St John's Yearly Overview – Maths

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	**Getting to know you** **Just like me** Number: • Match & sort based on attributes (colour, size, shape, type etc.) • Compare amounts (more/less/fewer) Measure, shape & spatial thinking: • Compare size, mass & capacity (big/little/large/small) – use of balance scales • Exploring pattern (create simple repeating pattern)	**It's me 1, 2, 3!** Number: • Representing, comparing & composition of 1, 2 & 3 • Match numerals to names & quantities up to 4 • Mark making of 1, 2 & 3 • One more/less • Count by touching objects (without looking – abstraction principle) Measure, shape & spatial thinking: • Circles & triangles (curved/straight sides) • Positional language **Light & dark** Number: • Count to & back from 4	**Alive in 5** Number: • Introducing zero • Quantities can be more/less than or the same as another quantity • Comparing numbers to 5 (more/less) • Composition of 4 & 5 Measure, shape & spatial thinking: • Compare mass & capacity (2) • Estimate which is heavy before weighing (heavy, heavier than, heaviest, lighter, lighter than, lightest) • Explore capacity using different materials (sand, water, rice etc.) • Balancing number shapes (Numicon) using balance scales	**Building 9 & 10** Number: • Counting to 9 & 10 • Represent 9 & 10 in different ways • Comparing numbers to 10 by lining up objects • Number bonds to 10 Measure, shape & spatial thinking: • Construct 3D shapes • Introduced to names of 3D shapes and explore similarities & differences • Sort shapes • Match prints to shapes • Pattern (2) – more complex patterns which use items more than once (e.g. ABB, AABB, AABBB)	**To 20 and beyond** Number: • Consolidate key skills (subitising, counting, composition, sorting & matching, comparing & ordering) • Building numbers beyond 10 • Counting patterns beyond 10 Spatial reasoning: • Spatial reasoning (1) – geoboards & elastic bands • Match, rotate & manipulate shapes using block patterns **First, then, now** Number: • Adding more • Taking away • Use of first/then/now stories to support Spatial reasoning: • Spatial reasoning (2) – combine &	**Find my pattern** Number: • Doubling (use of doubles and non-doubles) • Sharing & grouping • Odd/even Spatial reasoning: • Spatial reasoning (3) – replicate simple constructions, models, places (real or from stories) • Visualise areas from unusual perspectives (photo taken from under table for e.g.) • Build models and arrangements **On the move** Number: • Deepening understanding – problem solving,

		• Match numerals to names & quantities up to 5 • Cardinal principle (final number read is the amount) • Representing numbers to 5 • One more/less Measure, shape & spatial thinking: • Shapes with 4 sides (sides/corners) • Time (night, day, morning, afternoon, today, tomorrow) • Calendar (birthdays)	**Growing 6, 7, 8** Number: • Counting to 6, 7 & 8 • Represent 6, 7 & 8 in different ways • Order & compare, noticing one more/less • Making pairs – introduce odd numbers • Combining 2 groups to find out how many altogether Measure, shape & spatial thinking: • Length & height (tall, short, longer, shorter, wider, narrower) • Time – describing events (now, before, later, soon, next)		separate to make new shapes • Build different shapes & explore different arrangements (tangrams) • Compose & decompose	critical thinking (could be linked to familiar stories or come from children's suggestions, real problems as they arise in play etc.) • Patterns & relationships - explore & investigate relationships between numbers & shapes (how many short blocks make a long block for e.g.) Spatial reasoning: • Spatial reasoning (4) – maps, mazes
Year 1	**Number: Place value (within 10)** • Sort based on attributes (colour, size, shape – same/different) • Count to 10 fluently (brings in different counting principles: one-to-one, cardinal, abstraction etc.)	**Number: Addition & subtraction (within 10)** • Parts/wholes • Number bonds within 10 • Add/subtract **Geometry: Shape** • Recognise, name & sort 3D shapes	**Number: Place value (within 20)** • Count, read & write numbers to 20 (numerals & words) • Represent numbers 11-20 • Tens & ones • One more/less • Compare groups	**Number: Place value (within 50)** • Count forwards & backwards within 50 • Represent numbers to 50 • One more/less • Compare & order within 50 • Count in 2s & 5s **Measurement: Length & height** • Comparing length & height	**Number: Multiplication & division** • Count in 2s & 5s up to 50 • Count in 10s • Make & add equal groups • Arrays • Doubles • Grouping/sharing	**Number: Place value (within 100)** • Count to 100 • Count forwards & backwards within 100 • Partitioning, comparing & ordering within 100 • One more/less

	• Represent & match numerals to objects • Recognise numerals as words • Count forwards & backwards within 10 • 1 more/less • Compare by matching (is there enough buckets for each person, for e.g.) • < > =	• Sort 3D shapes • Patterns with 2D & 3D shapes	• Order groups & numbers **Number: Addition & subtraction (within 20)** • Add making 10 • Subtraction crossing 10 • Related facts	• Using a ruler (cm) **Measurement: Mass & volume** • Measuring mass using cubes • Comparing mass • Measuring capacity using glasses of water • Comparing capacity	**Number: Fractions** • Finding halves & quarters **Geometry: Position and direction** • Describing turns (half, full, three-quarters) • Describing position (left, right, forwards, backwards, top, in between, bottom, above, below)	• Compare any two numbers **Measurement: Money** • Recognise coins and notes • Count in coins **Measurement: Time** • Before/after • Dates • Time to hour & half house • Writing time • Comparing time (faster, slower, earlier, later)
Year 2	**Number: Place value** • Revisit numbers to 20 and counting in 10s to 100 • Compare objects/numbers • Read, write & partition to 100 • Order objects & numbers • Counting in 2s, 5s, 10s & 3s	**Number: Addition & Subtraction** • Bonds to 100 (tens) • Related facts (2 + 3 = 5 so 20 + 30 = 50) • Add by making 10 • Add/subtract across & from a 10 • Subtraction 1-digit from 2-digits • Add/subtract 2-digit numbers • Estimate **Geometry: Shape**	**Measurement: Money** • Count coins & notes • Select money • Make the same amount • Compare money • Find the total, difference, change • Problems **Number: Multiplication & Division** • Recognise, make & add equal groups (repeated addition)	**Measurement: Length & height** • Measure length in cm & m • Compare and order lengths • Problems involving length (four operations) **Measurement: Mass, capacity & temperature** • Measure and compare mass, capacity & volume • Use units of millilitres & litres • Introduction to temperature & degrees Centigrade	**Statistics** • Make tally charts • Draw & interpret pictograms (including symbols representing 2, 5 & 10) • Draw block diagrams (similar to bar charts) **Number: Fractions** • Make equal parts • Recognise & find a half, quarter, third & three-quarters • Unit & non-unit fractions • Recognise & explore equivalence of two-quarters & one-half	**Problem solving** **Measurement: Time** • O'clock, quarter past/to, half past • Telling time to 5 minutes • Hours & days • Find & compare durations of time

		• Sides, faces, vertices on 2D/3D shapes • Lines of symmetry • Sort 2D shapes • Patterns with 2D & 3D shapes	• Understand and use the multiplication symbol • Explore arrays (commutative law) • 2, 5 & 10 times-table • Divide by sharing into equal groups • Divide by grouping • Divide by 2, 5 & 10		• Count in halves, quarters & thirds **Geometry: Position & direction** • Describe movement in a straight line (forwards, backwards, up, down, left, right) • Describe turns (full, half, quarter, three-quarter, clockwise, anti-clockwise) • Make patterns with shapes	
Year 3	**Number: Place value** • Represent & partition to 1,000 • Find 10, 100 & 1,000 more/less • Compare & order to 1,000 • Count in 50s **Number: Addition & subtraction** • Add two numbers (across 100) • Add 2-digit & 3-digit numbers • Subtract 2-digit from 3-digits • Inverse	**Number: Multiplication & division A** • Sharing & grouping • Multiply & divide by 3, 4 & 8 • 3 times-table • 2, 4 & 8 times-table	**Number: Multiplication & division B** • Related calculations (4 x 30 → 4 x 30) • Multiply 2-digits by 1-digit (repeated addition; explore column multiplication alongside concrete representations) • Divide 2-digits by 1-digit (partitioning into tens and ones, then sharing into equal groups) • Introduction to scaling (3 times as many boys as girls)	**Number: Fractions A** • Recapping work from Year 2 **Measurement: Mass and capacity** • Reading scales (kg & g) • Comparing mass • Add/subtract mass • Reading scales for capacity (l & ml) • Comparing capacity • Add/subtract capacity	**Number: Fractions B** • Making the whole (1/4 + 1/3 = one whole) • Tenths (as fractions, counting and as decimals) • Fractions on number line • Fractions of an amount (unit and non-unit) • Equivalent fractions • Comparing & ordering fractions • Adding/subtracting fractions (same denominator) **Measurement: Money** • Pounds & pence • Converting pounds & pence	**Measurement: Time** • Months/years • Hours in a day • Telling time to 5mins • Telling time to the minute • Am/pm • 24-hour clock • Comparing durations • Measuring time in seconds **Geometry: Shape** • Turns, angles, right angles • Comparing angles • Drawing straight lines accurately

			Measurement: Length and perimeter • Measuring lines (cm/mm) • Equivalent lengths (m and cm; cm and mm) • Comparing lengths (m, cm, mm) • Add/subtract lengths • Introduction to perimeter		• Add/subtract money • Change	• Horizontal, vertical, parallel & perpendicular • Properties of 2D & 3D shapes **Statistics** • Bar charts • Tables
Year 4	**Number: Place value** • Represent & partition to 10,000 • Find 100, 1,000 & 10,000 more/less • Compare & order to 10,000 • Roman numerals • Round to 10, 100, 1,000 **Number: Addition & subtraction** • Add/subtract two 4-digit numbers	**Measurement: Area** • What is area? • Count squares • Make shapes & compare areas **Number: Multiplication & division A** • Multiply & divide by 6, 9 & 7 • 3, 6 & 9 times-table • 2, 4 & 8 times-table • 11 & 12 times-table	**Number: Multiplication & division B** • Multiply 3 numbers • Factor pairs • Efficient mental methods • Short multiplication (3-digits by 1-digit) • Divide 3-digit by 1-digit with remainders **Measurement: Length and perimeter** • Measuring in cm/mm • Equivalent lengths • Comparing lengths	**Number: Fractions** • Equivalent fractions (move onto proportional reasoning rather than just strip diagrams) • Fractions greater than 1 • Proper/improper fractions • Add 2 or more fractions • Subtract fractions from a whole • Fractions of a quantity (unit and non-unit fractions) • Begin to 'find the whole' **Number: Decimals A** • Tenths & hundredths • Tenths as decimals • Dividing 1 & 2 digits by 10, 100.	**Number: Decimals B** • Making the whole with tenths and hundredths • Writing decimals & understanding value of each digit • Comparing & ordering decimals (2 dp) • Round numbers with 1 dp to nearest whole • ½ ¼ ¾ as decimals **Measurement: Money** • Pounds & pence • Ordering & estimating money • Four operations **Measurement: Time** • Hours, minutes & seconds	**Geometry: Shape** • Identifying angles (acute, obtuse, right angle) • Compare & order • Types of triangles • Name & describe properties of quadrilaterals • Lines of symmetry **Statistics** • Interpret charts • Comparison, sum & difference • Line graphs

			• Add/subtract lengths • Measuring & calculating perimeter •		• Years, months, weeks & days • Analogue to digital	**Geometry: Position & direction** • Introduction to co-ordinates • Introduction to translation on co-ordinates grid
Year 5	**Number: Place value** • Roman numerals to 1,000 • Read & write numbers to 1,000,000 • Find 100, 1,000, 10,000, 100,000 more/less • Partition, compare & order numbers to 1,000,000 • Round within 1,000,000 **Number: Addition & subtraction** • Add/subtract whole numbers with more than four digits • Multistep problems	**Number: Multiplication & division A** • Multiplies & common multiples • Factors & common factors • Prime, square & cube numbers • Multiply & divide by 10, 100 & 1,000 **Number: Fractions A** • Equivalent fractions • Convert improper fractions to mixed numbers and vice versa • Compare & order fractions less than and greater than 1 • Add & subtract fractions up to and greater than 1 • Add & subtract mixed numbers	**Number: Multiplication & division B** • Multiply 4-digits by 2-digit – area model and long multiplication • Divide 4-digits by 1-digit with remainders **Number: Fractions B** • Add & subtract fractions • Add & subtract mixed numbers • Multiply fractions by integers • Divide fractions by integers • Fractions of an amount • Making connection between fraction of/x amount (e.g. ¼ of 20 = ¼ x 20)	**Number: Decimals & percentages** • Decimals up to 2dp • Fraction, decimal equivalences • Thousandths as fractions/decimals • Ordering/comparing • Rounding to 1dp • Equivalent fractions/decimals/percentages • **Measurement: Area & perimeter** • Measure perimeter • Calculate area and perimeter • Area of compound and irregular shapes **Statistics** • Read, interpret & draw line graphs • Tables & timetables	**Geometry: Shape** • Measuring angles • Drawing lines & angles correctly • Calculating angles in a straight line & around a point • Properties of 3D shape **Geometry: Position & direction** • Co-ordinates • Translation • Reflection **Number: Decimals** • Adding & subtracting decimals • Decimal sequences	**Number: Negative numbers** • Count through zero in ones/multiples • Compare/order negative numbers • Find the difference **Measurement: Converting units** • Using kilograms and kilometres • Using millimetres and millilitres • Metric units • Imperial units • Converting units of time • Timetables **Measurement: Volume** • Compare & estimate volume • Estimate capacity

Year 6	**Number: Place value** • Read & write numbers to 10,000,000 • Compare & order any integers • Round any integer • Multiply & divide by powers of 10 • Negative numbers **Number: Addition, subtraction, multiplication & division** • Add & subtract integers • Factors, multiples, primes, squares & cube numbers • Multiply a 4-digit number by a 2-digit • Short & long division • Order of operations • Reason from known facts	**Number: Fractions A** • Equivalent & simplifying fractions • Compare & order • Add & subtract fractions & mixed numbers **Number: Fractions B** • Multiply fractions by integers & by fractions • Divide a fraction by an integer • Find fraction of an amount **Measurement: Converting units** • Convert & calculate with metric measures • Miles & kilometres • Imperial measures	**Number: Ratio** • Calculating ratio • Using scale factors • Ratio & proportion **Number: Algebra** • Two-step function machines • Expressions • Substitution • Formulae • Two-step equations • Pairs of values (multiple solutions)	**Number: Fractions, decimals & percentages** • Equivalents • Converting between FDP • Ordering FDP • Finding % of a quantity **Measurement: Area, perimeter & volume** • Shapes with same area • Calculate area and perimeter of rectilinear shapes (shapes with straight lines) • Area of triangles & parallelograms • Calculating volume of cuboids **Statistics** • Read & interpret line graphs & pie charts • Draw line graphs & pie charts • Parts of a circle • The mean average	**Geometry: Shape** • Measure with a protractors • Vertically opposite angles • Angles in a triangle • Angles in special quadrilaterals (trapezium, parallelogram etc.) • Angles in regular polygons • Draw shapes accurately • Draw nets of 3D shapes	