Math Revision

<u>**73X, 73Y**</u>
<u>Numbers and the number system</u>

Success Criteria	Maths Watch
• Know the meaning of 'multiple' • Identify multiples of a given number	28
• Know the meaning of 'factor' • Know how to find factors of a given number • Know the meaning of 'common factor'	28
• Know the meaning of 'prime number' • Recall the prime numbers less than 20 • Know how to test if a number up to 100 is prime	28
• Understand the use of notation for squared and cubed • Work out the first 10 square numbers • Know the first 12 square numbers • Work out the first 5 cube numbers	81

<u>Counting and comparing</u>

Success Criteria	Maths Watch
• Understand place value in numbers with up to seven digits • Order numbers up to and including those with seven digits • Write numbers up to and including those with seven digits • Read numbers up to and including those with seven digits	1, 92, 2
• Know the meaning of the Roman numerals D and M • Interpret a year when written in Roman numerals	
• Count backwards in whole number steps when negative numbers are included • Count forwards in whole number steps when negative numbers are included	
• Understand and use temperatures below 0°C • Interpret negative numbers in other contexts	23

<u>Calculating: addition and subtraction</u>

Success Criteria	Maths Watch
• Add four-digit numbers and ones, tens, hundreds or thousands mentally • Subtract four-digit numbers and ones, tens, hundreds or thousands mentally • Add a three-digit number to a two-digit number mentally (when no bridging of hundreds is required)	
• Use column addition for numbers with more than four digits	17
• Use column subtraction for numbers with more than four digits	17
• Identify when addition or subtraction is needed as part of solving multi-step problems • Explain why addition or subtraction is needed at any point when solving multi-step problems • Solve multi-step problems involving addition and/or subtraction	17

72X, 72Y

Numbers and the number system

Success Criteria	Maths Watch
• Understand place value in numbers with up to three decimal places	1
• Multiply whole numbers by 10 (100, 1000) • Divide whole numbers by 10 (100, 1000) when the answer is a whole number • Multiply (divide) numbers with up to three decimal places by 10 (100, 1000)	30
• Understand (order, write, read) place value in numbers with up to eight digits	2
• Understand and use negative numbers when working with temperature • Understand and use negative numbers when working in other contexts	23
• Know the meaning of a common multiple (factor) of two numbers • Identify common multiples (factors) of two numbers	28
• Know how to test if a number up to 120 is prime	28

Calculating

Success Criteria	Maths Watch
• Combine addition and subtraction when multiplying mentally • Multiply a two-digit number by a single-digit number mentally	
• Add a three-digit number to a two-digit number mentally (when bridging of hundreds is required) • Multiply a four-digit number by a two-digit number using long multiplication	19
• Identify when addition, subtraction or multiplication is needed as part of solving multi-step problems • Explain why addition or subtraction is needed at any point when solving multi-step problems	19
• Solve multi-step problems involving addition, subtraction and/or multiplication	
• Know that addition and subtraction have equal priority • Know that multiplication and division have equal priority • Know that multiplication and division take priority over addition and subtraction	75

Calculating: Division

Success Criteria	Maths Watch
• Use short division to divide a four-digit number by a one-digit number • Use short division to divide a three- (or four-) digit number by a two-digit number	20
• Understand the method of long division • Use long division to find the remainder at each step of the division • Know how to write, and use, the remainder at each step of the division	20
• Use long division to divide a three- (or four-) digit number by a two-digit number • Write the remainder to a division problem as a remainder • Write the remainder to a division problem as a fraction	20
• Extend beyond the decimal point to write the remainder as a decimal	
• Identify when division is needed to solve a problem • Extract the correct information from a problem and set up a written division calculation • Interpret a remainder when carrying out division	20

Numbers and the number system

Success Criteria	Maths Watch
• Recall prime numbers up to 50. Know how to test if a number up to 150 is prime	28
• Know the meaning of 'highest common factor' and 'lowest common multiple'	79, 80
• Recognise when a problem involves using the highest common factor of two numbers • Recognise when a problem involves using the lowest common multiple of two numbers	79, 80
• Understand the use of notation for powers	131
• Know the meaning of the square root symbol (√)Use a scientific calculator to calculate powers and roots • Make the connection between squares and square roots (and cubes and cube roots)	81
• Identify the first 10 triangular numbers • Recall the first 15 square numbers • Recall the first 5 cube numbers • Know the first 6 cube numbers	
• Use linear number patterns to solve problems	

Counting and Comparing

Success Criteria	Maths Watch
• Place a set of negative numbers in order • Place a set of mixed positive and negative numbers in order	2
• Identify a common denominator that can be used to order a set of fractions • Order fractions where the denominators are not multiples of each other	25
• Order a set of numbers including a mixture of fractions, decimals and negative numbers • Use inequality symbols to compare numbers • Make correct use of the symbols = and ≠ • Know the symbols =, ≠, >,≥ ,<, ≤	3

Calculating

Success Criteria	Maths Watch
• Use knowledge of place value to multiply with decimals	66
• Use knowledge of place value to divide a decimal	67
• Use knowledge of inverse operations when dividing with decimals	67
• Be fluent at multiplying a three-digit or a two-digit number by a two-digit number	19
• Be fluent when using the method of short division	20
• Know the order of operations for the four operations • Know the order of operations for the four operations including brackets • Use brackets in problem involving the order of operations • Understand and apply the fact that addition and subtraction have equal priority • Understand and apply the fact that multiplication and division have equal priority	75