| Year 5 Mathematics Personalised Learning Checklist | | | | | | | | | | | | | | | | | | |
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| Supporting Quality First Teaching by diagnosing barriers to learning | | | | | | | Pupils' Names | | | | | | | | | | | |
| PRIMARY | | | | | | | | | | | | | | | | | | |
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| 1. Can understand the place value of each digit in numbers up to 1 000 000 | | | | | | | | | • | | | • | • | | | | | |
| a. Can read and write numbers up to 1 000 000 | | | | | | | | | | | | | | T | | | | |
| b. Can order and compare numbers up to 1 000 000 | | | | | | | | | | | | | | + | | | | |
| c. Can understand the place value of each digit in numbers up to 1 000 000 | | | | | | | | | | | | | | +- | | | | |
| d. Can interpret negative numbers in context, such as temperature | | | | | | | | | | | | - | + | +- | | | | |
| e. Can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 or 100 000 | | | | | | | | | | | - | | | +- | | | | |
| f. Can solve problems using place value and number facts | | | | | | | | | | | - | | | +- | | | | |
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| 2. Number - addition, subtraction (mental and written) | | | | | | | | | | | | | | | | | | |
| a. Can add three digit and extend to four-digit numbers using the formal column method | | | | | | | | | | | | | | | | | | |
| b. Can subtract three digit and extend to four-digit numbers using the formal column method | | | | | | | | | | | | | | | | | | |
| c. Can add and subtract increasingly large numbers mentally e.g. 12 462 - 2300 = 10 162 | | | | | | | | | | | | | | | | | | |
| d. Can use rounding to check answers to addition and subtraction calculations. | | | | | | | | | | | | | | 1 | | | | |
| e. Can solve mulit-problems involving addition and subtraction, deciding which operation and which method to use | | | | | | | | | | | | | | | | | | |
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| 3. Number - multiplication and division (mental and written) | | | | | | | | | _ | | | | | | | | | |
| a. Can recall and use multiplication and division facts for all the times tables | | | | | | | | | | | | | | | | | | |
| b. Can multiply and divide mentally using known facts | | | | | | | | | | | | | | | | | | |
| c. Can multiply and divide whole numbers and decimals by 10, 100 and 1000 | | | | | | | | | | | | | | | | | | |
| d. Can multiply up to four-digit numbers by one-digit numbers using short multiplication | | | | | | | | | | | | | | | | | | |
| e. Can multiply up to four-digit numbers by two-digit numbers using long multiplication | | | | | | | | | | | | | | | | | | |
| f. Can divide up to four-digit numbers by one-digit using short division | | | | | | | | | | | | | | 1 | | | | |
| g. Can interpret remainders in context as fractions, decimals or by rounding | | | | | | | | | | | | | | 1 | | | | |
| h. Can identify multiples and factors | | | | | | | | | | | | | | 1 | | | | |
| i. Can establish whether a number up to 100 is prime | | | | | | | | | | | | | | 1 | | | | |
| j. Can recall prime numbers up to 19 | | | | | | | | | | | | | | 1 | | | | |
| k. Can recognise and use square numbers and cube numbers | | | | | | | | | | | | | 1 | 1 | | | | |
| I. Can solve problems using multiples, factors, square numbers and cube numbers | 1 1 | | | | | | | | | | | | + | + | | | | |
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| m. Can solve problems using simple scaling such as kilometres to metres | | | | | | | | 1 | 1 | • | | | 1 | 1 | | | | |

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| 4. Number - fractions (including decimals and percentages) | | | | | | | | l . | | |
| a. Can compare and order fractions whose denominators are multiples of the same number | | | | | | | | | | |
| b. Can identify, name and write equivalent fractions of a given fraction, represented visually | | | | | | | | | 1 | |
| c. Can recognise mixed numbers and improper fractions | | | | | | | | | | |
| d. Can convert from mixed numbers to improper fractions and from improper fractions to mixed numbers | | | | | | | | | | |
| e. Can add fractions with the same denonimator and denominators that are multiples of the same number | | | | | | | | | 1 | |
| f. Can subtract fractions with the same denonimator and denominators that are multiples of the same number | | | | | | | | | 1 | |
| g. Can multiply proper fractions and mixed numbers by whole numbers using diagrams, bar models and/or fraction pieces | | | | | | | | | 1 | |
| h. Can read and write decimal numbers as fractions e.g. 0.71 = 71/100 | - | | | | | | | | 1 | |
| i. Can recognise and use hundredths | - | | | | | | | | 1 | |
| j. Can round decimals with 2 decimal places to the nearest whole number and to one decimal place | - | | | | | | | | 1 | |
| k. Can read, write, order and compare numbers with up to three decimal places | - | | | | | | | | 1 | |
| I. Can solve problems involving numbers up to three decimal places | - | | | | | | | | 1 | |
| m. Can recognise the % symbol and understand that it relates to the number of parts per hundred | - | | | | | | | | 1 | |
| n. Can write percentages as fractions with denominator 100 as part of a decimal | _ | | | | | | | | 1 | |
| o. Can understand that percentages, decimals and fractions are different ways of expressing proportion | _ | | | | | | | | 1 | |
| p. Can solve problems which require knowing percentage, decimal and fraction equivalence for 1/2, 1/4, fifths and multiples of 10 or 25 | _ | | | | | | | | 1 | |
| p. can solve problems which require knowing percentage, decimal and fraction equivalence for 1/2, 1/4, mins and multiples of 10 or 25 | | | | | | | | | | |
| E Management | | | | | | | | | | |
| 5. Measures | | | | | | | | | | |
| a. Can convert between different units of metric measures, using place value | | | | | | | | | | |
| b. Can understand and use equivalence between metric and imperial units of measure, such as inches, pounds and pints | | | | | | | | | | |
| c. Can measure and calculate the perimeter of composite rectilinear shapes, including squares | | | | | | | | | | |
| d. Can measure and calculate the area of a rectangle, including a square | | | | | | | | | | |
| e. Can estimate the area of an irregular shape | | | | | | | | | | |
| f. Can estimate volume | | | | | | | | | | |
| g . Can estimate capacity | | | | | | | | | | |
| h. Can solve problems involving converting units of time | | | | | | | | | | |
| i. Can use all four operations to solve problems involving measure | | | | | | | | | | |
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| 6. Geometry - properties of shape | | | | | | | | | | |
| a. Can identify 3D shapes from 2D representations | | | | | | | | | | |
| b. Can estimate and compare acute, obtuse and reflex angles | | | | | | | | | | |
| c. Can draw angles | | | | | | | | | | |
| d. Can identify angles at a point and one whole turn (360°) | | | | | | | | | | |
| e. Can identify angles at a point on a straight line and 1/2 a turn (180°) | | | | | | i | | | | |
| f. Can use properties of rectangles, including diagonals, to deduce related facts and find missing lengths and angles | | | | | | i | | | | |
| g. Can distinguish between regular and irregular polygons based on reasoning round equal sies and angles | | | | | - t | t | | | | |
| h. Can solve problems involving angles | | | | | | i | | | | |
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| 7. Geometry - position and direction | | | | | | | · | |
| a. Can identify and represent the position of a shape following reflection, in lines parallel to the axes | | | | | | | | |
| b. Can identify and represent the position of a shape following translation | | | | | | | | |
| c. Can solve problems involving position of shapes | | | | | | | | |
| 8. Statistics | | | | T. | | | | |
| a. Can solve comparison, sum and difference problems using information presented in a line graph | | | | | | | | |
| b. Can complete, read and interpret information in tables, including timetables | | | | | | | | |