Maths Assessment Grid – Year 5

Context/Name/Date												
Number and Place Value												
Read, write, order and compare numbers to at least 1000000 and determine the value of each digit	**1**											
Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero	**2**											
Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	**3**											
Apply knowledge of Y5 place value to a range of problems in different contexts.	**4 GDS**											
Addition and Subtraction												
Add whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction) using Y5 calculation strategies: • Place value counters leading to column addition	**5**											
Subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction) using Y5 calculation strategies: • Column method with regrouping using place value counters, then pictorial moving onto abstract.	**6**											
Add and subtract numbers mentally with increasingly large numbers (e.g. 12462 – 2300 = 10162)	**7**											
Solve problems involving numbers up to three decimal places	**8**											
Use known facts about the structure and relationships between numbers to answer a range of complex questions without explicitly calculating.	**9 GDS**											
Use known addition and subtraction facts to find missing values within calculations.	**10 GDS**											
Multiplication and Division												
Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers	**11**											
Multiply numbers up to four digits by a 1 or 2-digit number using a formal written method, including long multiplication for 2-digit numbers using Y5 calculation strategies: • Column multiplication (concrete using place value counters and pictorial if necessary)	**12**											
Divide numbers up to four digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context • Short division (concrete using place value counters to group and pictorial if necessary	**13**											
Multiply and divide numbers mentally drawing upon known facts	**14**											
Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	**15**											
Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)	**16**											
Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes	**17**											
Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	**18**											
Use knowledge of factors to find all possibilities when answering more complex problems	**19 GDS**											
use knowledge of rules of divisibility to find possibilities when answering more complex problems.	**20 GDS**											

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Fractions												
Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	**21**											
Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (for example, 2/5 + 4/5 = 6/5 = 1 1/5) using Y5 calculation strategies: • Using physical bar models, cubes or Lego, then drawing diagrams, then multiplying the whole by the denominator and adding the numerator.	**22**											
Add fractions with the same denominator and denominators that are multiples of the same number using Y5 calculation strategies: • Part whole models leading to addition	**23**											
Subtract fractions with the same denominator and denominators that are multiples of the same number • Part whole models leading to subtraction	**24**											
Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams following the Y5 calculation strategies: • Repeated addition of fractions starting with numicon and bar models, leading to abstract multiplication	**25**											
Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal	**26**											
Solve problems which require knowing percentage and decimal equivalents of ½ , ¼, 1/5, 2/5 and 4/5 and those fractions with a denominator of a multiple of 10 or 25	**27**											
Read and write decimal numbers as fractions (0.71 = 71/100)	**28**											
Solve complex problems using knowledge of fractions, decimals and percentages working systemically, using trial and error but should be able justify choices and build on findings.	**29 GDS**											
Measurement												
Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	**30**											
Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	**31**											
Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes	**32**											
Understand and use facts and procedures creatively to solve complex or unfamiliar problems linked to measurement	**33 GDS**											
Geometry												
Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	**34**											
Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	**35**											
Draw given angles, and measure them in degrees	**36**											
Identify: angles at a point and one whole turn (total 360 degrees) angles at a point on a straight line and half a turn (total 180 degrees) other multiples of 90 degrees	**37**											
Use the properties of rectangles to deduce related facts and find missing lengths and angles	**38**											
Distinguish between regular and irregular polygons based on reasoning about equal sides and angles	**39**											
Understand and use facts and procedures creatively to solve complex or unfamiliar problems linked to shape, position and direction	**40 GDS**											

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Statistics													
Solve comparison, sum and difference problems using information presented in a line graph	**41**												
Complete, read and interpret information in tables, including timetables	**42**												
Understand and use facts and procedures creatively to solve complex or unfamiliar problems linked to statistics	**43 GDS**												
Score													
Stage judgement													