



Autumn 1

Autumn 2

Spring 1

Spring 2

Summer 1

Summer 2

Fluently add and subtract within 10

Introduction to multiplication-continued

	Shape
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	<u>Money</u>
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Multiplication and division- doubling, halving, quotative and partitive division

Secure fluency of addition and subtraction facts within 10.
(5 lessons)

1. Represent addition and subtraction facts within 10.
2. Recall 1 and 2 more or less than numbers to 10.
3. Recall doubles within 10.
4. Use near doubles within ten.
5. Use known addition and subtraction facts within ten to solve problems.

Addition and subtraction of two-digit numbers (1)
Adding and subtracting ones and tens to and from two-digit numbers.
(15 lessons)

1. Add and subtract one or from a two-digit number within a decade.
2. Add and subtract one to and from a two-digit number crossing the tens boundary.
3. Use number facts to add or subtract a one-digit number and two-digit number.
4. Use number facts to solve addition and subtraction problems.
5. Use number facts to solve problems in measures and data contexts.

6. Use number bonds to ten to add/subtract one-digit and two-digit numbers.
7. Add by bridging a multiple of ten.
8. Subtract by bridging a multiple of ten.

- Representing counting in twos, fives and tens as the two, five and ten times tables.**
(10 lessons)

1. Represent the two times table in different ways.
2. Use knowledge of the two times table to solve problems.
3. Explain the relationship between adjacent multiples of two.
4. Explain that factor pairs can be written in any order.
5. Represent counting in tens as the ten times table.
6. Represent the ten times table in different ways.
7. Explain the relationship between adjacent multiples of ten.
8. Represent counting in fives as the five times table.
9. Represent the five times table in different ways.
10. Explain the relationships between adjacent multiples of five.

Representing counting in fives as the five times table and link to the ten times tables.
(10 lessons)

1. Explain how groups of five and ten are related.

1. Recognise and sort polygons
2. Describe and name polygons including triangles and quadrilaterals
3. Describe, name and sort polygons including pentagons, hexagons and octagons
4. Lines of symmetry
5. Discuss and compare polygons
6. Investigate how polygons can be joined and folded to form 3D shapes
7. Describe and name 3D shapes
8. Describe and name 3D shapes – prisms and pyramids
9. Find different ways to sort 3D shapes
10. Discuss and compare 3D shapes

Addition and Subtraction of two-digit numbers (2)
(15 lessons)

1. Use efficient addition strategies to calculate
2. Combine tens and ones within equations
3. Add two-digit numbers without crossing the tens boundary

1. Recognise and understand the value of different coins
2. Recognise the value of 20p, 50p and £1 coins.
3. Explore combinations of coins that total the same amount.
4. Find the most efficient way to make a given value.
5. Solve problems including those in giving change.

Fractions

Fractions: Identify equal parts and be familiar with halves, thirds and quarters
(10 lessons)

1. Equal or unequal parts
2. Recognise and name the fraction "one half"
3. Recognise and name the fraction "one quarter"
4. Recognise and name the fraction "one third"
5. Read, write and understand fraction notation
6. Find one half of a number
7. Relate finding half of a number to having and doubling
8. Find one third or one quarter of a number
9. Find three quarters of an object, shape, set of objects or quantity.

- ### Doubling, halving, quotative and partitive division (15 lessons)

1. Identify the patterns and relationships between the 5 and 10 times table
2. Explain patterns and relationships between the 5 and 10 times table
3. Use knowledge of the 5 and 10 times tables to solve problems
4. Explain how times table facts can help to find the quotient (10 times table)
5. Explain how times table facts can help to find the quotient (5 times table)
6. Explain how times table facts can help to find the quotient (2 times table)
7. Explain how a division equation with a 2 as a divisor is related to halving
8. Explain each part of a division equation and know how they can be interchanged
9. Use knowledge of divisibility rules when the divisor is 2 to solve problems
10. Use knowledge of divisibility rules when the divisor is 10 to solve problems
11. Use knowledge of divisibility rules when the divisor is 5 to solve problems
12. Explain how the dividend of zero affects the quotient

5. Use a number line to position and estimate the numbers 20-99. Comparing, ordering and partitioning 2-digit numbers (5 lessons) - Compare 2-digit numbers. - Partition 2-digit numbers into tens and ones using place value resources. - Partition 2-digit numbers into tens and ones. - Represent addition and subtraction of tens and ones with equations. - Solve problems by adding and subtracting tens and ones. Calculating within 20 (15 lessons) - Add 3 addends. - Use a first, then and now story to add 3 addends. - Explain that addends can be added in any order. - Add 3 addends efficiently. - Add 3 addends efficiently by finding 2 addends that total 10. - Add 2 numbers that bridge through 10. - Add and subtract 2 numbers that bridge through 10. - Compare the number of objects in 2 sets or difference between 2 measures. - Calculate the difference. - Calculate the difference in different contexts. - Explain what the difference is between consecutive numbers.	- Use bridging to solve addition and subtraction problems. - Find ten more or less than a two-digit number. - Add and subtract ten to and from a two-digit number. - Add multiples of ten to two-digit numbers. - Subtract multiples of ten to two-digit numbers. - Partition two-digit numbers in different ways. - Use efficient strategies to solve problems. Introduction to multiplication Grouping objects in different ways and relating to multiplication (10 lessons) - Explain that objects can be grouped in different ways - Describe how objects have been grouped. - Represent equal groups as repeated addition. - Represent equal groups as repeated addition and multiplication. - Represent equal groups as multiplication. - Explain and represent multiplication when a group contains zero or one items. - Identify and explain each part of a multiplication equation. - Use knowledge of multiplication to calculate the product. - Use knowledge of multiplication to solve problems.	- Explain the relationship between multiples of five and ten. - Use knowledge of the relationships between the five- and ten-times tables to solve problems. - Explain how a factor of zero or one effects the product. - Represent multiplication equations in different ways. - Use knowledge of the two five and ten times tables to solve problems. - Use knowledge of the two five and ten times tables to solve problems in a range of contexts. - Explain what each factor represents in a multiplication story. - Explain what each factor represents in a multiplication story when one of the factors is one. - Explain how a multiplication equation with two as a factor is related to doubling. Multiplying by two, doubling and halving (factors and products) (5 Lessons) - Double two-digit numbers and record as multiplications where one of the factors is two. - Explain how doubling and halving are related. - Halve even two-digit numbers and multiples of ten. - Identify missing factors when one factor is two. - Use knowledge of doubling, halving and the two times table to solve problems.	- Find the missing addend when adding two-digit numbers - Add two-digit numbers when crossing the tens boundary - Solve problems involving the addition of two-digit numbers - Explain different strategies used to subtract - Solve equations involving the subtraction of two-digit numbers - Solve problems involving subtraction of two-digit numbers - Subtract two-digit numbers crossing the tens boundary - Find the missing part when subtracting two-digit numbers - Solve problems involving subtraction when bridging 10 - Use efficient methods to solve subtraction equations - Solve problems involving addition and subtraction - Create addition and subtraction problems	- Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ Time Time: Write and tell the time to five minutes (5 lessons) - Know the number of minutes in an hour and hours in a day - Tell and write the time to five minutes past on a clock face - Tell and write the time to five minutes past and to on a clock face - Tell and write quarter past and quarter to on a clock face - Compare and sequence intervals of time Position and Direction (5 lessons) - Review of using mathematical language to describe position - Use mathematical vocabulary to describe movement - Describe turns as a quarter, half, three quarter or full turn - Solve problems involving position, direction and rotation - Order and arrange objects in patterns and explain the patterns.	- Explain how the quotient is affected when the divisor is equal to the dividend - Explain how a divisor of one affects the quotient - Use knowledge of division strategies to solve problems. Sense of measure- capacity, volume and mass (10 lessons) - Length can be measured in any direction to give height, length and distance - Explain why standard units of measure are needed - Length can be measure in meters and centimetres - Read scales in meters and centimetres - Compare and order lengths - Mass can be measured in grams and kilograms - Compare and order measurements of mass - Volume and capacity can be measured in litres and millilitres - Compare and order measurements of volume and capacity - Temperature
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	12. Calculate the difference when information is presented in a pictogram. 13. Calculate the difference when information is presented in a bar chart. 14. Use knowledge of calculating within 20 to solve problems. 15. Use knowledge of calculating within 20 to solve problems involving statistics.	10. Use knowledge of multiplication to solve problems in a range of contexts.	Introduction to division structures (10 lessons) 1. Explain that objects can be grouped equally. 2. Identify and explain when objects cannot be grouped equally. 3. Explain the relationship between division expressions and division stories. 4. Calculate the number of equal groups in a division story. 5. Use knowledge of skip counting and division to solve problems relating to measure. 6. Skip count using the group size to find the number of groups. 7. Explain that objects can be shared equally. 8. Use skip counting to solve a sharing problem. 9. Skip count to find the group size in a sharing problem. 10. Solve a variety of division problems explaining understanding.			
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