

Clock Watching : Maths : Year 3 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To recap how to tell the time to the nearest minute on analogue and digital clocks.	Children will recap how to tell the time to the nearest minute on analogue and digital clocks. They will match times shown on analogue and digital clocks, as well as times written out in word form. They will recap units of time, such as hour, week day, month and year, and establish how they are linked to one another.	<ul style="list-style-type: none"> • Can children tell the time to the nearest minute on an analogue clock? • Can children tell the time to the nearest minute on a digital clock? • Can children remember how various units of time relate to one another? 	<ul style="list-style-type: none"> • Slides • Clock Cards 1A/1B/1C • Question Cards 1A/1B (FSD? activity only) • Hour Cards (FSD? activity only) • Analogue clock faces (FSD? activity only)
Lesson 2	To be able to tell the time on 24-hour clocks.	Children will recap the difference between 'a.m.' and 'p.m.' and learn how to tell the time on a digital 24-hour clock. Children will match p.m. analogue clock times with their corresponding 24-hour digital clocks. They will also consider various daily events and predict whether they think they are happening in the morning or afternoon, expressing the time on a digital clock accordingly.	<ul style="list-style-type: none"> • Do children know that there are 24 hours in a day? • Can children explain how a 24-hour digital clock works in relation to an analogue clock? • Can children read and tell the time using a 24-hour clock? 	<ul style="list-style-type: none"> • Slides • Worksheet 2A/2B/2C • Help Sheet • Time Bingo Cards (FSD? activity only)
Lesson 3	To be able to record and compare times using a stopwatch.	Children will estimate, measure and compare the duration of events. They will use stopwatches to time themselves completing a variety of activities, then analyse the results by comparing and order the times.	<ul style="list-style-type: none"> • Can children accurately measure times on a stopwatch? • Can children order the duration of events accurately? • Can children compare the duration of events? 	<ul style="list-style-type: none"> • Slides • Stopwatches • Worksheet 3A/3B/3C
Lesson 4	To be able to compare the duration of events.	Children will work out the duration of various journeys, using clocks to support them. They will express the answers using both analogue and digital clocks and reinforce reading the time to the nearest minute. They will compare the duration of journeys by stating which was longest and shortest.	<ul style="list-style-type: none"> • Can children read and compare times? • Can children compare the duration of events? • Can children work out how long activities take from a given start and end time? 	<ul style="list-style-type: none"> • Slides • Train Timetable 4A/4B/4C • Worksheet 4A/4B/4C • Analogue clock faces if necessary • Clock Cards 4A/4B/4C (FSD? activity only)
Lesson 5	To be able to solve word problems involving the duration of events.	Children will solve a variety of real-life word problems that involve working out the duration of events. They will establish what the question is asking them and use their knowledge of reading and telling the time to solve problems.	<ul style="list-style-type: none"> • Can children identify what a word problem is asking them? • Can children use an appropriate method to solve a problem related to time? • Can children check their answers? 	<ul style="list-style-type: none"> • Slides • Clock faces - optional • Worksheet 5A/5B/5C/5D • Cinema Listings sheet (FSD? activity only)

What is Capacity? : Maths : Year 3 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To know the relationship between litres and millilitres and choose appropriate units of measurement to measure capacity.	Children will list different units of measurement and identify which can be used to measure capacity. They will explore the relationship between litres and millilitres and start to think about which would be most appropriate to measure the capacity of a variety of different containers.	<ul style="list-style-type: none"> Do children know which units of measurement are used to measure capacity? Can children select appropriate units of measurement? Can children convert litres to millilitres and vice versa? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C Capacity Cards (FSD? activity only) Answer Sheet (FSD? activity only)
Lesson 2	To be able to estimate and measure capacity.	Children will learn to use measuring jugs to measure the capacity of a variety of containers. They will use their understanding to make reasonable estimates, and check these using measuring jugs. They can also try pouring target amounts into a container, then measure to see how close they were.	<ul style="list-style-type: none"> Can children give reasonable estimates? Can children measure capacity accurately? Can children find the difference between their estimates and the actual measurements? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C/2D Variety of containers to measure (e.g. yogurt pots, cups, bowls, cans, etc.) Measuring jugs Funnels Water jugs Measurement Cards (FSD? activity only)
Lesson 3	To be able to compare and measure the capacity of a variety of objects.	Children will order and compare the capacity of a variety of everyday containers. They will estimate the order of containers, then measure their actual capacity to see how close their estimates were.	<ul style="list-style-type: none"> Can children compare the capacity of different containers? Can children order containers based on an estimate of their capacity? Can children order containers based on an actual measurement of their capacity? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C Variety of containers Measuring jugs Water jugs Capacity Labels (FSD? activity only)
Lesson 4	To be able to read scales that are numbered or partially numbered.	Children will read numbered scales to the nearest division, some of which are partially numbered, to measure capacity. They will also mark given capacities on blank measuring jugs.	<ul style="list-style-type: none"> Can children read scales to the nearest division? Can children draw scales to the nearest division? Can read partially numbered scales accurately? 	<ul style="list-style-type: none"> Slides Worksheet 4A/4B/4C/4D/4E/4F Monster Cocktail Cards (FSD? activity only)
Lesson 5	To be able to use addition and subtraction to solve problems involving capacity.	Children will solve a variety of addition and subtraction problem relating to capacity using both litres and millilitres. Children will work out how much more liquid needs to be added to reach a particular capacity, the capacity of a container after a certain amount of liquid has been removed, and other similar problems.	<ul style="list-style-type: none"> Can children add in millilitres and litres? Can children subtract in millilitres and litres? Can children solve a variety of problems involving capacity? 	<ul style="list-style-type: none"> Slides Worksheet 5A/5B/5C Game Cards A/B/C (FSD? activity only)

Collecting and Sorting Data : Maths : Year 3 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To interpret data presented in bar charts, pictograms and tables.	Children will read and interpret data presented in a variety of ways, including tables, pictograms, block diagrams and bar charts.	<ul style="list-style-type: none"> Can children suggest ways of presenting data given in a written statement? Can children identify key features of tallies, pictograms and bar charts? Can children begin to interpret data in bar charts by asking and answering questions? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C Statement 1A/1B/1C/1D/1E/1F (FSD? activity only) Blank writing/math frames
Lesson 2	To consider how to collect data when doing a survey.	Children will consider how best to write questions with choices of answers when collecting data to be presented using pictograms and bar charts. They will then either generate questions for a survey, or decide on the most appropriate way of presenting given sets of data.	<ul style="list-style-type: none"> Can children think of detailed survey questions to ask that are related to a broader statement? Can children write or improve questions so that they produce data that can be presented in tables and charts? Can children plan a simple survey? 	<ul style="list-style-type: none"> Slides Checklist 2A/2B/2C Worksheet 2A Blank maths frame
Lesson 3	To make tables or questionnaires which can be used to collect survey data.	Children will use mind maps to help with planning a survey, then either draw tally charts to help them collect data or design simple questionnaires.	<ul style="list-style-type: none"> Can children identify questions which are not helpful when collecting data? Can children improve questions to help them collect useful data? Can children design tallies or simple questionnaires to help them collect data? 	<ul style="list-style-type: none"> Slides Worksheet 3A Challenge Card 3A/3B Questionnaire 3A/3B/3C Blank maths/writing frames
Lesson 4	To present data using bar charts with an appropriate scale.	Children will read and interpret data presented in bar charts with a variety of scales, then present given (or previously collected) sets of data using bar charts with appropriate scales.	<ul style="list-style-type: none"> Can children identify some choices regarding presenting and sorting data when making a bar chart? Can children suggest appropriate scales for bar charts? Can children present data using a bar chart? 	<ul style="list-style-type: none"> Slides Challenge Card 4A/4B Bar Chart (1:1, 2:1, 3:1, 4:1, 5:1, 10:1) sheets Blank maths frame Spreadsheet software (FSD? activity only)
Lesson 5	To write and answer questions using bar charts.	Children will learn strategies to help solve two-step problems about data presented in bar charts. They will then write and solve their own word problems about given sets of data.	<ul style="list-style-type: none"> Can children work methodically when answering questions using bar charts? Can children correctly identify the data in a bar chart required to answer a question? Can children write statements to show what they have learned by asking and answering questions about data in bar charts? 	<ul style="list-style-type: none"> Slides Worksheet 5A/5B Survey Report 5A/5B Bar Chart Challenge 5A/5B

Fractions in Action : Maths : Year 3 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to identify, record and calculate eighths.	Children will explore what eighths are and how they relate to halves and quarters. They will learn the terms 'numerator' and 'denominator' and start thinking about how fractions with the same denominator can be added and subtracted. They will identify what fraction of a shape is shaded, and shade shapes to reflect a given fraction.	<ul style="list-style-type: none"> • Can the children shade in eighths on shapes? • Can the children record eighths? • Can they add and subtract in eighths? 	<ul style="list-style-type: none"> • Slides • Worksheet 1A/1B/1C • Fraction Cards (FSD? activity only)
Lesson 2	To be able to compare halves, quarters and eighths and recognise simple equivalences.	Children will learn what equivalent fractions are and start to identify equivalences between halves, quarters, eighths and sixteenths. Children will use fraction walls to support their learning. They will also recap how to add fractions with a common denominator and compare fractions with different denominators.	<ul style="list-style-type: none"> • Can the children recognise simple fractions? • Can the children recognise simple equivalent fractions? • Can the children add simple fractions? 	<ul style="list-style-type: none"> • Slides • Worksheet 2A/2B/2C • Fractions Cards (FSD? activity only) • Fraction Wall (FSD? activity only)
Lesson 3	To be able to identify and order fractions and simple equivalences.	Children will use their knowledge of fractions and their equivalents to compare and order fractions. They will place fractions on a number to show their value and will think about ways fractions are used in everyday life.	<ul style="list-style-type: none"> • Can the children recognise simple fractions? • Can the children recognise simple equivalent fractions? • Can the children order fractions? 	<ul style="list-style-type: none"> • Slides • Worksheet 3A/3B/3C • Fraction Bingo sheets (FSD? activity only)
Lesson 4	To be able to solve problems involving fractions.	Children will use their knowledge of fractions to solve a variety of problems, including finding fractions of numbers and objects, ordering fractions and answering true or false questions.	<ul style="list-style-type: none"> • Can the children recognise equivalent fractions? • Can the children order fractions? • Can the children solve simple fraction problems? 	<ul style="list-style-type: none"> • Slides • Worksheet 4A/4B/4C/4D • Domino Cards A/B (FSD? activity only)
Lesson 5	To be able to add and subtract fractions with a common denominator.	Children will learn how to add and subtract fractions with the same denominator. They will learn how to convert an improper fraction into a mixed number fraction and vice versa in order to make addition and subtraction calculations easier to solve. They can also convert an addition or subtraction calculation using their knowledge of equivalent fractions.	<ul style="list-style-type: none"> • Can the children order fractions? • Can the children solve simple fraction problems? • Can the children add and subtract simple fractions? 	<ul style="list-style-type: none"> • Slides • Worksheet 5A/5B/5C/5D • Question Cards (FSD? activity only)