Subject Theme Overview — Year 6 — Charlton Kings Junior School

Subject	Maths	Term	Autumn

Area	What I should already be able to do	What I will be able to do by the end of term
Numbers and the Number System	• Read, write, order and compare numbers **to at least 1,000,000** and determine the value of each digit • Read, write, order and compare numbers with **up to 3 decimal places** and multiply and divide whole numbers and those involving decimals **by 10, 100 and 1000** • Round **any whole number up to 1 000 000** to the nearest **10, 100, 1000, 10 000 and 100 000** and use this to check and present answers. • Interpret negative numbers in context and count forwards and backwards, including through zero	• Read, write, order and compare numbers **up to 10 000 000** and determine the value of each digit • Identify the value of each digit in **numbers given to three decimal places** and multiply and divide numbers by **10, 100 and 1000** giving answers up to three decimal places • Round **any whole number to a required degree of accuracy** and use this to check answers and present them to the required accuracy. • Use negative numbers in context, and calculate intervals across zero
Calculating: Addition, Subtraction, Multiplication and Order of Operations	• Add and subtract numbers **up to 1,000,000** and **decimals up to 3 decimal places** mentally or using written column methods as appropriate. • Multiply numbers **up to 4 digits** by a **one- or two-digit number** using **short or long multiplication**.	• Solve calculations and problems involving written and mental methods for addition, subtraction and multiplication as appropriate. • Multiply numbers **up to 4 digits** by a **two-digit whole number** using long multiplication • Multiply **one-digit numbers with up to two decimal places** by whole numbers
Measurement: Time	• Read, write and convert time between **analogue and digital 12- and 24-hour clocks** and convert between different **units of time**	• Use, read, write and convert between **standard units of time**.
Shape, Angles and Area	• Recognise and describe 3-D shapes. • Compare and classify 2D shapes, including distinguishing between regular and irregular polygons. • Identify angles at a point on a straight line (total 180°) • Calculate the area of **rectangles** (including squares).	• Recognise, describe and build simple 3-D shapes, including from **nets** • Compare and classify geometric shapes in different ways. • Find unknown angles in any **triangles** and **on a straight line**. • Calculate the area of **parallelograms** and **triangles** • Recognise when it is possible to use formulae for the area of shape.
Calculating: Division	• Divide mentally, using known facts and place value, including calculations with remainders • Divide numbers **up to 4 digits by a one-digit number** using short division	• Divide numbers **up to 4 digits by a one-digit number** using short division. • Divide numbers up to **4 digits by a two-digit whole number** using long division. • Interpret remainders as appropriate for the context.
Mathematical Movement	• Identify, describe and represent the position of a shape following a reflection.	• Draw simple shapes on the coordinate plane, and reflect them in the axes

Key Calculation Methods

Long Multiplication

	3	9	7	4
		x	2	3
1	1	9	2	2
~~1~~	~~2~~	~~2~~	~~1~~	
7	9	4	8	0
~~1~~	~~1~~			
9	1	4	0	2
~~1~~	~~1~~	~~1~~		

Long Division

			2	4
2	1	5	0	4
	-	4	2	
			8	4
		-	8	4
				0

Vocabulary:

Exchange, exchange digit, multiple, remainder, place holder

Number facts I must know

Addition facts
Within 10 and 20 e.g. 7 + 8 = 15

Subtraction facts
Within 10 and 20 e.g. 15 – 7 = 8

Multiplication facts
All times tables up to 12 x 12

Division facts
All times tables
e.g. 132 ÷ 11 = 12

Models, mnemonics and images that will be used to support my understanding

Place Value

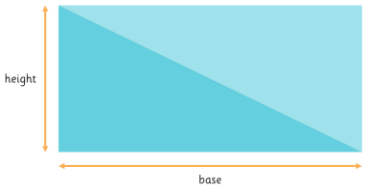
One Millions	Hundred Thousands	Ten Thousands	One Thousands	Hundreds	Tens	Ones	Decimal point	Tenths	Hundredths	Thousandths
							.			

Ready Reckoner

1x	42
2x	84
3x	126
4x	168
5x	210
6x	

Area Formulae

Area of a triangle = half the area of the rectangle = half of the base x height



Area of a parallelogram = the area of the rectangle = base x height