St Stephens Community Academy - Maths Scheme of Learning (Year 6) 2016

| Year 6 | Autumn |  | Spring |  | Summer |  |
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| Week | 1 | 2 | 1 | 2 | 1 | 2 |
| 1 | Number-Place <br> value/Addition <br> Place value in 6-digit <br> numbers (PV <br> additions/subtractions). <br> Use column addition to add pairs of 5-digit numbers with 6-digit answers. | Number- <br> Decimals/Subtraction <br> Add/subtract multiples of 0.01 to/from numbers with two decimal places, crossing multiples of 0.1. <br> Subtract pairs of numbers with two decimal places | Number - Place Value <br> : Place value in 7-digit numbers (PV + and -, compare numbers). <br> : Add and subtract 1, 10, 100, 1000, 10,000, 100,000 and 1,000,000 to/from 7-digit numbers. <br> : Place 7-digit nos on number lines and round to the nearest 10,000, 100,000 or 1,000,000. <br> Use negative numbers in context of temperature; Calculate rises and falls in temperature | Algebra <br> Understand and use simple formulae. <br> Express missing number problems algebraically. <br> Find pairs of numbers that satisfy an equation with two unknowns, Enumerate possibilities of combinations of two variables. <br> Generate and describe linear number sequences | SATS Revision | Problem solving |
| 2 | Number-Decimals/Addition Understand place value in numbers with three decimal places. <br> Add 2 or 3 amounts of money | Number-Multiplication <br> Use long multiplication to multiply 3 -digit numbers by numbers between 10 and 30. | Number-Addition and <br> Subtraction <br> : Add and subtract near multiples of powers of 10 including decimals (e.g. +/2.99, 3.02). <br> Use knowledge of the order | Number-Fractions, ratio and percentages <br> Describe ratios between unequal quantities, e.g. paint; Solve ratio problems, e.g. in context of recipes. <br> Find percentages, link to | SATS Revision | Problem solving |


|  | using column addition; Use rounding to check answers. |  | of operations and brackets to carry out calculations. <br> Explore the order of operations using brackets; for example, $2+1 \times 3=5$ and ( 2 $+1) \times 3=9$. <br> find change from $£ 100$; Use column addition to add several amounts. <br> Solve multi-step word problems; Use brackets to record the necessary calculations. | proportion |  |  |
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| 3 | Addition and subtraction <br> Add several prices, then find change from $£ 50$ and $£ 100$. <br> Use column subtraction (decomposition) to subtract 3-digit numbers and 4-digit numbers from 5-digit numbers | Number- x / + and - <br> Choose how to solve a mix of,,$+- \times$ and $\div$ mental and written calculations. <br> Choose which operation(s) are necessary to solve single-step and multi-step word problems. | Number-Decimals, Addition and subtraction <br> Place value addition and subtraction of numbers with 3 decimal places. <br> Multiply and divide by 10 , 100 and 1000 (answers from 3dp to 7-digit whole numbers). <br> Round decimals to the nearest whole, tenth and hundredth. | Number - Multiplication and Division <br> Use short multiplication to multiply 4-digit numbers by single-digit numbers. <br> Use long multiplication to multiply 3-digit numbers, then 4-digit numbers by numbers between 10 and 35; Use rounding to approximate. | SATS Revision | Problem solving |
| 4 | Number-Multiplication and division/Fractions <br> Find common multiples and factors. | Number-Fractions <br> Use common multiples to express fractions in the same denomination; Compare and order | Multiplication and division/Decimals <br> Solve problems involving rate. | Number - Multiplication and Division <br> Use short division to divide 4digit numbers by single-digit numbers, and 11 and 12; Divide | SATS Revision | Transition work |

[^0]|  | Find equivalent fractions; Simplify fractions using multiples and factors. <br> Compare and order fractions with unrelated denominators. | fractions with unrelated denominators. <br> Add fractions with unrelated denominators. <br> Subtract fractions with unrelated denominators | : Use mental strategies (factors and multiples) to multiply by 5, 20, 6, 4 and 8 ; Solve scaling problems. <br> Multiply and divide numbers with up to 2 dp, e.g. $0.4 \times 6$, $3.5 \div 7,5 \times 0.03,0.15 \div 3$. <br> Use long multiplication to multiply 3 -digit then 4 -digit numbers by numbers between 10 and 35 ; Use rounding to approximate. | remainders to give <br> fractions/decimals, round up or down. <br> Use long division to divide 3digit numbers by 2-digit numbers. |  |  |
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| 5 | Number-Multiplication <br> 5 digit and 6 digit numbers round to nearest 10,100 , $1000,10,000$ or 100,000. <br> Revise using short multiplication to multiply 4digit numbers by single-digit numbers; Round to approximate answers | Measures <br> Convert between grams and kilograms, millilitres and litres. <br> Know regularly used imperials units and approximate metric equivalents. <br> Read timetables using the 24-hour clock; calculate time intervals (at least 3 hours). | Fractions, Division <br> Revise comparing fractions Recognise equivalent fractions, decimals and percentages. Find percentages of amounts. <br> Use mental division strategies to find non-unit fractions of amounts. | Geometry <br> Plot points and draw polygons in all 4 quadrants. <br> Work out new co-ordinates after a translation or reflection. <br> Interpret and construct pie charts.. | Problem solving and investigations | Transition Work |
| 6 | Number -Fractions/Division Recognise fraction and decimal equivalents. <br> Use short division to divide 3/4-digit by 1-digt numbers and by 11 and 12; Round up | Geometry <br> Name parts of circles. <br> Classify and sort quadrilaterals. <br> .Know the totals of angles inside triangles and inside | Number-Fractions/Division <br> Multiply and divide fractions. <br> Use long division to divide 3digit numbers by 2-digit numbers. <br> Use long division to divide 3- | Measures <br> Find the area of triangles and parallelograms. <br> Recognise that shapes with the same areas can have different perimeters and vice versa. | Problem solving and investigations | Transition Work |

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