**St Mary’s - Year 5 Maths overview**

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| **MNP** | **NCETM Spine Materials (subject knowledge development)** | **Additional resources to support understanding** | | | |
| [**Yr5 NCETM assessment materials**](https://www.ncetm.org.uk/public/files/23305632/Mastery_Assessment_Y5_Low_Res.pdf) | **I See Reasoning** | **NRICH** | **White Rose** |
| **Numbers to 1,000,000**  - Reading and writing numbers to 100,000, 1,000,000, 10,000,000  - Comparing numbers to 1,000,000  - Making number patterns  - Rounding numbers | **1.26: TP 1.1- 1.12**  **1.26: TP 2.1-2.6, 3.1-3.3, 4.1-4.8**  **1.26: TP 5.1-5.8** | **P9-10** | True or false, p4  Rank by difficulty, p4  Spot the pattern, p5  Number lines, p6  Different ways, p7  Estimate, p7  Investigate, p8  Ture or false, p9  Which answer, p17  I know…so… p18  Explain the mistakes, p19  Explain, p19  Explore, p19, 20  How many ways, p20 | [Space distances](https://nrich.maths.org/13270)  [Tug harder](https://nrich.maths.org/5898)  [Swimming pool](https://nrich.maths.org/5836)  [Sea level](https://nrich.maths.org/5929) | [Place value](https://whiterosemaths.com/wp-content/uploads/2020/07/Year-5-Block-1-Place-Value.pdf) |
| **Whole numbers: Addition and subtraction**  - Counting on to add  - Counting backwards to subtract  - Adding within 1,000,000  - Adding and subtracting within 1,000,000  - Subtracting within 1,000,000 | **1.28: TP 1.1- 1.12, 2.1-2.7, 3.1-3.7, 4.1-4.6**  **1.29: (fluency sessions) TP 1.1-1.10, 2.1-2.9, 3.1-3.14, 4.1-4.8, 5.1-5.7, 6.1-6.8** | **P11-13** | Rank by difficulty, p21  I know…so…, p22  Broken calculator, p22  Explain the mistakes, p23  Investigate, p24  How many ways, p25 | [Twenty Divided Into Six](https://nrich.maths.org/1047)  [Maze 100](https://nrich.maths.org/91)  [Six Ten Total](https://nrich.maths.org/10917)  [Six Numbered Cubes](https://nrich.maths.org/10918) [Reach 100](https://nrich.maths.org/1130) | [Addition and subtraction](https://whiterosemaths.com/wp-content/uploads/2020/07/Year-5-Block-2-Addition-and-Subtraction.pdf) |
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| [**Yr5 NCETM assessment materials**](https://www.ncetm.org.uk/public/files/23305632/Mastery_Assessment_Y5_Low_Res.pdf) | **I See Reasoning** | **NRICH** | **White Rose** |
| **Whole numbers: Multiplication and Division**  - Finding multiples  - Finding factors  - Finding common factors  - Finding prime numbers  - Finding square and cube numbers  - Multiplying by 10, 100, 1000  - Multiplying 2-digit and 3-digit numbers by a single digit  - Multiplying 4-digit numbers  - Multiplying a 2-digit number by a 2-digit number  - Multiplying a 3-digit number by a 2-digit number  - Dividing by 10, 100 and 1,000  - Dividing 3-digt and 4-digit numbers  - Dividing 4-digit numbers  - Dividing with a remainder | **2.18: (fluency sessions) TP 1.1-1.9, 2.1-2.11**  **2.21: TP 5.1-5.6**  **2.21: TP 1.1- 1.7, 2.1-2.6, 6.1-6.3**  **2.22: TP 2.1- 2.5**  **2.21: TP 3.1- 3.3, 4.1-4.3**  **2.19: (fluency sessions) TP 4.1-4.4**  **2.19: (fluency sessions) TP 2.1- 2.5** | **P14-16** | Explain the mistakes, p26, 27  I know…so… p27, 28  Broken calculator, p28  Rank by difficulty, p29  Matching number sentences, p29  Is it the same? P30  3 ways, p31  True or false? p31  How many ways? P32  Missing digits, p33  Explain, p35  Explore, p35, 36  Rank by difficulty, p37  I know…so… p38  Explain the mistake, p39  Broken calculator, p42  How many ways, p42,43 | [Sweets in a Box](https://nrich.maths.org/84)  [Which Is Quicker?](https://nrich.maths.org/1817)  [Multiplication Squares](https://nrich.maths.org/1134) [Flashing Lights](https://nrich.maths.org/1014)  [Abundant Numbers](https://nrich.maths.org/1011)  [Factors and Multiples Game](https://nrich.maths.org/factorsandmultiples)  [Pebbles](https://nrich.maths.org/48)  [Three Dice](https://nrich.maths.org/6719)  [Factor Track](https://nrich.maths.org/7468)  [Two primes make one square](https://nrich.maths.org/1150)  [All the digits](https://nrich.maths.org/1129)  [Trebling](https://nrich.maths.org/2004)  [Division rules](https://nrich.maths.org/10490)  [Multiply multiples 1](https://nrich.maths.org/10421)  [Multiply multiples 2](https://nrich.maths.org/10424)  [Multiply multiples 3](https://nrich.maths.org/10478)  [Up and Down Staircases](https://nrich.maths.org/2283)  [One Wasn’t Square](https://nrich.maths.org/1119)  [Cycling Squares](https://nrich.maths.org/1151)  [Picture a Pyramid](https://nrich.maths.org/5809)  [Division Rules](https://nrich.maths.org/10490)  [Odd Squares](https://nrich.maths.org/2280)  [Cubes Within Cubes](https://nrich.maths.org/1155) [Curious Number](https://nrich.maths.org/7218)  [Highest and Lowest](https://nrich.maths.org/943) [Make 100](https://nrich.maths.org/1013)  [Four Goodness Sake](https://nrich.maths.org/1081) | [Multiplication and division](https://whiterosemaths.com/wp-content/uploads/2020/07/Year-5-Block-4-Multiplication-and-Division.pdf)  [Multiplication and division](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/01/Year-5-2018-19-Spring-Term-Block-1-FINAL.pdf) |
| **Whole numbers: Word problems**  - Solving word problems |  |  |  |  |  |
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| [**Yr5 NCETM assessment materials**](https://www.ncetm.org.uk/public/files/23305632/Mastery_Assessment_Y5_Low_Res.pdf) | **I See Reasoning** | **NRICH** | **White Rose** |
| **Graphs**  - Reading tables  - Reading line graphs | **1.26: TP 6.1-6.4**  **1.27: TP 6.1-6.4** | **P28-29** | Act the graph, p89  Which answer, p91 |  | [Statistics](https://whiterosemaths.com/wp-content/uploads/2020/07/Year-5-Block-3-Statistics.pdf) |
| **Fractions**  - Dividing to Make Fractions  - Writing improper fractions and mixed numbers  - Finding equivalent fractions  - Comparing and ordering fractions  - Making number pairs  - Adding fractions  - Subtracting fractions  - Multiplying fractions by whole numbers  - Multiplying mixed numbers  - Multiplying mixed numbers by whole numbers | **3.7: TP: 1.1-1.10, 2.1-2.23, 3.1- 3.15**  **3.8- TP: 5.1-5.15**  **3.8: TP: 1.1- 1.14, 3.1-3.8, 4.1-4.14**  **3.8: TP: 2.1-2.10, 3.1-3.8, 4.1-4.14** | **P17-20** | True or false, p44  Explain the mistake, p44  Explain, p45  Different ways, p46  How many ways, p46  I know…so… p47  Explore, p48  Different ways, p49  I know…so… p51  Different ways, p52  Which picture, p52  Explain the mistake, p53  Rank by difficulty, p53  How many ways, p54  Explain the mistake, p55  Rank by difficulty, p55  I know…so… p56  Which picture, p59, 60 |  | [Fractions](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/01/Year-5-2018-19-Spring-Term-Block-2-FINAL.pdf) |
| **Decimals**  - Writing decimals  - Reading and writing decimals  - Comparing decimals  - Writing fractions as decimals  - Adding and subtracting decimals  - Rounding decimals |  | **P17-20** | Number lines, p10  How many ways? P11  Different ways, p12 | [Round the dice decimals](https://nrich.maths.org/10428)  [Greater than or less than?](https://nrich.maths.org/10587)  [Spiralling decimals](https://nrich.maths.org/10326)  [Route product](https://nrich.maths.org/5632)  [Forgot the numbers](https://nrich.maths.org/1015) | [Decimals and percentages](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Spring-Year-5-2018-19-Block-3-FINAL.pdf)  [Decimals](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/04/2019/04/2019/04/Year-5-2018-19-Summer-Block-1-Decimals.pdf) |
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| **Percentage**  - Comparing quantities  - Finding percentages |  | **P17-20** | Different ways, p61 | [Matching fractions, decimals percentages](https://nrich.maths.org/1249) | [Decimals and percentages](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Spring-Year-5-2018-19-Block-3-FINAL.pdf) |
| **Geometry**  - Knowing types of angle  - Measuring angles  - Investigating angles on a line  - Investigating angles at a point  - Drawing angles  - Drawing lines and angles  - Describing squares and rectangles  - Investigating Angles in squares rectangles  - Solving problems involving angles in rectangles  - Solving problems involving angles  - Investigating regular polygons |  | **P25-27** | Odd one out, p77  Explore, p77, 78  Odd one out, p78  Fill the gaps, p79  Different ways, p80  It is correct, p80  Explain the mistake, p84, 85 | [The Numbers Give the Design](https://nrich.maths.org/6919)  [Six Places to Visit](https://nrich.maths.org/5655)  [How Safe Are You?](https://nrich.maths.org/5647)  [Olympic Turns](https://nrich.maths.org/8191) [Egyptian Rope](https://nrich.maths.org/982) [Bracelets](https://nrich.maths.org/79) | [Geometry: Properties of shape](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Summer_Term_SOL/Year-5-2018-19-Summer-Block-2-Properties-of-Shape.pdf) |
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| [**Yr5 NCETM assessment materials**](https://www.ncetm.org.uk/public/files/23305632/Mastery_Assessment_Y5_Low_Res.pdf) | **I See Reasoning** | **NRICH** | **White Rose** |
| **Position and movement**  - Naming and plotting points  - Describing translations  - Describing movements  - Successive reflections | **1.27: TP 6.1-6.4** |  | Explain the mistakes, p81  Explain, p82  Different ways, p86  Explain, p86 | [Transformations on a Pegboard](https://nrich.maths.org/1813)  [More Transformations on a Pegboard](https://nrich.maths.org/4901) | [Position and direction](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/05/Year-5-2018-19-Summer-Block-3-Position-and-Direction.pdf) |
| **Measurements**  - Converting units of length  - Converting units of mass  - Converting units of time  - Telling the temperature |  | **P21-24** | Explain the mistakes, p66  Order, p68  Explain the mistakes, p69  Rank by difficulty, p69 |  | [Converting units](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/06/Year-5-2018-19-Summer-Block-4-Converting-Units.pdf) |
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| [**Yr5 NCETM assessment materials**](https://www.ncetm.org.uk/public/files/23305632/Mastery_Assessment_Y5_Low_Res.pdf) | **I See Reasoning** | **NRICH** | **White Rose** |
| **Area and perimeter**  - Finding the perimeter  - Using scale diagrams to find the perimeter  - Measuring the area |  | **P21-24** | Estimate, p72  I know…so… p72  Draw, p75 | [Area and perimeter](https://nrich.maths.org/7280)  [Through the window](https://nrich.maths.org/10344)  [Shaping It](https://nrich.maths.org/7301)  [Brush Loads](https://nrich.maths.org/4911)  [Cubes](https://nrich.maths.org/42)  [Numerically Equal](https://nrich.maths.org/1045) [Making Boxes](https://nrich.maths.org/89)  [Ribbon Squares](https://nrich.maths.org/9939)  [Fitted](https://nrich.maths.org/1854) | [Perimeter and Area](https://whiterosemaths.com/wp-content/uploads/2020/07/Year-5-Block-5-Perimeter-and-Area.pdf) |
| **Volume**  - Understanding the volume of solids  - Finding the volume of solids  - Finding the capacity of rectangular boxes  - Converting units of volume  - Solving word problems involving volume | **2.20: TP 1.1-1.5, 2.1-2.8, 3.1-3.11, 4.1-4.4, 5.1-5.4** |  | Estimate, p70, 71 |  | [Volume](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Summer_Term_SOL/Year-5-Block-5-Volume.pdf) |
| **Roman Numerals**  - Writing Roman Numerals to 1000  - Writing years in Roman Numerals |  |  |  | [Roman numerals](https://nrich.maths.org/13271) |  |