**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, p4Rank by difficulty, p4Spot the pattern, p5Number lines, p6Different ways, p7Estimate, p7Investigate, p8Ture or false, p9Which answer, p17I know…so… p18Explain the mistakes, p19Explain, p19Explore, p19, 20How 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, p21I know…so…, p22Broken calculator, p22Explain the mistakes, p23Investigate, p24How 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, 27I know…so… p27, 28Broken calculator, p28Rank by difficulty, p29Matching number sentences, p29Is it the same? P303 ways, p31True or false? p31How many ways? P32Missing digits, p33Explain, p35Explore, p35, 36Rank by difficulty, p37I know…so… p38Explain the mistake, p39Broken calculator, p42How 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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| **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, p89Which 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, p44Explain the mistake, p44Explain, p45Different ways, p46How many ways, p46I know…so… p47Explore, p48Different ways, p49I know…so… p51Different ways, p52Which picture, p52Explain the mistake, p53Rank by difficulty, p53How many ways, p54Explain the mistake, p55Rank by difficulty, p55I know…so… p56Which 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, p10How many ways? P11Different 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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| [**Yr5 NCETM assessment materials**](https://www.ncetm.org.uk/public/files/23305632/Mastery_Assessment_Y5_Low_Res.pdf) | **I See Reasoning** | **NRICH** | **White Rose** |
| **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, p77Explore, p77, 78Odd one out, p78Fill the gaps, p79Different ways, p80It is correct, p80Explain 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, p81Explain, p82Different ways, p86Explain, 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, p66Order, p68Explain the mistakes, p69Rank 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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| **Area and perimeter**- Finding the perimeter- Using scale diagrams to find the perimeter- Measuring the area |  | **P21-24** | Estimate, p72I know…so… p72Draw, 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) |  |