Maths Assessment Grid – Year 6

Context/Name/Date												
Number and Place Value												
Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit	**1**											
Round any whole number to a required degree of accuracy	**2**											
Use negative numbers in context, and calculate intervals across 0	**3**											
Determine the value of each digit in numbers up to 10 000 000	**4**											
Solve number and practical problems that involve all of the above	**5**											
Provide clear arguments (chain of reasoning) justifying their decisions to complex questions involving Y6 place value, clearly explaining why	**6 GDS**											
Addition and Subtraction												
Solve **addition** multi-step problems in contexts, deciding which operations and methods to use and why, using Y6 calculation strategies: • Place value counters leading to column addition	**7**											
Solve **subtraction** multi-step problems in contexts, deciding which operations and methods to use and why, using Y6 calculation strategies: • Column method with regrouping using place value counters leading to formal column method	**8**											
Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	**9**											
Correctly interpret the reasoning of others and spot mistakes/errors in the reasoning of others in complex multi-step questions	**10 GDS**											
Provide clear and full answers to complex multi-step questions	**11 GDS**											
Multiplication and Division												
Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication, using Y6 calculation strategies: • Column multiplication (concrete and pictorial if necessary)	**12**											
Divide numbers up to four digits by a 2-digit whole number using the formal written method of **long division**, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context, using Y6 calculation strategies: • Long division with place value counters (up to 4 digits by a 2-digit number)	**13**											
Divide numbers up to four digits by a 2-digit number using the formal written method of **short division** where appropriate, interpreting remainders according to the context, using Y6 calculation strategies: • Using place value counters to group, leading to pictorial representations then formal short division	**14**											
Use their knowledge of the order of operations to carry out calculations involving the four operations	**15**											
Solve problems involving addition, subtraction, multiplication and division multiply 1-digit numbers with up to two decimal places by whole numbers	**16**											
Provide a complete explanation that can be understood by others and may be supported by jotting to more complex questions	**17 GDS**											
Derives unknown facts from known facts when solving other problems.	**18 GDS**											
Fractions and Decimals												
Use factors to simplify fractions; use common multiples to express fractions in the same denominator	**19**											
Compare and order fractions, including fractions > 1	**20**											
Add fractions with different denominators and mixed numbers, using the concept of equivalent fractions, using Y6 calculation strategies: • Part whole models leading to addition	**21**											
Subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions, using Y6 calculation strategies: • Part whole models leading to subtraction	**22**											
Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, ¼ × ½ = 1/8], using Y6 calculation strategies: • Area models leading to abstract multiplication	**23**											
Divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6], using Y6 calculation strategies: • Physical partitioning leading to 'flip and kiss'	**24**											

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Multiply 1-digit numbers with up to two decimal places by whole numbers, using Y6 calculation strategies: • Area models leading to column multiplication	**25**											
Multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal, using Y6 calculation strategies: • Base 10, leading to mental multiplication	**26**											
Use equivalences between simple fractions, decimals and percentages, including in different contexts	**27**											
Answer all parts complex tasks and provide a clear and logical explanation that includes diagrams or apparatus	**28 GDS**											
Make a conjecture and test using different examples	**29 GDS**											
Ratio and Proportion												
Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts	**30**											
Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison	**31**											
Solve problems involving similar shapes where the scale factor is known or can be found	**32**											
Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	**33**											
Understand and use facts and procedures creatively to solve complex or unfamiliar problems linked to ratio and proportion	**34 GDS**											
Algebra												
Generate and describe linear number sequences	**35**											
Express missing number problems algebraically and use simple formulae	**36**											
Find pairs of numbers that satisfy an equation with two unknowns	**37**											
Understand and use facts and procedures creatively to solve complex or unfamiliar problems linked to algebra	**38 GDS**											
Measurement												
Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate	**39**											
Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places	**40**											
Recognise that shapes with the same areas can have different perimeters and vice versa	**41**											
Calculate the area of parallelograms and triangles	**42**											
Understand and use facts and procedures creatively to solve complex or unfamiliar problems linked to measurement	**43 GDS**											
Geometry												
Draw 2-D shapes using given dimensions and angles	**44**											
Recognise, describe and build simple 3-D shapes, including making nets	**45**											
Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons	**46**											
Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius	**47**											
Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles	**48**											
Describe positions on the full coordinate grid (all four quadrants)	**49**											
Draw and translate simple shapes on the coordinate plane, and reflect them in the axes	**50**											
Understand and use facts and procedures creatively to solve complex or unfamiliar problems linked to shape, direction and position	**51 GDS**											
Statistics												
Interpret and construct pie charts and line graphs and use these to	**52**											
Solve problems calculate and interpret the mean as an average	**53**											
Understand and use facts and procedures creatively to solve complex or unfamiliar problems linked to statistics	**54 GDS**											
Score												

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Stage judgement												