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| Skill/Year group**Springfield Junior School****Maths Basic Skills for Fluency** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Halving and doubling**Use partitioning as a strategy for doubling and halving to ensure conceptual understanding.  | Double any number to 20, and multiple of 10Half all even numbers to 20 and multiple of 10 | Double any number up to 1000Half even numbers to 1000Half odd numbers to 20Understand and apply x and ÷ by 4 using halving and doubling | Double any number to 1000 Half any number to 1000, including odd numbers.Understand and apply x and ÷ by 4 and 8 using halving and doubling.Make decisions about when to use mental or written strategy for x or ÷ by 2, 4, or 8 | Double any numberMake decisions about when to use mental or written strategy for x or ÷ by 2, 4, or 8Consolidate use of doubling and halving in different contexts. |
| **Times tables**Daily practice of times tables required.  | Learn and confidently recall2, 3, 4, 5, 8 and 10 times tables. Know related division facts. | Learn and confidently recall all times tables to 12x12.Know related division facts.Use knowledge of times tables to multiply by 10, and multiples of 10. | Use knowledge of times tables to multiply by 10, 100 and 1000 and multiples of 10,100 and 1000.Fluently relate times table facts to other number facts.e.g. 7x2= 14, 7x20=140, 70x20=1400, 1400÷2=700 etc | Fluently apply knowledge of times tables to varied problems. |
| **Factors and multiples**Use these terms when teaching multiplication and division to embed within the children’s vocabulary. | Understand the term ‘factor’ and multiple in relation to multiplication.  | Identify factor pairs of any number to 100. Know that a multiple if the result of multiplying 2 numbers together. | Identify factor pairs of numbers to 100.Know and use the terms prime, square and cubed accurately.Find common factors of two numbers to 100. |  |
| **Mental addition and subtraction**Children must be taught which mental strategy is best to solve the different problems they may face. | Know 1 and 10 more or less than any number to 100Mentally add and subtract using near doubles or rounding up to 100.e.g. 39+39 = 40+40-239+27 =40+30-4Mentally add or subtract using adjusting strategy up to 100.e.g. 39+27 = 40+26 or 39-27= 40-28Mentally add and subtract using number bonds.e.g.40-9=3131+9=40 | Know 10, 100 and 1000 more or less of any numberMentally add and subtract using near doubles or rounding up to 1000.e.g. 39+39 = 40+40-239+27 =40+30-4Mentally add or subtract using adjusting strategy up to 1000.e.g. 39+27 = 40+26 or 39-27= 40-28Mentally add and subtract using number bonds.e.g.40-9=3131+9=40 | As previously, numbers to 10,000.Use mental methods to make estimations of an answer, before calculating. | Consolidate and apply knowledge of mental addition and subtraction strategies.Estimating before calculating to identify reasonableness of an answer. |
| **Rounding** | Round numbers to the nearest 10, or 100 | Round any number to the nearest 10, 100 and 1000.Round decimal numbers to the nearest whole number.  | Round any number to the nearest 10, 100, 1000, 10,000 or 100,000Round decimal numbers to the nearest whole number or tenth. | Round any number to the nearest 10, 100, 1000, 10,000 or 100,000Round decimal numbers to the nearest whole number, tenth or hundredth |
| **The four operations** | Estimate answers before calculating.Decision making for best strategy-mental or written.Have a written strategy for solving all four operations.Addition: 3d+3dSubtraction: 3d-3dMultiplcation: 2dx1dDivision: 2d/1dUse inverse operation to check answers. | Estimate answers before calculating.Decision making for best strategy-mental or written.Have a written strategy for solving all four operations.Addition: 4d+4dSubtraction: 4d-4dMultiplication: up to 3dx1d (expanded method)Division 3d/1dUse inverse operation to check answers. | Estimate answers before calculating.Decision making for best strategy – mental or written.Have a written strategy for solving all four operations.Addition : Column methodSubtraction: Column methodMultiplication: Compact written method (up to 4dx2d)Division: Division bracket. Up to 4d/1dUse inverse operation to check answers. | Estimate answers before calculating.Decision making for best strategy.Have a written strategy for solving all four operations.Addition : Column methodSubtraction: Column methodMultiplication: Compact written methodDivision: Division bracket.Use inverse operation to check answers.BIDMAS |
| **Multiplying by 10,100 and 1000** | Multiply any single digit by 10 or a multiple of 10 (to 90)Divide any multiple of 10, to 100 by 10.Know that x0 =0 | Multiply single and 2 digit numbers by 10,100 and 1000Divide multiples of 10,100 and 1000 by 10, 100 and 1000. | Multiply and divide any number by 10,100 and 1000, including decimals. Apply skill to converting units of measure. | Multiply and divide any number by 10,100 and 1000, including decimals. Apply skill to converting units of measure. |
| **Number bonds** | Number bonds to 10 and 100.All possibilities for numbers to 20.  | Investigate different ways of making numbers using number bond knowledge.Use knowledge of number bonds to 10 and 20 to solve problems to 1000.e.g. 1000-900997+3=1000 | Use knowledge of number bonds to solve more complex problems.Use knowledge of number bonds to 10 and 20 to solve problems to 10000.e.g. 1000-900997+3=1000 | Use knowledge of number bonds to solve more complex problems. |
| **Fractions, decimals and percentages** | Know visually½, ¼, 1/3, 2/4. ¾ and 1/10sUse a bar to represent these fractions. | Recognise and write unit and non-unit fractions of visual representations.Equivalent fractions to ½s, 1/4s.Know that 1/10 =0.1 | Calculate equivalent fractions with different denominators.Know fraction, decimal and percentage equivalent of:¼, ½, ¾, any tenth, 1/5, 1/3, hundredths and thousandthsAdd and subtract numbers with the same and different denominators. | Equivalent fractions, decimals and percentages.Finding percentages of any given amount.Multiply and divide fractions |
| **Time****Learn it facts across the school:****365 days in a year****12 months in a year****30/1 days in a month (except feb)****24 hours in a day****7 days in a week****60 minutes in an hour****60 seconds in a minute****Fortnight = two weeks****Annual - yearly** | Estimate and read the time using an analogue and digital representation to the nearest 5 minutes.Use a number line to solve time problems | Convert between analogue and digital time.Use a number line to solve time problems | Solve problems involving time. Read and interpret time problems. Use a number line to solve time problems. | Solve problems involving time. Read and interpret time problems. Use a number line to solve time problems. |
| **Geometry** | Name all 2d ShapesIdentify right anglesKnow language parallel and perpendicular | Acute and obtuse anglesKnow language parallel and perpendicular | Identify all 3 d shapes from drawn representationMeasure and draw angles using a protractor |  |
| **Units of Measure:****Learn its:****10mm=1cm****100cm=1m****1000m=1km****1000g=1kg****1000ml=1l** |  | Convert between units of measure. Use x by 10, 100 or 1000 to convert. | Convert between units of measure. Use x by 10, 100 or 1000 to convert. | Solve problems involving different units of measure requiring conversion between units.  |