Core Knowledge				
1	Metric Conversions	3.5km = 3.5 x 1000 = 3500m  Multiply to go to a smaller unit of measure  56mm = 56 ÷ 10 = 5.6cm  Divide to go to a bigger unit of measure	Length: 1km = 1000m 1m = 1000mm 1m = 100cm 1cm = 10mm Mass: 1 tonne (t) = 1000kg 1kg = 1000g Capacity: 1 litre = 1000ml 1ml = 1cm <sup>3</sup>	
2	Mass	Metric units of mass include the gram (g) and the kilogram (kg).	The quantity of matter in an object. In everyday life mass is often called weight.	
3	Capacity	Metric units of capacity include the millilitre (ml) and the litre (l).	The volume that a container or solid can hold.	
4	Decimals	whole numbers  decimal fractions  Thousands  Thousands  Thousandths  Tenth and page 10 times larger than the place to its right.	Digits after the decimal point represent fractions. You can see the value of each digit in a place value table.	
5	Ascending	1 2 3 4 5 6 7 8 9	Gets higher - order from smallest to largest	
6	Descending	987654321	Gets lower - order from largest to smallest	
7	Rounding to whole numbers	rounds down rounds up 7 7.5 8	Look at the tenth, 5 or more round up	
8	Rounding to 1 decimal place	rounds down rounds up  3.1 3.15 3.2	Look at the hundredth, 5 or more round up	
9	Estimate		Estimate a calculation by rounding each number to a value which makes the calculation easy.	
10	Scale drawing	10 cm 1 cm = 1.5 metres	A scale drawing shows a large real-life measure in a small space. It needs a scale in order to be interpreted.	
11	Reading scales	100 20 20 20 20 500 520 540 560 580 600 mm	To read a scale, work out the value of a section by dividing the difference between the given numbers by the number of sections.	

12	Multiplying decimals	0.4 x 0.7	Use place value to rewrite calculations			
	mentally	$= 4 \times 7 \div 10 \div 10$	as equivalent calculations that you			
	,	= 0.28	know.			
13	Partitioning	$22 \times 3.4 = 20 \times 3.4 + 2 \times 3.4$	You can do a calculation in parts and			
		= 68 + 6.8 = 74.8	then add together.			
14	Order of magnitude		The approximate size of something. You can			
			check that the answer to a calculation is the			
			same order of magnitude by estimating.			
15	Related	Given 32.5 x 40.7 = 1322.75	You can use an answer to a decimal			
	multiplications	Then: 325 x 40.7 = 13227.5	multiplication to work out the answers			
		and 325 x 407 = 132275	using place value to related			
		and 3.25 x 40.7 = 132.275	multiplications.			
		and 0.325 x 40.7 = 13.2275 etc.	·			
16	Adding/subtracting	3 9 . <sup>7</sup> <b>8</b> <sup>1</sup> 2	Use written column methods to add and			
	decimals	- 8 . 5 4	subtract decimals. Line up the decimal			
		3 1 . 2 8	points.			
17	Multiplying decimals	5 6 56 × 4 = 224	Use the column method without the			
-	by whole numbers	× 4  ÷10  ÷10	decimal point, then use place value to			
	by whole numbers	$\frac{2 + 2 + 4}{2}$ 5.6 × 4 = 22.4	get the final answer.			
		Check: $5.6 \approx 6, 6 \times 4 = 24$	get the illaranswer.			
		22.4 is close to 24				
18	Dividing decimals by	2 4 . 5	Use short division to divide a decimal by			
	whole numbers	3)7 13 . 15	a whole number. Line up the decimal			
			point.			
19	Perimeter	8 cm	The perimeter is the total distance			
		4 cm	around the edge of a shape. Add up the			
		6 cm	lengths of all the sides.			
		P = 4 + 8 + 6 = 18 cm				
20	Area		The area is the total space covered by a			
			shape. The units for area are square			
		$\leftrightarrow$	units e.g. cm <sup>2</sup> , m <sup>2</sup>			
		1 cm Area = 6cm <sup>2</sup>	,			
21	Area of rectangles	A = lw	To work out the area of a rectangle or a			
		A	square, multiply the length by the			
		w	width.			
		<b>+</b>	The dimensions must be in the same			
			units of measure.			
22	Hectare		A hectare (ha) is mainly used as a			
			measure of land area.			
			1 ha = 100m x 100m = 10000m <sup>2</sup>			
23	Imperial units		1 foot ≈ 30cm			
			1 mile ≈ 1.6km			
_	Depth					
24	Milligrams		1g = 1000mg			
25	≠		Not equal to			