Mathletics

NCETM Curriculum Prioritisation Alignment

Activities and Skill Quests

Years 1-2

June, 2023

Mathletics

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National Centre for Excellence in the Teaching of Mathematics

June 2023

Year 1

Autumn

Unit 1: Previous Reception Experiences and Counting Within 100

1. Pupils count within 100 in different ways	
Course Topic	**Activities Title**
Number and Place Value Review	How Many?
	Matching Numbers to 10
	Matching Numbers to 20
	Counting Up to 20
Number and Place Value to 50	Making Numbers Count
	Before, After and Between to 20
	More, Less or the Same to 20
	1 to 30
	Counting Forwards
	Odd or Even
Number and Place Value to 100	Going Up
	Going Down
	Making Big Numbers Count
	Counting on a 100 grid
	Number Line Order
	Counting by Twos
	Counting by Fives
	Counting by Tens
Comparing Numbers	Before, after & between to 100

Unit 2: Comparison of quantities and part-whole relationships

1. Pupils explain that items can be compared using length and height	
Course Topic	**Activities Title**
Length, Mass and Volume	Everyday Length
	Comparing Length
	Measuring Length with blocks

2. Pupils explain that items can be compared using weight/mass and volume/capacity	
Course Topic	**Activities Title**
Length, Mass and Volume	Which Holds More?
	Everyday Mass
	Filling Fast
	Comparing Volume
	How Full?

3. Pupils count a set of objects	
Course Topic	**Activities Title**
Number and Place Value Review	How Many?

4. Pupils compare sets of objects	
Course Topic	**Activities Title**
Number and Place Value Review	Compare Numbers to 20
Number and Place Value to 50	More, less or the same to 20

5. Pupils use equality and inequality symbols to compare sets of objects	
Course Topic	**Activities Title**
Number and Place Value Review	Compare Numbers to 20

6. Pupils use equality and inequality symbols to compare expressions	
Skill Quests	**Skills**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Number and Place Value Review	Compare Numbers to 20
Number and Place Value to 50	Compare Numbers to 50

7. Pupils explain what a whole is	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

8. Pupils explain that a whole can be split into parts	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

9. Pupils explain that a whole can represent a group of objects	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

10. Pupils identify a part of a whole group	
Course Topic	**Activities Title**
Fractions	Is it a Half?
	Doubles and Halves to 10
	Doubles and Halves to 20

11. Pupils explain what a part-whole model is	
Course Topic	Activities Title
Teacher directed	Teacher directed

12. Pupils use a part-whole model to represent a whole partitioned into two parts	
Course Topic	Activities Title
Teacher directed	Teacher directed

13. Pupils use a part-whole model to represent a whole partitioned into more than two parts	
Course Topic	Activities Title
Teacher directed	Teacher directed

Unit 3: Numbers 0 to 5

1. Pupils explain that numbers can represent how many objects there are in a set	
Course Topic	Activities Title
Numbers to 10	Count to 5
	How Many?

2. Pupils explain that ordinal numbers show a position and not a set of objects	
Course Topic	Activities Title
Numbers to 10	Ordinal Numbers

3. Pupils partition numbers one to five in different ways	
Course Topic	Activities Title
Teacher directed	Teacher directed

4. Pupils partition the numbers one to five in a systematic way	
Course Topic	Activities Title
Teacher directed	Teacher directed

5. Pupils find a missing part when one part and the whole is known	
Course Topic	Activities Title
Teacher directed	Teacher directed

6. Pupils show one more and one less than a number using representations. Pupils describe this accurately.	
Course Topic	Activities Title
Teacher directed	Teacher directed

7. Pupils use a bar model to represent a whole partitioned into two parts	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Unit 4: Recognise, compose, decompose and manipulate 2D and 3D shapes

1. Pupils compose pattern block images	
Course Topic	**Activities Title**
Patterns and Problem Solving	Complete the Pattern
Problem Solving	Simple Patterns
	Pattern Error
	Missing it!

2. Pupils copy, extend and develop repeating and radiating pattern block patterns	
Course Topic	**Activities Title**
Patterns and Problem Solving	Complete the Pattern
Problem Solving	Simple Patterns
	Pattern Error
	Missing it!

3. Pupils compose tangram images	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

4. Pupils investigate tetromino and pentomino arrangements	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

5. Pupils investigate ways that four cubes can be composed into different 3D models	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

6. Pupils explore, discuss and compare 3D shapes	
Course Topic	**Activities Title**
Properties of Shape and Position	Match the Solid
	Collect the Objects
	How Many Faces?
	How Many Edges?

Properties of Shapes	How Many Corners? (Vertices)
	Faces, Edges and Vertices

7. Pupils identify 2D shapes within 3D shapes

Course Topic	Activities Title
Properties of Shape	Relate Shapes and Solids

8. Pupils explore, discuss and compare 2D shapes

Course Topic	Activities Title
Properties of Shape and Position	Collect Simple Shapes Count Sides and Corners

9. Pupils explore, discuss and identify circles and shapes that are not circles from shape cut-outs

Course Topic	Activities Title
Teacher directed	Teacher directed

10. Pupils explore, discuss and identify triangles and shapes that are not triangles from shape cut-outs

Course Topic	Activities Title
Teacher directed	Teacher directed

11. Pupils explore, discuss and identify rectangles (including squares) from shape cut-outs

Course Topic	Activities Title
Teacher directed	Teacher directed

Spring

Unit 4: Recognise, compose, decompose and manipulate 2D and 3D shapes

1. Pupils compose pattern block images	
Course Topic	**Activities Title**
Patterns and Problem Solving	Complete the Pattern
Problem Solving	Simple Patterns
	Pattern Error
	Missing it!

2. Pupils copy, extend and develop repeating and radiating pattern block patterns	
Course Topic	**Activities Title**
Patterns and Problem Solving	Complete the Pattern
Problem Solving	Simple Patterns
	Pattern Error
	Missing it!

3. Pupils compose tangram images	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

4. Pupils investigate tetromino and pentomino arrangements	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

5. Pupils investigate ways that four cubes can be composed into different 3D models	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

6. Pupils explore, discuss and compare 3D shapes	
Course Topic	**Activities Title**
Properties of Shape and Position	Match the Solid
	Collect the Objects
	How Many Faces?
Properties of Shapes	How Many Edges?
	How Many Corners? (Vertices)
	Faces, Edges and Vertices

7. Pupils identify 2D shapes within 3D shapes	
Course Topic	**Activities Title**
Properties of Shape	Relate Shapes and Solids

8. Pupils explore, discuss and compare 2D shapes	
Course Topic	**Activities Title**
Properties of Shape and Position	Collect Simple Shapes
	Count Sides and Corners

9. Pupils explore, discuss and identify circles and shapes that are not circles from shape cut-outs	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

10. Pupils explore, discuss and identify triangles and shapes that are not triangles from shape cut-outs	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

11. Pupils explore, discuss and identify rectangles (including squares) from shape cut-outs	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Unit 5: Numbers 0 to 10

1. Pupils count a set of objects and match the spoken number to the written numeral and number name	
Course Topic	**Activities Title**
Numbers to 10	Count to 5
Number and Place Value Review	How Many?
	Matching Numbers to 10
	Matching Numbers to 20
Number and Place Value to 50	Reading Numbers to 30

2. Pupils represent the numbers 6 to 10 using a five and a bit structure	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

3. Pupils identify the whole and parts of the numbers 6 to 10 using the five and a bit structure	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

4. Pupils explore the numbers 6 to 10 using the part whole model and the five and a bit structure	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

5. Pupils explain where 6, 7, 8 and 9 lie on a number line	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

6. Pupils explain what odd and even numbers are and the difference between them	
Course Topic	**Activities Title**
Number and Place Value to 50	Odd or Even

7. Pupils explain how even and odd numbers can be partitioned	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

8. Pupils partition numbers 6 to 10 in different ways	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

9. Pupils partition the numbers 6 to 10 in a systematic way	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

10. Pupils identify a missing part when a whole is partitioned into two parts	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Unit 6: Additive structures

1. Pupils combine two or more parts to make a whole	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

2. Pupils explain that addends can be represented in any order. This is called the commutative law	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

3. Pupils explain that the = sign can be used to show that the whole and the sum of the parts are equal (1)	
Course Topic	**Activities Title**
Addition and Subtraction	Balance Numbers to 10
	Balance Numbers to 20

Course Topic	**Activities Title**
Teacher directed	Teacher directed

5. Pupils add parts to find the value of the whole and write the equation	
Course Topic	**Activities Title**
Operations with Number	Adding to 5
	Model Addition
	Adding to Ten
Addition and Subtraction	Adding to Make 5 and 10
	Addictive Addition
	Addition Facts
	Addition

6. Pupils find the missing addend in an equation	
Course Topic	**Activities Title**
Problem Solving	Add and Subtract Problems
	Adding to 10 Word Problems

7. Pupils explain how even and odd numbers can be partitioned	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

8. Pupils make addition and subtraction stories and write equations to match	
Course Topic	**Activities Title**
Problem Solving	Problems: Add and Subtract

9. Pupils represent 'first, then, now' stories with addition equations (1)	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

10. Pupils represent 'first, then, now' stories with addition equations (2)	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

11. Pupils represent 'first, then, now' stories with subtraction equations (1)

Course Topic	Activities Title
Teacher directed	Teacher directed

12. Pupils represent 'first, then, now' stories with subtraction equations (2)

Course Topic	Activities Title
Teacher directed	Teacher directed

13. Pupils represent different types of stories with subtraction calculations

Course Topic	Activities Title
Problem Solving	Problems: Add and Subtract

14. Pupils make addition and subtraction stories, writing equations to match

Course Topic	Activities Title
Problem Solving	Problems: Add and Subtract

15. Pupils work out the missing part of an addition story and equation if the other two parts are known

Course Topic	Activities Title
Problem Solving	Add and Subtract Problems
	Adding to 10 Word Problems

16. Pupils work out the missing part of a subtraction story and equation if the other two parts are known

Course Topic	Activities Title
Problem Solving	Add and Subtract Problems
	Adding to 10 Word Problems

17. Pupils explain that addition and subtraction are inverse operations (1)

Course Topic	Activities Title
Add and Subtract (1)	Fact Families: Add and Subtract

18. Pupils explain that addition and subtraction are inverse operations (2)

Course Topic	Activities Title
Add and Subtract (1)	Fact Families: Add and Subtract

19. Pupils use additive structures to think about addition and subtraction equations in different ways

Course Topic	Activities Title
Teacher directed	Teacher directed

Unit 7: Addition and subtraction facts within 10

1. Pupils explain that addition is commutative	
Course Topic	**Activities Title**
Add and Subtract (2)	Commutative Property of Addition

2. Pupils find pairs of numbers to 10	
Course Topic	**Activities Title**
Addition And Subtraction	Adding to make 5 and 10
	Addition Facts
	Balance Numbers to 10

3. Pupils add and subtract 1 from any number	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

4. Pupils explain what the difference is between consecutive numbers	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

5. Pupils explain what happens when 2 is added to or subtracted from odd and even numbers	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

6. Pupils explain what the difference is between consecutive odd and even numbers	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

7. Pupils explain what happens when zero is added to or subtracted from a number	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

8. Pupils explain what happens when a number is added to or subtracted from itself	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

9. Pupils double numbers and explain what doubling means	
Course Topic	**Activities Title**
Fractions	Doubles and Halves to 10

	Doubles and Halves to 20
	Doubles and Near Doubles

10. Pupils halve numbers and explain what halving means	
Course Topic	**Activities Title**
Fractions	Doubles and Halves to 10
	Doubles and Halves to 20

11. Pupils use knowledge of doubles and halves to calculate near doubles and halves	
Course Topic	**Activities Title**
Fractions	Doubles and Halves to 10
	Doubles and Halves to 20
	Doubles and Near Doubles

12. Pupils represent different types of stories with subtraction calculations	
Course Topic	**Activities Title**
Addition and Subtraction	Problems: Add and Subtract
Problem Solving	Add and Subtract Problems

13. Pupils use knowledge and strategies to add 5 and 3 and 6 and 3	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Summer

Unit 8: Numbers 0 to 20

1. Pupils explain that the digits in the numbers 11 to 19 express quantity	
Course Topic	**Activities Title**
Number and Place Value Review	Order Numbers to 20
	Compare Numbers to 20
	Matching Numbers to 10
	Matching Numbers to 20
	Counting Up to 20

2. Pupils explain that the digits in the numbers 11 to 19 express position on a number line	
Course Topic	**Activities Title**
Addition and Subtraction	All about Twenty

3. Pupils identify the quantity shown in a representation of numbers 11 to 19	
Course Topic	**Activities Title**
Number and Place Value Review	Compare Numbers to 20
	Matching Numbers to 20

4. Pupils use knowledge of '10 and a bit' to solve problems	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

5. Pupils use knowledge of '10 and a bit' to solve problems	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

6. Pupils explore odd and even numbers within 20	
Course Topic	**Activities Title**
Number and Place Value to 50	Odd or Even

7. Pupils double the numbers 6 to 9 and halve the result, explaining what doubling and halving is	
Course Topic	**Activities Title**
Number and Place Value to 50	Doubles and Halves to 10

8. Pupils use knowledge of addition facts within 10 to add within 20	
Course Topic	**Activities Title**
Addition and Subtraction	Adding to 5 and 10

Addictive Addition	
Addition Facts	
Addition	
Balance Numbers to 10	
Balance Numbers to 20	

9. Pupils use knowledge of subtraction facts within 10 to subtract within 20

Course Topic	Activities Title
Addition and Subtraction	Subtracting from Ten
	Subtraction facts to 18
	Simple Subtraction

10. Pupils use knowledge of addition and subtraction facts within 10 to add and subtract within 20

Course Topic	Activities Title
Addition and Subtraction	All about Twenty
	Problems: Add and Subtract

11. Pupils measure one object with different non-standard measures and record outcomes

Course Topic	Activities Title
Length, Mass and Volume	Measuring length with blocks

12. Pupils measure items using individual cm cubes (Dienes)

Course Topic	Activities Title
Length, Mass and Volume	Measuring length with blocks

13. Pupils measure length from zero cm using a ruler

Course Topic	Activities Title
Length, Mass and Volume	How Long is that?
	Measure to the nearest half centimetre

14. Pupils estimate length in cm

Course Topic	Activities Title
Teacher directed	Teacher directed

15. Pupils estimate length, measure length and record these values in a table

Course Topic	Activities Title
Teacher directed	Teacher directed

Unit 9: Unitising and coin recognition

1. Pupils count efficiently in groups of two	
Course Topic	**Activities Title**
Number and Place Value to 100	Counting by Twos

2. Pupils count efficiently in groups of ten	
Course Topic	**Activities Title**
Number and Place Value to 100	Counting by Tens

3. Pupils count efficiently in groups of five	
Course Topic	**Activities Title**
Number and Place Value to 100	Counting by Fives

4. Pupils count efficiently by counting in groups of two, five and ten	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

5. Pupils explain the value of a 1p coin in pence	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

6. Pupils recognise and explain the value of 2p, 5p and 10p coins	
Course Topic	**Activities Title**
Time and Money	Everyday Money

7. Pupils explain that a single coin can be worth several pennies	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

8. Pupils use knowledge of the value of coins to solve problems	
Course Topic	**Activities Title**
Time and Money	Who has the money

9. Pupils calculate the total value of the coins in a set of 2p coins	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

10. Pupils calculate the total value of the coins in a set of 5p coins	
Course Topic	Activities Title
Teacher directed	Teacher directed

11. Pupils calculate the total value of the coins in a set of 10p coins	
Course Topic	Activities Title
Teacher directed	Teacher directed

12. Pupils compare sets of 2p, 5p and 10p coins	
Course Topic	Activities Title
Teacher directed	Teacher directed

13. Pupils relate what they have learnt to a real-life context	
Course Topic	Activities Title
Time and Money	Everyday Money

14. Pupils work out how many coins are needed to make a value of 10p	
Course Topic	Activities Title
Teacher directed	Teacher directed

15. Pupils work out how many coins are needed to make a total value of 20p	
Course Topic	Activities Title
Teacher directed	Teacher directed

Unit 10: Position and direction

1. Describe position, direction and movement, including whole, half, quarter and three-quarter turns.	
Course Topic	Activities Title
Properties of Shape and Position	Flip, Slide, Turn
	Where is it?
	Left or Right?
Properties of Shape and Position	Following Directions

Unit 11: Time

1. Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]	
Course Topic	Activities Title
Time and Money	Days of the Week
	Weekdays and Weekends

	Months: Before and After
	Months of the Year

2. Recognise and use language relating to dates, including days of the week, weeks, months and years

Course Topic	Activities Title
Time and Money	Days of the Week
	Weekdays and Weekends
	Months: Before and After
	Months of the Year

3. Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

Course Topic	Activities Title
Time and Money	Hour Times
	Tell Times to the Half Hour

Year 2

Autumn

Unit 1: Numbers 10–100

1. Pupils explain that one ten is equivalent to ten ones	
Skill Quests	**Skills**
Place Values of 2-digit numbers	Tens and Ones
	Partitioning Tens and ones
	Non-Standard Partitioning of tens and ones
Course Topic	**Activities Title**
Number and Place Value to 100 (1)	Re-partition Two-digit Numbers

2. Pupils represent multiples of ten using their numerals	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

3. Pupils represent multiples of ten using their numerals and names	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

4. Pupils represent multiples of ten in an expression or an equation	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

5. Pupils estimate the position of multiples of ten on a 0-100 number line	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

6. Pupils explain what happens when you add and subtract ten to a multiple of ten	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

7. Pupils use knowledge of facts and unitising to add and subtract multiples of ten	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

8. Pupils add and subtract multiples of ten	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

9. Pupils explore the counting sequence for counting to 100 and beyond	
Skill Quests	**Skills**
Count in number sequences	Counting in 2s
	Counting in 5s
	Counting in 10s
	Counting in 2s, 5s and 10s
	Counting in 3s
	Counting starting on any number
Course Topic	**Activities Title**
Number and Place Value Counting	Count by Twos
	Count by Tens
	Count by Fives
	Count by 2s,5s and 10s
	Skip Counting
	Counting on a 100 grid
	Count Forward Patterns
	Count Backward Patterns
Number and Place Value to 100 (1)	Before, After and Between to 100

10. Pupils count a large group of objects by counting groups of tens and the extra ones	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

11. Pupils count a large group of objects by using knowledge of unitising by counting tens and ones	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

12. Pupils represent a number from 20-99 in different ways	
Skill Quests	**Skills**
Identify, represent and estimate numbers	Numbers to 100
	Ordinal numbers
Read and write numbers to 100	Reading and writing numbers to 100
Course Topic	**Activities Title**
Number and Place Value to 100 (1)	Make Big Numbers Count
	Making Big Numbers Count
	Place Value 1
	Repartition Two-digit Numbers

13. Pupils explain and mark the position of numbers 20-99 on a number line	
Course Topic	**Activities Title**
Number and Place Value to 100 (1)	Number Line Order

14. Pupils explain that numbers 20-99 can be represented as a length	
Course Topic	**Activities Title**
Length, Mass and Volume	Ordering Lengths

15. Pupils compare two, two-digit numbers	
Skill Quests	**Skills**
Compare and order numbers up to 100	Comparing and ordering collections to 20
	Comparing and ordering numbers to 100
Course Topic	**Activities Title**
Number and Place Value to 100 (1)	Compare Numbers to 100
	Arranging Numbers

16. Pupils partition a two-digit number into tens and ones	
Skill Quests	**Skills**
Place Value of 2-digit numbers	Partitioning tens and ones
Course Topic	**Activities Title**
Number and Place Value to 100 (1)	Make Big Numbers Count
	Making Big Numbers Count
	Repartition Two-Digit Numbers
	Place Value 1

17. Pupils add two, two-digit numbers by partitioning into tens and ones	
Skill Quests	**Skills**
Add and subtract numbers	Add two 2-digit numbers
Course Topic	**Activities Title**
Add and Subtract (2)	Adding to 2 -digit numbers
	Magic Mental Addition

Unit 2: Calculations within 20

1. Pupils add three addends	
Skill Quests	**Skills**
Add and subtract numbers	Adding 1-digit numbers
Course Topic	**Activities Title**
Add and Subtract (1)	Add 3 1-digit numbers
	Add 3 Single Digit Numbers
	Add 3 numbers using bonds to 10

2. Pupils use a 'First... Then... Now" story to add 3 addends	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

3. Pupils explain that addends can be added in any order	
Skill Quests	**Skills**
Commutativity in addition	Commutativity in addition
Course Topic	**Activities Title**
Add and Subtract (2)	Commutative Property of Addition

4. Pupils add 3 addends efficiently	
Skill Quests	**Skills**
Add and subtract numbers	Adding 1-digit numbers
Course Topic	**Activities Title**
Add and Subtract (1)	Add 3 1-digit numbers
	Add 3 Single Digit Numbers
	Add 3 numbers using bonds to 10

5. Pupils add 3 addends efficiently by finding two addends that total 10	
Skill Quests	**Skills**
Add and subtract numbers	Adding 1-digit numbers
Course Topic	**Activities Title**
Add and Subtract (1)	Add 3 numbers using bonds to 10

6. Pupils add two numbers that bridge through 10	
Skill Quests	**Skills**
Add and subtract numbers	Adding 1-digit numbers
	Adding 1-digit and 2-digit numbers
	Add two 2-digit numbers
	Using mental strategies to add and subtract
Course Topic	**Activities Title**
Add and Subtract (1)	Balance Additions
Add and Subtract (2)	Missing Numbers

7. Pupils subtract two numbers that bridge through 10	
Skill Quests	**Skills**
Add and subtract numbers	Subtracting 1-digit and 2-digit numbers
	Subtracting two 2-digit numbers
	Using mental strategies to add and subtract
Course Topic	**Activities Title**
Add and Subtract (1)	Simple Subtraction

8. Pupils compare numbers and describe how many more or less there are in each set	
Skill Quests	**Skills**
Problem solving: addition/subtraction	Exploring change in quantity
Addition and Subtraction facts	One more and one less within 100
Course Topic	**Activities Title**
Number and Place Value to 100 (1)	Compare numbers to 100

9. Pupils calculate the difference	
Skill Quests	**Skills**
Problem solving: addition/subtraction	Addition and subtraction problems within 20
	Addition and subtraction problems within 100
Rules of addition and subtraction	Relationships between addition and subtraction
Course Topic	**Activities Title**
Add and Subtract (1)	All about Twenty Simple Subtraction Fact Families: Add and subtract
Add and Subtract (2)	Problems: Add and Subtract
	Magic Mental Subtraction
	Repartition to Subtract
	Bar Model Problems (1)

10. Pupils use knowledge of subtraction to solve problems in a range of contexts	
Skill Quests	**Skills**
Problem solving: addition/subtraction	Addition and subtraction problems within 20
	Addition and subtraction problems within 100
Add and subtract numbers	Using the bar model within 20
Rules of addition and subtraction	Relationships between addition and subtraction
Course Topic	**Activities Title**
Add and Subtract (2)	Problems: Add and Subtract
	Bar Model Problems (1)

11. Pupils explain what the difference is between consecutive numbers	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

12. Pupils calculate difference when information is presented in a pictogram	
Skill Quests	**Skills**
Interpret and construct graphs	Pictograms
Course Topic	**Activities Title**
Statistics	Picture Graphs

13. Pupils calculate difference when information is presented in a bar chart	
Skill Quests	**Skills**
Interpret and construct graphs	Block diagrams
Answer questions about data	Answering questions by counting
Course Topic	**Activities Title**
Statistics	Column Graphs
	Read from a Column Graph

Unit 3: Fluently add and subtract within 10

1. Pupils demonstrate their fluency of addition and subtraction within ten	
Skill Quests	**Skills**
Problem solving: addition /subtraction	Addition and subtraction problems within 20
	Addition and subtraction problems within 100
	Exploring change in quantity
Addition and subtraction facts	Number bonds to 20
	Doubles and near doubles
	One more and one less within 100
	Number bonds to 100
	Adding zero to a number
	Subtracting zero from a number
Course Topic	**Activities Title**
Operations With Number	Adding to 5
	Subtracting from 5
	Model Addition
	Model Subtraction
	Share the Treasure
	Adding to Ten
	Subtracting from Ten
	Balance Numbers to 10
	All About Ten
	Adding to make 5
	Adding to make 10
	Doubles and Halves to 10
	Adding Word Problems
Addition and Subtraction	Adding to make 5 and 10
	Addition Facts
	Subtracting from Ten
	Balance Numbers to 10

2. Pupils practise addition and subtraction strategies as required	
Skill Quests	**Skills**
Add and subtract numbers	Adding 1-digit numbers
	Adding 1-digit and 2-digit numbers
	Adding 2-digit numbers and 10s

Course Topic	Activities Title
	Add two 2-digit numbers
	Subtracting 1-digit and 2-digit numbers
	Subtracting 2-digit numbers and 10s
	Subtracting two 2-digit numbers
	Introducing vertical addition and subtraction
	Using mental strategies to add and subtract
	Using the bar model within 20
Commutativity in addition	Commutativity in addition
Rules of addition and subtraction	Relationships between addition and subtraction
Course Topic	**Activities Title**
Add and Subtract (1)	1 more, 2 less
	1 more, 10 less
	All about 20
	Balance Additions
	Simple Subtraction
	Fact Families
	Add 3 1-digit numbers
	Add 3 Single Digit Numbers
	Add 3 numbers using bonds to 10
	Complements to 10,20,50
Add and Subtract (2)	Problems: Add and Subtract
	Missing Numbers
	Magic Mental Addition
	Adding to 2-digit numbers
	Magic Mental Subtraction
	Repartition to Subtract
	Bar Model Problems (1)
	Commutative Property of Addition

Unit 4: Addition and subtraction of two-digit numbers (1)

1. Pupils add and subtract one to and one from a two-digit number	
Skill Quests	**Skills**
Addition and subtraction facts	One more and one less within 100
Course Topic	**Activities Title**
Add and Subtract (1)	1 more, 2 less
	1 more, 10 less

2. Pupils add and subtract one to and from a two-digit number that crosses a tens boundary	
Skill Quests	**Skills**
Addition and subtraction facts	One more and one less within 100
Course Topic	**Activities Title**
Add and Subtract (1)	1 more, 2 less
	1 more, 10 less

3. Pupils add and subtract one from any two-digit number	
Skill Quests	**Skills**
Addition and subtraction facts	One more and one less within 100
Course Topic	**Activities Title**
Add and Subtract (1)	1 more, 2 less
	1 more, 10 less

4. Pupils use number facts to add a single-digit number to a two-digit number	
Skill Quests	**Skills**
Add and subtract numbers	Adding 1-digit and 2-digit numbers
Course Topic	**Activities Title**
Add and Subtract (2)	Adding to 2-digit numbers

5. Pupils use number facts to subtract a single-digit number from a two-digit number	
Skill Quests	**Skills**
Add and subtract numbers	Subtracting 1-digit and 2-digit numbers
Course Topic	**Activities Title**
Add and Subtract (1)	Simple Subtraction

6. Pupils use a part-part-whole model to represent addition and subtraction	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

7. Pupils use number bonds to ten to add a single-digit number to a two-digit number	
Skill Quests	**Skills**
Add and subtract numbers	Adding 1-digit and 2-digit numbers

8. Pupils use number bonds to ten to subtract a single-digit number from a two-digit number	
Skill Quests	**Skills**
Add and subtract numbers	Subtracting 1-digit and 2-digit numbers

9. Pupils use knowledge of 'make ten' to add a one-digit number to a two-digit number	
Skill Quests	**Skills**
Add and subtract numbers	Adding 1-digit and 2-digit numbers

10. Pupils use knowledge of 'make ten' to subtract a multiple of ten or a single-digit from a two-digit number	
Skill Quests	**Skills**
Add and subtract numbers	Adding 1-digit and 2-digit numbers

11. Pupils solve problems using knowledge of addition and subtraction	
Skill Quests	**Skills**
Problem solving: addition/subtraction	Addition and subtraction problems within 20
	Addition and subtraction problems within 100
Add and subtract numbers	Using the bar model within 20
Rules of addition and subtraction	Relationships between addition and subtraction
Course Topic	**Activities Title**
Add and Subtract (2)	Problems: Add and Subtract
	Bar Model Problems (1)
Problem Solving	Partition Puzzles
	Adding to 10 Word Problems
	Add and Subtract Problems
	Word Problems: Add and Subtract
	Missing Numbers

12. Pupils find ten more or ten less than a two-digit number (1)	
Course Topic	**Activities Title**
Add and Subtract (1)	1 more, 10 less

13. Pupils find ten more or ten less than a two-digit number (2)	
Course Topic	**Activities Title**
Add and Subtract (1)	1 more, 2 less
	1 more, 10 less

14. Pupils add and subtract ten to/from a two-digit number	
Course Topic	**Activities Title**
Add and Subtract (1)	1 more, 2 less
	1 more, 10 less

15. Pupils explain the patterns when adding and subtracting ten	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

16. Pupils use knowledge of adding and subtracting ten to solve problems	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

17. Pupils use number facts to add a multiple of ten to a two-digit number	
Skill Quests	**Skills**
Add and subtract numbers	Adding 2-digit numbers and 10s

18. Pupils use number facts to subtract a multiple of ten from a two-digit number	
Skill Quests	**Skills**
Add and subtract numbers	Subtracting 2-digit numbers and 10s

19. Pupils partition a two-digit number into parts in different ways (two and three parts)	
Course Topic	**Activities Title**
Add and Subtract (2)	Repartition to Subtract

20. Pupils use knowledge of adding and subtracting multiples of ten to solve problems	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Unit 5: Introduction to multiplication

1. Pupils explain that objects can be grouped in different ways	
Skill Quests	**Skills**
Multiplication and division problems	Using arrays
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
	Groups of Two
	Groups of Five
	Arrays
	Arrays 1
	Arrays 2
	Fill the Jars

2. Pupils describe how objects have been grouped	
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
	Groups of Two
	Groups of Five
	Arrays
	Arrays 1
	Arrays 2
	Fill the Jars

3. Pupils represent equal groups as repeated addition	
Skill Quests	**Skills**
Multiplication and division problems	Adding to multiply
Course Topic	**Activities Title**
Multiplication and Division	Frog Jump Multiplication

4. Pupils represent equal groups as repeated addition and multiplication	
Skill Quests	**Skills**
Multiplication and division problems	Adding to multiply

5. Pupils represent equal groups as multiplication	
Skill Quests	**Skills**
Multiplication and division problems	Adding to multiply
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
	Groups of Two
	Groups of Five
	Arrays
	Arrays 1
	Arrays 2
	Fill the Jars

6. Pupils explain and represent multiplication when a group contains zero or one items	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

7. Pupils identify and explain each part of a multiplication equation	
Skill Quests	**Skills**
Create mathematical sentences	Creating mathematical sentences

8. Pupils use knowledge of multiplication to calculate the product	
Skill Quests	**Skills**
Multiplication and division facts	2 times-tables
	5 times-tables
	10 times-tables
	Multiplying by 2s, 5s and 10s
Rules of multiplication	The commutative law of multiplication
Multiplication and division problems	Using arrays
	Solving problems using multiplication and division
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten

	Groups of Two
	Groups of Five
	Arrays
	Arrays 1
	Arrays 2
	Multiplication Turnaround
	Frog Jump Multiplication
	Fill the Jars

9. Pupils represent the two times table in different ways	
Skill Quests	**Skills**
Multiplication and division facts	2 times-tables
	Multiplying by 2s, 5s and 10s
	Dividing by 2
	Dividing by 2s, 5s and 10s
	Odd and even numbers
Course Topic	**Activities Title**
Multiplication and Division	Groups of Two
	Dividing Twos

10. Pupils use knowledge of the two times table to solve problems	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

11. Pupils explain the relationship between adjacent multiples of two	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

12. Pupils explain that factor pairs can be written in any order	
Skill Quests	**Skills**
Rules of multiplication	The commutative law of multiplication
Course Topic	**Activities Title**
Multiplication and Division	Multiplication Turnaround

13. Pupils represent counting in tens as the ten times table	
Skill Quests	**Skills**
Multiplication and division facts	10 times-tables
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
Number and Place Value Counting	Count by Tens

14. Pupils represent the ten times table in different ways	
Skill Quests	**Skills**
Multiplication and division facts	10 times-tables
	Dividing by 10
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
	Dividing Tens

15. Pupils explain the relationship between adjacent multiples of ten	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

16. Pupils represent counting in fives as the five times table	
Skill Quests	**Skills**
Multiplication and division facts	5 times-tables
Course Topic	**Activities Title**
Multiplication and Division	Groups of Fives
Number and Place Value Counting	Count by Fives

17. Pupils represent the five times table in different ways	
Skill Quests	**Skills**
Multiplication and division facts	Dividing by 5
Course Topic	**Activities Title**
Multiplication and Division	Groups of Five
	Dividing Five

18. Pupils explain the relationship between adjacent multiples of five	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

19. Pupils explain how groups of five and ten are related	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

20. Pupils explain the relationship between multiples of five and ten	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

21. Pupils use knowledge of the relationships between the five and ten times tables to solve problems	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

22. Pupils explain how a factor of zero or one affect the product	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

23. Pupils represent multiplication equations in different ways	
Skill Quests	**Skills**
Multiplication and division problems	Using arrays
	Adding to multiply
	Solving problems using multiplication and division
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
	Groups of Two
	Groups of Five
	Arrays
	Arrays Dividing Twos 1
	Arrays 2
	Multiplication Turnarounds
	Dividing Tens
	Dividing Fives
	Frog Jump Multiplication
	Fill the Jars
Problem Solving	Problems: Multiply and Divide

24. Pupils use knowledge of the two, five and ten times tables to solve problems (1)	
Skill Quests	**Skills**
Multiplication and division problems	Solving problems using multiplication and division
Course Topic	**Activities Title**
Multiplication and Division	Fill the Jars

25. Pupils use knowledge of the two, five and ten times tables to solve problems (2)	
Skill Quests	**Skills**
Multiplication and division problems	Solving problems using multiplication and division
Course Topic	**Activities Title**
Multiplication and Division	Fill the Jars

26. Pupils explain what each factor represents in a multiplication story	
Skill Quests	**Skills**
Create mathematical sentences	Creating mathematical sentences

27. Pupils explain what each factor represents in a multiplication story when one of the factors is one	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

28. Pupils explain how a multiplication equation with two as a factor is related to doubling	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

29. Pupils double two-digit numbers	
Course Topic	**Activities Title**
Number and Place Value to 100 (2)	Doubles and Halves to 20

30. Pupils multiply efficiently when one of the factors is two	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

31. Pupils explain how halving and doubling are related	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

32. Pupils explain the relationship between factors and products	
Skill Quests	**Skills**
Rules of multiplication	Relationship between multiplication and division

33. Pupils halve two-digit numbers	
Skill Quests	**Skills**
Number and Place Value to 100 (2)	Doubles and Halves to 20

34. Pupils use knowledge of doubling, halving and the two times table to solve problems	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Spring

Unit 5 cont. Introduction to multiplication

1. Pupils explain that objects can be grouped in different ways	
Skill Quests	**Skills**
Multiplication and division problems	Using arrays
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
	Groups of Two
	Groups of Five
	Arrays
	Arrays 1
	Arrays 2
	Fill the Jars

2. Pupils describe how objects have been grouped	
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
	Groups of Two
	Groups of Five
	Arrays
	Arrays 1
	Arrays 2
	Fill the Jars

3. Pupils represent equal groups as repeated addition	
Skill Quests	**Skills**
Multiplication and division problems	Adding to multiply
Course Topic	**Activities Title**
Multiplication and Division	Frog Jump Multiplication

4. Pupils represent equal groups as repeated addition and multiplication	
Skill Quests	**Skills**
Multiplication and division problems	Adding to multiply

5. Pupils represent equal groups as multiplication	
Skill Quests	**Skills**
Multiplication and division problems	Adding to multiply
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
	Groups of Two

	Groups of Five
	Arrays
	Arrays 1
	Arrays 2
	Fill the Jars

6. Pupils explain and represent multiplication when a group contains zero or one items

Course Topic	Activities Title
Teacher directed	Teacher directed

7. Pupils identify and explain each part of a multiplication equation

Skill Quests	Skills
Create mathematical sentences	Creating mathematical sentences

8. Pupils use knowledge of multiplication to calculate the product

Skill Quests	Skills
Multiplication and division facts	2 times-tables
	5 times-tables
	10 times-tables
	Multiplying by 2s, 5s and 10s
Rules of multiplication	The commutative law of multiplication
Multiplication and division problems	Using arrays
	Solving problems using multiplication and division

Course Topic	Activities Title
Multiplication and Division	Groups of Ten
	Groups of Two
	Groups of Five
	Arrays
	Arrays 1
	Arrays 2
	Multiplication Turnaround
	Frog Jump Multiplication
	Fill the Jars

9. Pupils represent the two times table in different ways

Skill Quests	Skills
Multiplication and division facts	2 times-tables
	Multiplying by 2s, 5s and 10s
	Dividing by 2
	Dividing by 2s, 5s and 10s
	Odd and even numbers

Course Topic	Activities Title
Multiplication and Division	Groups of Two
	Dividing Twos

10. Pupils use knowledge of the two times table to solve problems

Course Topic	Activities Title
Teacher directed	Teacher directed

11. Pupils explain the relationship between adjacent multiples of two

Course Topic	Activities Title
Teacher directed	Teacher directed

12. Pupils explain that factor pairs can be written in any order

Skill Quests	Skills
Rules of multiplication	The commutative law of multiplication
Course Topic	**Activities Title**
Multiplication and Division	Multiplication Turnaround

13. Pupils represent counting in tens as the ten times table

Skill Quests	Skills
Multiplication and division facts	10 times-tables
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
Number and Place Value Counting	Count by Tens

14. Pupils represent the ten times table in different ways

Skill Quests	Skills
Multiplication and division facts	10 times-tables
	Dividing by 10
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
	Dividing Tens

15. Pupils explain the relationship between adjacent multiples of ten

Course Topic	Activities Title
Teacher directed	Teacher directed

16. Pupils represent counting in fives as the five times table

Skill Quests	Skills
Multiplication and division facts	5 times-tables
Course Topic	**Activities Title**
Multiplication and Division	Groups of Fives
Number and Place Value Counting	Count by Fives

17. Pupils represent the five times table in different ways	
Skill Quests	**Skills**
Multiplication and division facts	Dividing by 5
Course Topic	**Activities Title**
Multiplication and Division	Groups of Five
	Dividing Five

18. Pupils explain the relationship between adjacent multiples of five	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

19. Pupils explain how groups of five and ten are related	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

20. Pupils explain the relationship between multiples of five and ten	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

21. Pupils use knowledge of the relationships between the five and ten times tables to solve problems	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

22. Pupils explain how a factor of zero or one affect the product	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

23. Pupils represent multiplication equations in different ways	
Skill Quests	**Skills**
Multiplication and division problems	Using arrays
	Adding to multiply
	Solving problems using multiplication and division
Course Topic	**Activities Title**
Multiplication and Division	Groups of Ten
	Groups of Two
	Groups of Five
	Arrays
	Arrays 1
	Arrays 2
	Multiplication Turnarounds
	Dividing Tens

	Dividing Twos
	Dividing Fives
	Frog Jump Multiplication
	Fill the Jars
Problem Solving	Problems: Multiply and Divide

24. Pupils use knowledge of the two, five and ten times tables to solve problems (1)	
Skill Quests	**Skills**
Multiplication and division problems	Solving problems using multiplication and division
Course Topic	**Activities Title**
Multiplication and Division	Fill the Jars

25. Pupils use knowledge of the two, five and ten times tables to solve problems (2)	
Skill Quests	**Skills**
Multiplication and division problems	Solving problems using multiplication and division
Course Topic	**Activities Title**
Multiplication and Division	Fill the Jars

26. Pupils explain what each factor represents in a multiplication story	
Skill Quests	**Skills**
Create mathematical sentences	Creating mathematical sentences

27. Pupils explain what each factor represents in a multiplication story when one of the factors is one	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

28. Pupils explain how a multiplication equation with two as a factor is related to doubling	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

29. Pupils double two-digit numbers	
Course Topic	**Activities Title**
Number and Place Value to 100 (2)	Doubles and Halves to 20

30. Pupils multiply efficiently when one of the factors is two	
Course Topic	Activities Title
Teacher directed	Teacher directed

31, Pupils explain how halving and doubling are related	
Course Topic	Activities Title
Teacher directed	Teacher directed

32. Pupils explain the relationship between factors and products	
Skill Quests	Skills
Rules of multiplication	Relationship between multiplication and division

33. Pupils halve two-digit numbers	
Course Topic	Activities Title
Number and Place Value to 100 (2)	Doubles and Halves to 20

34. Pupils use knowledge of doubling, halving and the two times table to solve problems	
Course Topic	Activities Title
Teacher directed	Teacher directed

Unit 6: Introduction to division structures

1. Pupils explain that objects can be grouped equally	
Course Topic	Activities Title
Multiplication and Division	Groups of Ten
	Groups of Two
	Groups of Five
	Fill the Jars

2. Pupils identify and explain when objects cannot be grouped equally	
Course Topic	Activities Title
Teacher directed	Teacher directed

3. Pupils explain the relationship between division expressions and division stories	
Skill Quests	Skills
Create mathematical sentences	Creating mathematical sentences

4. Pupils calculate the number of equal groups in a division story

Skill Quests	Skills
Multiplication and division problems	Solving problems using multiplication and division

Course Topic	Activities Title
Problem Solving	Problems: Multiply and Divide

5. Pupils use their knowledge of skip counting and division to solve problems relating to measure

Course Topic	Activities Title
Teacher directed	Teacher directed

6. Pupils skip count using the divisor to find the quotient

Course Topic	Activities Title
Teacher directed	Teacher directed

7. Pupils use their knowledge of division to solve problems

Skill Quests	Skills
Multiplication and division problems	Solving problems using multiplication and division

Course Topic	Activities Title
Multiplication and Division	Fill the Jars
Problem Solving	Problems: Multiply and Divide

8. Pupils explain that objects can be shared equally

Skill Quests	Skills
Multiplication and division facts	Dividing by 2
	Dividing by 5
	Dividing by 10
	Dividing by 2s, 5s and 10s

Course Topic	Activities Title
Multiplication and Division	Fill the Jars

9. Pupils use skip counting to solve a sharing problem

Course Topic	Activities Title
Teacher directed	Teacher directed

10. Pupils solve a variety of division problems, explaining their understanding

Skill Quests	Skills
Multiplication and division problems	Solving problems using multiplication and division

Course Topic	Activities Title
Multiplication and Division	Fill the Jars
Problem Solving	Problems: Multiply and Divide

Unit 7: Shape

1. Pupils learn that a polygon is a 2D shape with straight sides that meet at vertices	
Skill Quests	**Skills**
2D shapes	Recognising 2D shapes
Course Topic	**Activities Title**
Properties of Shape	Collect the Shapes
	How many corners?
	Count sides and corners

2. Pupils describe polygons and find different ways to sort them	
Skill Quests	**Skills**
Compare and sort 2D and 3D shapes	Sorting 2D shapes
	Comparing 2D shapes
Course Topic	**Activities Title**
Properties of Shape	Collect the Shapes
	How many corners?
	Count sides and corners

3. Pupils learn that polygons can be sorted and named according to the number of sides and vertices	
Skill Quests	**Skills**
Compare and sort 2D and 3D shapes	Sorting 2D shapes
	Comparing 2D shapes
Course Topic	**Activities Title**
Properties of Shape	Collect the Shapes
	How many corners?
	Count sides and corners

4. Pupils discuss, and compare by direct comparison, the shape and size of polygons	
Skill Quests	**Skills**
Compare and sort 2D and 3D shapes	Sorting 2D shapes
	Comparing 2D shapes
Course Topic	**Activities Title**
Properties of Shape	Collect the Shapes
	How many corners?
	Count sides and corners

5. Pupils discuss, and compare by direct comparison, the vertices of polygons	
Skill Quests	**Skills**
Compare and sort 2D and 3D shapes	Sorting 2D shapes
	Comparing 2D shapes

Course Topic	Activities Title
Properties of Shape	Collect the Shapes
	How many corners?
	Count sides and corners

6. Pupils investigate how polygons can be joined and folded to form 3-dimensional shapes	
Skill Quests	Skills
Identify 2D shapes on 3D shapes	Identifying 3D shapes in the environment

7. Pupils describe 3-dimensional shapes and find different ways to sort them	
Skill Quests	Skills
3D shapes	Introducing spheres
	Introducing cubes
	Introducing cylinders
	Introducing prisms
	Introducing cones
	Introducing pyramids
	Describing the properties of 3D shapes
Compare and sort 2D and 3D shapes	Sorting 3D shapes
Course Topic	Activities Title
Properties of Shape	Faces, Edges and Vertices
	How Many Faces?
	Symmetry

8. Pupils discuss, and compare by direct comparison, the shape and size of 3-dimensional shapes	
Skill Quests	Skills
3D shapes	Describing the properties of 3D shapes
Compare and sort 2D and 3D shapes	Comparing 3D shapes
Course Topic	Activities Title
Properties of Shape	Collect the Objects
	Faces, Edges and Vertices
	How Many Faces?
	Symmetry

Unit 8: Addition and Subtraction of two-digit numbers (2)

1. Pupils explain strategies used to add	
Course Topic	Activities Title
Teacher directed	Teacher directed

2. Pupils add a two-digit number to a two-digit number	
Course Topic	Activities Title
Add and Subtract (2)	Adding to 2-digit numbers

3. Pupils add a two-digit number to a two-digit number when not crossing ten (i)	
Course Topic	Activities Title
Add and Subtract (2)	Adding to 2-digit numbers

4. Pupils add a two-digit number to a two-digit number when not crossing ten (ii)	
Course Topic	Activities Title
Add and Subtract (2)	Adding to 2-digit numbers

5. Pupils add a two-digit number to a two-digit number when crossing ten	
Course Topic	Activities Title
Teacher directed	Teacher directed

6. Pupils explain strategies used to subtract	
Course Topic	Activities Title
Teacher directed	Teacher directed

7. Pupils subtract a two-digit number from a two-digit number	
Course Topic	Activities Title
Teacher directed	Teacher directed

8. Pupils partition the subtrahend to help with subtraction	
Course Topic	Activities Title
Add and Subtract (2)	Repartition to subtract

9. Pupils subtract a two-digit number from a two-digit number when not crossing ten (i)	
Course Topic	Activities Title
Add and Subtract (2)	Magic Mental Subtraction

10. Pupils subtract a two-digit number from a two-digit number when crossing ten	
Course Topic	Activities Title
Add and Subtract (2)	Magic Mental Subtraction

11. Pupils subtract efficiently using knowledge of two-digit numbers	
Course Topic	**Activities Title**
Add and Subtract (2)	Magic Mental Subtraction
	Bar Model Problems (1)

Summer

Unit 9: Money

<table>
<tr><td colspan="2">1. Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value</td></tr>
<tr><td>Skill Quests</td><td>Skills</td></tr>
<tr><td>Combinations of coins</td><td>Combinations of money</td></tr>
<tr><td>Add and subtract money</td><td>Adding and subtracting money</td></tr>
<tr><td>Course Topic</td><td>Activities Title</td></tr>
<tr><td>Time and Money</td><td>Everyday money</td></tr>
<tr><td></td><td>Money – who's got it?</td></tr>
</table>

<table>
<tr><td colspan="2">2. Find different combinations of coins that equal the same amounts of money</td></tr>
<tr><td>Skill Quests</td><td>Skills</td></tr>
<tr><td>Combinations of coins</td><td>Combinations of money</td></tr>
</table>

<table>
<tr><td colspan="2">3. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</td></tr>
<tr><td>Skill Quests</td><td>Skills</td></tr>
<tr><td>Add and subtract money</td><td>Adding and subtracting money</td></tr>
<tr><td>Course Topic</td><td>Activities Title</td></tr>
<tr><td>Time and Money</td><td>How much change?</td></tr>
</table>

Unit 10: Fractions

<table>
<tr><td colspan="2">1. Pupils identify whether something has or has not been split into equal parts</td></tr>
<tr><td>Course Topic</td><td>Activities Title</td></tr>
<tr><td>Fractions</td><td>Divide Into Equal Groups</td></tr>
</table>

<table>
<tr><td colspan="2">2. Pupils name the fraction 'one-half' in relation to a fraction of a length, shape or set of objects</td></tr>
<tr><td>Skill Quests</td><td>Skills</td></tr>
<tr><td>Fractions</td><td>Halves</td></tr>
<tr><td></td><td>Halves and quarters</td></tr>
<tr><td>Course Topic</td><td>Activities Title</td></tr>
<tr><td>Fractions</td><td>Shade Fractions</td></tr>
<tr><td></td><td>Halves and Quarters</td></tr>
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<table>
<tr><td colspan="2">3. Pupils name the fraction 'one-quarter' in relation to a fraction of a length, shape or set of objects</td></tr>
<tr><td>Skill Quests</td><td>Skills</td></tr>
<tr><td>Fractions</td><td>Quarters</td></tr>
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Course Topic	Activities Title
	Halves and quarters
	Finding quarters by halving
Fractions	Shade Fractions
	Halves and Quarters

4. Pupils name the fraction 'one-third' in relation to a fraction of a length, shape or set of objects

Skill Quests	Skills
Fractions	Thirds
Course Topic	**Activities Title**
Fractions	Shade Fractions

5. Pupils read and write the fraction notation ½, ⅓ and ¼ and relate this to a fraction of a length, shape or set of objects

Skill Quests	Skills
Fractions	Halves
	Quarters
	Halves and quarters
	Thirds
Course Topic	**Activities Title**
Fractions	Shade Fractions
	Halves and Quarters

6. Pupils find half of numbers

Skill Quests	Skills
Fractions	Halves
	Halves and quarters
Course Topic	**Activities Title**
Fractions	Fractions of a Collection

7. Pupils find ⅓ or ¼ of a number

Skill Quests	Skills
Fractions	Quarters
	Halves and quarters
	Thirds
Course Topic	**Activities Title**
Fractions	Fractions of a Collection

8. Pupils find ¼ and ¾ of an object, shape, set of objects, length or quantity

Skill Quests	Skills
Fractions	Find quarters by halving
Course Topic	**Activities Title**
Fractions	Shade Fractions
	Halves and Quarters

9. Pupils recognise the equivalence of 2/4 and ½	
Skill Quests	**Skills**
Equivalence in fractions	Equivalence in fractions
Course Topic	**Activities Title**
Fractions	Halves and Quarters

Unit 11: Time

1. Compare and sequence intervals of time	
Skill Quests	**Skills**
Intervals of time	Comparing and sequencing intervals of time
Course Topic	**Activities Title**
Time and Money	Days: After and Before
	Days of the Week
	Weekdays and Weekends
	Months: After and Before
	Months of the Year

2. Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times	
Skill Quests	**Skills**
Tell the time: digital and analogue	O'clock and half past (analogue clocks)
	O'clock and half past (digital clocks)
	Quarter past and quarter to (analogue clocks)
	Quarter past and quarter to (digital clocks)
	Telling time to 5 minutes (analogue clocks)
	Telling time to 5 minutes (digital clocks)
Course Topic	**Activities Title**
Time and Money	Tell Time to the Half Hour
	Five Minute Times

3. Know the number of minutes in an hour and the number of hours in a day.	
Skill Quests	**Skills**
Tell the time: digital and analogue	Problem solving with hours and minutes

Unit 12: Position and Direction

1. Order and arrange combinations of mathematical objects in patterns and sequences	
Skill Quests	**Skills**
Patterns and sequences	Making patterns with shapes
	Number patterns
Course Topic	**Activities Title**
Position and Direction	Left or Right?

2. Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).	
Skill Quests	**Skills**
Position, direction and movement	Describing position and movement
	Describing movement and turns
Course Topic	**Activities Title**
Position and Direction	Flip, Slide, Turn
	Following Directions
	Left or Right?
	Where is it?

Unit 13: Multiplication and division

1. Pupils identify the patterns and relationships between the 5 and 10 times tables	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

2. Pupils explain the patterns and relationships between the 5 and 10 times tables	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

3. Pupils use their knowledge of the 5 and 10 times tables to solve problems	
Skill Quests	**Skills**
Multiplication and division problems	Solving problems using multiplication and division
Course Topic	**Activities Title**
Multiplication and Division	Fill the Jars

4. Pupils explain how times table facts can help to find the quotient (10 times table)	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

5. Pupils explain how times table facts can help to find the quotient (5 times table)	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

6. Pupils explain how times table facts can help to find the quotient (2 times table)	
Course Topic	Activities Title
Teacher directed	Teacher directed

7. Pupils explain how a division equation with 2 as a divisor is related to halving	
Course Topic	Activities Title
Teacher directed	Teacher directed

8. Pupils explain each part of a division equation and know how they can be interchanged	
Course Topic	Activities Title
Teacher directed	Teacher directed

9. Pupils use knowledge of divisibility rules when the divisor is 2 to solve problems	
Course Topic	Activities Title
Multiplication and Division	Dividing Twos

10. Pupils use knowledge of divisibility rules when then divisor is 10 to solve problems	
Course Topic	Activities Title
Multiplication and Division	Dividing Tens

11. Pupils use knowledge of divisibility rules when the divisor is 5 to solve problems	
Course Topic	Activities Title
Multiplication and Division	Dividing Fives

12. Pupils explain how a dividend of zero affects the quotient	
Course Topic	Activities Title
Teacher directed	Teacher directed

13. Pupils explain how the quotient is affected when the divisor is equal to the dividend	
Course Topic	Activities Title
Teacher directed	Teacher directed

14. Pupils explain how a divisor of one affects the quotient	
Course Topic	Activities Title
Teacher directed	Teacher directed

Unit 14: Sense of measure

1. Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels	
Skill Quests	**Skills**
Measure lengths	Selecting appropriate units to measure length
Measure mass	Selecting appropriate units to measure mass
Measure volume	Selecting appropriate units to measure volume
Identify correct unit of measure	Choosing the right unit of measure
Course Topic	**Activities Title**
Length, Mass and Volume	How Heavy?
	How Long is that?
	Measure to the Nearest Half Centimetre
	Temperature
	Using a Litre

2. Compare and order lengths, mass, volume/capacity and record the results using >, < and = .	
Skill Quests	**Skills**
Compare lengths, mass and volume	Comparing lengths
	Comparing mass
	Comparing volume
Compare temperatures	Comparing temperatures
Course Topic	**Activities Title**
Length, Mass and Volume	How Full?
	How Heavy?
	Ordering Mass
	Ordering Lengths
	Using a Litre
	Ordering Volumes

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