EDWARD WILSON PRIMARY SCHOOL

Maths Knowledge Organiser
Year 4

Autumn (14 weeks)	Spring (11 weeks)	Summer (13 weeks)
Number - 2 weeks	**Number – 1 week**	**Number - 2 weeks**
Know multiples of 10,100, 1000	Extend number sequences counting on or back in different steps including using multiplication and division.	Read Roman numerals to 100
Find 10, 100 or 1000 more or less than a number	Count in multiples of 6,7,9,25 and 1000	Identify and estimate numbers using different representations (156 = 100 + 50 +6 or 120 + 30 + 6)
Recognise the place value of each digit in a four-digit number	Count backwards through zero to include negative numbers	Solve inverse number problems
Read, write order and compare numbers beyond 1000	**Addition and Subtraction – 1 week**	**Addition and Subtraction - 2 weeks**
	Add and subtract a two digit number to/from a four digit number mentally	Solve two-step addition and subtraction problems in context
Round numbers to the nearest 10,100 or 1000	Check my answers using estimation and inverse operations (2451 - _____ =2000, 5684 + _____ = 5580	**Multiplication and Division - 2 weeks**
Addition and Subtraction - 2 weeks	**Multiplication and Division - 2 weeks**	Check my answers using number facts and rounding.
Add four-digit numbers including money using formal methods	Know my tables up to 12 x 12	Round up or down after division depending on the context. (A bus holds 12 children. If there are 61 children, how many buses are needed?)
Subtract from four-digit numbers including money using formal methods	Multiply two- and three- digit numbers by a one-digit number using a formal layout and apply to a range of problems including (2 step problems and missing numbers)	**Fractions and decimals - 3 weeks**
Multiplication and Division - 3 weeks	Divide two- and three- digit numbers by a one-digit number using a formal layout to include remainders and apply to a range of problems including (2 step problems and missing numbers)	Solve fractions problems
Know the multiples of 9	Find and use pairs of factors and multiples of two-digit numbers	Solve problems that involve subtracting whole numbers and decimals
Know the multiples of 6	**Fractions and decimals – 2 weeks**	Solve problems that involve adding whole numbers and decimals
Multiply and divide numbers mentally including 0 and 1	Find unit and non-unit fractions and apply to problems.	Recognise and write decimal equivalents to any number of tenths or hundredths. (1/10 = 0.1 2/10 = 0.2 1/100 = 0.01 2/100 = 0.02)
Multiply two- and three- digit numbers by a one-digit number using a formal layout	Add and subtract fractions with the same denominator	**Measurement - 2 weeks**
Divide two- and three- digit numbers by a one-digit number using a formal layout	Round decimals with one decimal place to the nearest whole number	Solve problems converting from hours to minutes, minutes to seconds years to months, weeks to days
Fractions and decimals - 3 weeks	Divide and multiply numbers- including decimal numbers- by 10 and by 100 and 1000	Read timetables and work out time durations
Recognise and show, using diagrams, families of common equivalent fractions.	Recognise and write decimal equivalents to tenths and hundredths for example 1/10 = 0.1 2/10 = 0.2 3/10 = 0.3	Solve problems involving the conversion between units of measurements for length, capacity and mass

Divide and multiply whole numbers by 10 and 100		Recognise and write decimal equivalents to ¼, ½, ¾ and place them on a number line.		**Geometry - 1 week**	
Order and compare fractions using <> =		**Measurement - 3 weeks**		Complete a simple symmetric figure with a line of symmetry at 45 and 90 degrees.	
Count up and down in hundredths- recognise that hundredths arise when dividing a single digit whole number by 100		Tell and write the time on an analogue and digital 24-hour clock to the nearest minute.		Understand compass directions and use grids to describe direction	
Compare and order numbers with decimal places that include tenths and hundredths. Eg 1.02 1.1 1.25		Convert units of measurement using length kilometres, metres and centimetres		Describe movements between positions as translations	
Measurement - 2 weeks		Convert units of measurement using mass – kilograms and grams		Plot specified points and draw sides to complete a given polygon	
Read scales and record to the nearest tenth		Convert units of measurement using volume/capacity		Find and describe a pattern or relationship	
Compare different measures (km-m; cm-m, cm-mm; gram –kg litre and ml.)		Measure and calculate the perimeter of a rectilinear figure in cm and metres.		**Statistics - 1 week**	
Estimate different measures including money				Think of questions and answer them by collecting data and analysing it	
Calculate money in pounds and pence		Measure the area of rectilinear shapes including counting squares		Solve comparison, sum and difference problems using statistical information	
Tell and write the time on an analogue and digital 12-hour clock to the nearest minute.		**Geometry – 1 week**			
Geometry – 1 week		Identify lines of symmetry in 2D shapes in different orientations.			
Compare and classify triangles- include isosceles, equilateral and scalene		Describe positions on a 2D grid as coordinates in the first quadrant			
Compare and classify regular and irregular quadrilaterals based on their properties and different sizes. (include rhombus, trapezium, parallelogram)		Recognise parallel and perpendicular lines in polygons.			
Identify right angled, acute and obtuse angles and compare and order angles by size.		**Statistics – 1 week**			
Statistics- - 1 week		Understand how scale affects the reading of a bar graph			
Sort using a Carroll diagram or a Venn diagram		Make a line graph to show changes over time			
Make a bar chart					

AFL starters to include:		
• Recognise the place value of each digit in a four-digit number • Recognise the place value of each digit in a four-digit number • Round numbers to the nearest 10,100 or 1000 • Order and compare fractions using <> = • Divide and multiply whole numbers by 10 and 100 • Compare and order numbers with decimal places • Read scales • Compare different measures	• Find and write number sequences • Count backwards through zero to include negative numbers • Check my answers using estimation and inverse operations • Find and use pairs of factors and multiples of two-digit numbers • Find unit and non-unit fractions • Add and subtract fractions with the same denominator • Divide and multiply numbers- including decimal numbers- by 10 and by 100 and 1000 • Round decimals with one decimal place to the nearest whole number	• Read Roman numerals to 100 • Recognise and write decimal equivalents to any number of tenths or hundredths. • Convert units of measurement • converting from hours to minutes, minutes to seconds years to months, weeks to days • Read timetables and work out time durations • Describe movements between positions as translations • Revisit compass directions and use grids to describe direction

• Compare and classify triangles and quadrilaterals • Identify angles • Tell and write the time on an analogue and digital 12-hour clock to the nearest minute. • **Arithmetic starters**	• Tell and write the time on an analogue and digital 24-hour clock to the nearest minute. • Convert units of measurement • Calculate the perimeter of a rectilinear figure • Measure the area of rectilinear shapes including counting squares • Identify lines of symmetry in 2D shapes • Describe positions on a 2D grid as coordinates in the first quadrant • Recognise parallel and perpendicular lines in polygons. • **Arithmetic starters**	• Interpret graphs • **Arithmetic starters**