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.	• Can children identify place value in 3-digit numbers? • Can children write numbers in digits? • Can children write numbers in words?	• 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.	• Can the children order two-digit numbers correctly? • Can the children order three-digit numbers correctly? • Can the children order four-digit numbers correctly?	• 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.	• 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?	• 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.	• 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?	• 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.	• 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?	• Slides • Worksheet 5A/5B/5C • Hundred Square • Number Card Sets (FSD? activity only)

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different...?' activity within the lesson plan

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.	• 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?	• 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.	• 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?	• 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.	• 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?	• 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.	• 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?	• 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.	• 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?	• Slides • Worksheet 5A/B/C • Addition Pyramid Sheet A/B (FSD? activity only) • Instructions Card (FSD? activity only)

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different...?' activity within the lesson plan

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.	• 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?	• 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.	• 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?	• 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.	• Can children solve addition problems? • Can children solve addition problems mentally? • Can children use the inverse operation to check answers?	• 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.	• 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?	• 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.	• Can children recall addition facts mentally? • Can children solve missing number problems? • Can children check an answer using the inverse?	• Slides • Worksheet 5A/5B/5C/5D • Cover Cards (FSD? activity only) • Sticky tack (FSD? activity only)

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different...?' activity within the lesson plan

Mental Subtraction : Maths : Year 3 : Autumn Term

PlanBee

	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.	• 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?	• 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.	• 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?	• 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.	• 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?	• 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.	• Can children check an answer using the inverse? • Can children recall addition and subtraction facts mentally? • Can children solve missing number problems?	• 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.	• 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?	• Slides • Worksheets 5A/5B/5C • Alien Jumble Sale Cards A/B/C (FSD? activity only)

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different...?' activity within the lesson plan

2D Shape : Maths : Year 3 : Autumn Term

PlanBee

	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.	• Can children identify a variety of 2D shapes? • Can children describe the properties of 2D shapes? • Can children identify a shape from its description?	• 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.	• 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?	• 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.	• Do children know what a perimeter is? • Can children find the perimeter of simple 2D shapes? • Can children measure the perimeter of objects accurately?	• 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.	• Can children describe basic shape properties? • Can children sort shapes according to given criteria? • Can children choose their own criteria for sorting shapes?	• 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.	• Can children construct shapes according to instructions? • Can children construct shapes? • Can children investigate different ways to create shapes using tangrams?	• Slides • Tangram Sheet (copied onto card if possible) • Worksheet 5A/5B/5C • Tangram Shape Cards (FSD? activity only) • Solution Cards (FSD? activity only)

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different...?' activity within the lesson plan

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.	• 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?	• 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.	• Can children select an appropriate unit of measurement? • Can children make reasonable estimates? • Can children measure accurately?	• 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.	• Can children select appropriate units of measurement? • Can children make reasonable estimates? • Can children measure accurately?	• 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.	• Can children order centimetre lengths? • Can children order mixed lengths? • Can children use the < and > symbols?	• 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.	• Can children solve problems involving length? • Can children check their answers? • Can children convert units of measurement, using decimals?	• Slides • Worksheet 5A/5B/5C • Question Sheets A/B/C (FSD? activity only)

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different...?' activity within the lesson plan

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.	• 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?	• 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.	• 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?	• 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.	• 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?	• 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.	• 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?	• 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.	• 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?	• Slides • Worksheet 5A • Booklet Template 5A/5B • Time Question Cards (FSD? activity only) • Clocks (FSD? activity only)

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different...?' activity within the lesson plan

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.	• 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?	• 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.	• 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?	• 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.	• 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?	• 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.	• 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?	• 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.	• 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?	• Slides • Worksheets 5A/5B/5C • Fruit and Veg Game Sheet A (FSD? activity only) • Fruit and Veg Game Sheet B (FSD? activity only)

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different...?' activity within the lesson plan

Multiplying and Dividing: Maths : Year 3 : Autumn Term

PlanBee

	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.	• 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?	• 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.	• 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?	• 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.	• 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?	• 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.	• 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?	• 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.	• Do children understand the trial and improvement method? • Can children use the trial and improvement method to solve problems? • Can children explain their reasoning?	• 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)

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different...?' activity within the lesson plan

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.	• 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?	• 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.	• 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?	• 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.	• 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?	• 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.	• Can children compare two fractions? • Can children order a given set of fractions? • Can children explain their reasoning?	• 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.	• 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?	• 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

NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different...?' activity within the lesson plan