

Birch Maths MTPs

Term 1 – Numbers 10 to 100 / Fluently add and subtract within 10 / Calculations within 20

Unit	Objective	Ready to Progress Criteria	Assessment
Y2 Unit 1	Explain that one ten is equivalent to ten ones	2NPV–1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning 2NPV–2 Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10	
	Represent multiples of ten using their numerals		
	Represent multiples of ten using their numerals and names		
	Represent multiples of ten in an expression or an equation		
	Estimate the position of multiples of ten on a 0 - 100 number line		
	Explain what happens when you add and subtract ten to a multiple of ten		
	Use knowledge of facts and unitising to add and subtract multiples of ten		
	Add and subtract multiples of ten		
	Solve problems involving multiples of ten		
	Solve problems involving multiples of ten in a range of contexts		
Y2 Unit 2	Explore the counting sequence for counting to 100 and beyond	2NPV–2 Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10	
	Count groups of ten and extra ones		
	Count a large group of objects by counting tens and ones		
	Represent a number from 20 to 99		
	Use a number line to position and estimate the numbers 20-99		
Y2 Unit 3	Compare two-digit numbers		
	Partition two-digit numbers into tens and ones using place value resources		
	Partition two-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		
Y2 Unit 4	Represent addition and subtraction facts within 10	2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice	
	Recall one and two more or less than numbers to ten		
	Recall doubles within 10		
	Use near doubles within 10		
	Use known addition and subtraction facts within 10 to solve problems		
Y2 Unit 5	Add three addends	2AS–1 Add and subtract across 10 2AS–2 Recognise the subtraction structure of ‘difference’ and answer questions of the form, “How many more...?”	
	Use a 'First, then, then, now' story to add three addends		
	Explain that the addends can be added in any order		
	Add three addends efficiently		
	Add three addends efficiently by finding two addends that total 10		
	Add two numbers that bridge through 10		
	Add and subtract two numbers that bridge through 10		
	Compare the number of objects in two sets or difference between two measures.		
	Calculate the difference		
	Calculate the difference in different contexts		

Term 2 – Calculations within 20 / Addition and subtraction of two-digit numbers

Unit	Objective	Ready to Progress Criteria	Assessment
Y2 Unit 5 (cont)	Explain what the difference is between consecutive numbers	2AS–1 Add and subtract across 10 2AS–2 Recognise the subtraction structure of ‘difference’ and answer questions of the form, “How many more...?”	
	Calculate the difference when information is presented in a pictogram		
	Calculate the difference when information is presented in a bar chart		
	Use knowledge of calculating within 20 to solve problems		
	Use knowledge of calculating within 20 to solve problems involving statistics		
Y2 Unit 6	Add and subtract one to or from a two-digit number within a decade	2AS–3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number	
	Add and subtract 1 to and from a 2-digit number crossing the tens boundary		
	Use number facts to add or subtract a one-digit number and a two-digit number.		
	Use number facts to solve addition and subtraction problems.		
	Use number facts to solve problems in measures and data contexts		
	Use number bonds to 10 to add/subtract one-digit and two-digit numbers		
	Add by bridging a multiple of ten		
	Subtract by bridging a multiple of ten		
	Use bridging to solve addition and subtraction problems		
	Find 10 more or less than a 2-digit number.		
	Add and subtract 10 to and from a 2-digit number.		
	Add multiples of 10 to 2-digit numbers.		
	Subtract multiples of ten from 2-digit numbers		
	Partition 2-digit numbers in different ways		
	Use efficient strategies to solve problems		

Term 3 – Introduction to multiplication

Unit	Objective	Ready to Progress Criteria	Assessment
Y2 Unit 7	Explain that objects can be grouped in different ways	2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables	
	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		
	Use knowledge of multiplication to solve problems in a range of contexts		
Y2 Unit 8	Represent the 2 times table in different ways		
	Use knowledge of the 2 times table to solve problems		
	Explain the relationship between adjacent multiples of 2		
	Explain that factor pairs can be written in any order		
	Represent counting in tens as the 10 times table		
	Represent the 10 times table in different ways		
	Explain the relationship between adjacent multiples of 10		
	Represent counting in fives as the 5 times table		
	Represent the 5 times table in different ways		
	Explain the relationship between adjacent multiples of 5		
Y2 Unit 9	Explain how groups of five and ten are related		
	Explain the relationship between multiples of five and ten		
	Use knowledge of the relationships between the 5 and 10 times tables to solve problems		
	Explain how a factor of zero or one affects the product		
	Represent multiplication equations in different ways		
	Use knowledge of the 2, 5 and 10 times tables to solve problems		
	Use knowledge of the 2, 5 and 10 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 2 as a factor is related to doubling		
Y2 Unit 10	Double 2-digit numbers and record as multiplications where one of the factors is 2		
	Explain how doubling and halving are related		
	Halve even 2-digit numbers and multiples of 10		
	Identify missing factors when one factor is 2		
	Use knowledge of doubling, halving and the 2 times table to solve problems		

Term 4 – Introduction to division structures / Shape / Addition and subtraction of two-digit numbers

Unit	Objective	Ready to Progress Criteria	Assessment
Y2 Unit 11	Explain that objects can be grouped equally	2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotative division)	
	Identify and explain when objects cannot be grouped equally		
	Explain the relationship between division expressions and division stories		
	Calculate the number of equal groups in a division story		
	Use knowledge of skip counting and division to solve problems relating to measure		
	Skip count using the group size to find the number of groups		
	Explain that objects can be shared equally		
	Use skip counting to solve a sharing problem		
	Skip count to find the group size in a sharing problem		
	Solve a variety of division problems, explaining understanding		
Y2 Unit 12	Recognise and sort polygons	2G–1 Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties	
	Describe and name polygons, including triangles and quadrilaterals		
	Describe, name and sort polygons, including pentagons, hexagons and octagons		
	Lines of symmetry		
	Discuss and compare polygons		
	Investigate how polygons can be joined and folded to form 3D shapes		
	Describe and name 3D shapes		
	Describe and name 3d shapes – prisms and pyramids		
	Find different ways to sort 3D shapes		
	Discuss and compare 3D shapes		
Y2 Unit 13	Use efficient addition strategies to calculate	2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers	
	Combine tens and ones within equations		
	Add two-digit numbers without crossing the tens boundary		
	Find the missing addend when adding two-digit numbers		
	Add 2-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		

Term 5 – Subtraction of two-digit numbers / Money / Fractions / Time / Position and direction

Unit	Objective	Ready to Progress Criteria	Assessment
Y2 Unit 13 (cont)	Find the missing part when subtracting two-digit numbers	2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 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		
Y2 Unit 14	Recognise and understand the value of different coins		
	Recognise the value of 20 p, 50 p and £1 coins		
	Explore combinations of coins that total the same amount		
	Find the most efficient way to make a given value		
	Solve problems including those involving giving change		
Y2 Unit 15	Equal or unequal parts		
	Recognise and name the fraction 'one half'		
	Recognise and name the fraction 'one quarter'		
	Recognise and name the fraction 'one-third'		
	Read, write and understand fraction notation		
	Find one-half of a number		
	Relate finding half of a number to halving and doubling		
	Find one-third or one-quarter of a number		
	Find three-quarters of an object, shape, set of objects or quantity		
	Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$		
Y2 Unit 16	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		
Y2 Unit 17	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		

Term 6 – Times Tables and Division / Sense of measure

Unit	Objective	Ready to Progress Criteria	Assessment
Y2 Unit 18	Identify the patterns and relationships between the 5 and 10 times tables	2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables 2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotative division)	
	Explain patterns and relationships between the 5 and 10 times tables		
	Use knowledge of the 5 and 10 times tables to solve problems		
	Explain how times table facts can help to find the quotient (10 times table)		
	Explain how times table facts can help to find the quotient (5 times table)		
	Explain how times table facts can help to find the quotient (2 times table)		
	Explain how a division equation with 2 as a divisor is related to halving		
	Explain each part of a division equation and know how they can be interchanged		
	Use knowledge of divisibility rules when the divisor is 2 to solve problems		
	Use knowledge of divisibility rules when the divisor is 10 to solve problems		
	Use knowledge of divisibility rules when the divisor is 5 to solve problems		
	Explain how a dividend of zero affects the quotient		
	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		
Y2 Unit 19	Length can be measured in any direction to give height, length and distance		
	Explain why standard units of measure are needed		
	Length can be measured in metres and centimetres		
	Read scales in metres 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		