## Number- Fractions (Including decimals and percentages)

	COUNTING IN FRACTIONAL STEPS						
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
	Pupils should count in fractions up to 10, starting from any number and using the 1/2 and 2/4 equivalence on the number line (Non Statutory Guidance)	count up and down in tenths	count up and down in hundredths				
		RECOGNISI	NG FRACTIONS				
recognise, find and name a half as one of two equal parts of an object, shape or quantity	recognise, find, name and write fractions <sup>1</sup> / <sub>3</sub> , <sup>1</sup> / <sub>4</sub> , <sup>2</sup> / <sub>4</sub> and <sup>3</sup> / <sub>4</sub> of a length, shape, set of objects or quantity	recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators  recognise that tenths arise from dividing an object into 10 equal parts and in dividing one — digit numbers or quantities by 10.	recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten	recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence)			
recognise, find and	1	recognise and use					
name a quarter as one of four equal parts of an object, shape or quantity		fractions as numbers: unit fractions and non-unit fractions with small denominators					
		COMPARIN	IG FRACTIONS				
		compare and order unit fractions, and fractions		compare and order fractions whose denominators are all	compare and order fractions, including fractions >1		

	with the same	multiples of the	
	denominators	same number	

	COMPARING DECIMALS							
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6			
			compare numbers with the	read, write, order and compare	identify the value of each digit			
			same number of decimal	numbers with up to three decimal	in numbers given to three			
			places up to two decimal	places	decimal places			
			places					
			ROUNDING INCLUDING DEC	ROUNDING INCLUDING DECIMALS				
			round decimals with one	round decimals with two decimal places	solve problems which require			
			decimal place to the nearest	to the nearest whole number and to	answers to be rounded to			
			whole number	one decimal place	specified degrees of accuracy			
		EQUIVALENCE	(INCLUDING FRACTIONS, DECIN	MALS AND PERCENTAGES)				
	write simple fractions	recognise and	recognise and show, using	identify, name and write equivalent	use common factors to			
	e.g. $\frac{1}{2}$ of 6 = 3 and	show, using	diagrams, families of	fractions of a given fraction,	simplify fractions; use common			
	recognise the	diagrams,	common equivalent fractions	represented visually, including tenths	multiples to express fractions			
	equivalence of $^{2}/_{4}$ and	equivalent		and hundredths	in the same denomination			
	1/2.	fractions with small						
		denominators						
			recognise and write decimal	read and write decimal numbers as	associate a fraction with			
			equivalents of any number	fractions (e.g. $0.71 = {}^{71}/_{100}$ )	division and calculate decimal			
			of tenths or hundredths		fraction equivalents (e.g.			
				recognise and use thousandths and	0.375) for a simple fraction			
				relate them to tenths, hundredths and	(e.g. <sup>3</sup> / <sub>8</sub> )			
				decimal equivalents				
				decimal equivalents				
			recognise and write decimal	recognise the per cent symbol (%) and	recall and use equivalences			
			equivalents to 1/4; 1/2; 3/4	understand that per cent relates to	between simple fractions,			
				"number of parts per hundred", and	decimals and percentages,			
				write percentages as a fraction with	including in different contexts.			
	denominator 100 as a decimal fraction			_				
		Al	DDITION AND SUBTRACTION O	FRACTIONS				
Year :	1 Yea	ir 2	Year 3	Year 4 Year 5	Year 6			

add and subtract fractions with the same denominator within one whole (e.g. $\sqrt[3]{r}$ , $+\frac{1}{r}$ , $=\frac{5}{r}$ /s)  MULTIPLICATION AND DIVISION OF FRACTIONS  MULTIPLICATION AND DIVISION OF DECIMALS  Year 1  Year 2  Year 3  Year 4  Year 5  Year 6  multiply one-digit numbers add and subtract fractions with the same denominator and multiples of the same multiples of the same numbers, using the concept of equivalent fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number, susing the concept of equivalent fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $\sqrt{r}$ , $+\frac{r}{r}$ /s $-\frac{r}{r}$ /s $-\frac{r}{r}$ /s $-\frac{r}{r}$ /s supported by materials and diagrams  multiply proper fractions, writing the answer in its simplest form (e.g. $\sqrt{r}$ /s $-\frac{r}{r}$ /s $-\frac{r}{$					T			
denominator within one whole (e.g. $^{5}/_{7} + ^{1}/_{7} = ^{5}/_{5}$ )  whole (e.g. $^{5}/_{7} + ^{1}/_{7} = ^{5}/_{5}$ )  MULTIPLICATION AND DIVISION OF FRACTIONS  MULTIPLICATION AND DIVISION OF DECIMALS  Year 1  Year 2  Year 3  Year 4  Year 5  Year 6  multiples of the same number new form to the other and write mathematical statements > 1 as a mixed number (e.g. $^{2}/_{5} + ^{4}/_{5} = ^{6}/_{5} = 1^{4}/_{5}$ )  multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams  multiply simple pairs of proper fractions, writing the answer in its simplest numbers with up to two decimal places by whole numbers divide proper fractions by whole numbers (e.g. $^{3}/_{5} + ^{2}/_{5} = ^{4}/_{5} = ^{4}/_{5}$ )  multiply one-digit numbers whole numbers divide proper fractions by whole numbers (e.g. $^{3}/_{5} + ^{4}/_{5} = ^{4}/_{5}$ )			add and subtract fractions	add and subtract fractions	add and subtract fractions	add and subtract fractions		
whole (e.g. \$\frac{5}{7} + \frac{1}{7} = \frac{6}{7}\$)  multiples of the same number recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. \$\frac{7}{2} + \frac{4}{5} = \frac{7}{5}\$)  MULTIPLICATION AND DIVISION OF FRACTIONS  multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams  multiply ample pairs of proper fractions, writing whole numbers, supported by materials and diagrams  multiply once-digit numbers with up to two decimal places by whole numbers (e.g. \$\frac{1}{2} \times \frac{1}{2} \times								
Number   recognise mixed numbers and improper fractions   recognise mixed numbers and improper fractions   recognise mixed number   fractions   recognise mixed numbers   fractions   f				denominator				
recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $^2/_5 + ^4/_5 = ^6/_5 = 1^{12}/_5$ )  MULTIPLICATION AND DIVISION OF FRACTIONS  multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams  multiply ome-digit numbers with up to two decimal places by whole numbers  divide proper fractions by whole numbers (e.g. $^1/_3 \div 2 = ^1/_6$ )  MULTIPLICATION AND DIVISION OF DECIMALS  Year 1 Year 2 Year 3 Year 4 Year 5 Year 6  multiply one-digit numbers with up to two decimal places by whole numbers (e.g. $^1/_3 \div 2 = ^1/_6$ )			whole (e.g. ${}^{5}/_{7} + {}^{1}/_{7} = {}^{6}/_{7}$ )		l '			
and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. ²/₂ + ⁴/₅ = ⁶/₅ = 1²/₂)  MULTIPLICATION AND DIVISION OF FRACTIONS     Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams   multiply one-digit numbers with up to two decimal places by whole numbers								
MULTIPLICATION AND DIVISION OF FRACTIONS   multiply proper fractions and mixed numbers by whole numbers by whole numbers with up to two decimal places by whole numbers (e.g. \frac{1}{2} + \frac{1}{2} = \frac{1}{2} \frac{1}{2}})   multiply one-digit numbers (e.g. \frac{1}{2} + \frac{1}{2} = \frac{1}{2} \frac{1}{2}})   multiply one-digit numbers with up to two decimal places by whole numbers (e.g. \frac{1}{2} + \frac{1}{2} = \frac{1}{2} \frac{1}{2}})   multiply one-digit numbers with up to two decimal places by whole numbers (e.g. \frac{1}{2} + \frac{1}{2} = \frac{1}{2} \frac{1}{2}})   multiply one-digit numbers with up to two decimal places by whole numbers (e.g. \frac{1}{2} + \frac{1}{2} = \frac{1}{2} \frac{1}{2}})   multiply one-digit numbers with up to two decimal places by whole numbers with up to two decimal places by whole numbers with up to two decimal places by whole numbers with up to two decimal places by whole						fractions		
MULTIPLICATION AND DIVISION OF FRACTIONS   Multiply proper fractions, writing the answer in its simplest form (e.g. \( \frac{1}{2} \) \(								
$\frac{\text{MULTIPLICATION AND DIVISION OF FRACTIONS}}{\text{MULTIPLICATION AND DIVISION OF FRACTIONS}}$ $\frac{\text{MULTIPLICATION AND DIVISION OF FRACTIONS}}{\text{multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams}}{\text{multiply one-digit numbers with up to two decimal places by whole numbers}}$ $\frac{\text{MULTIPLICATION AND DIVISION OF DECIMALS}}{\text{Multiply order fractions, writing the answer in its simplest form (e.g.\ ^{1}/_{2} \approx ^{1}/_{2}) multiply one-digit numbers with up to two decimal places by whole numbers (e.g.\ ^{1}/_{3} \div 2 = ^{1}/_{6})$					l			
$\frac{\text{MULTIPLICATION AND DIVISION OF FRACTIONS}}{\text{MULTIPLICATION AND DIVISION OF FRACTIONS}}$ $\frac{\text{MULTIPLICATION AND DIVISION OF FRACTIONS}}{\text{multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams}}{\text{multiply one-digit numbers with up to two decimal places by whole numbers}}$ $\frac{\text{MULTIPLICATION AND DIVISION OF DECIMALS}}{\text{Year 1}}$ $\frac{\text{Year 2}}{\text{Year 3}}$ $\frac{\text{Year 4}}{\text{Year 5}}$ $\frac{\text{Year 5}}{\text{Year 6}}$ $\frac{\text{Multiply one-digit numbers with up to two decimal places by whole numbers}}{\text{Multiply one-digit numbers with up to two decimal places by whole numbers}}}$								
$\frac{\text{MULTIPLICATION AND DIVISION OF FRACTIONS}}{\text{MULTIPLICATION AND DIVISION OF FRACTIONS}}$ $\frac{\text{multiply proper fractions}}{\text{and mixed numbers by whole numbers, supported by materials}} = \frac{\text{multiply simple pairs of proper fractions, writing the answer in its simplest form } (e.g. \frac{1}{2}\sqrt{x} \cdot \frac{1}{2} = \frac{1}{8})}{\text{multiply one-digit numbers with up to two decimal places by whole numbers}}$ $\frac{\text{MULTIPLICATION AND DIVISION OF DECIMALS}}{\text{Year 1}} = \frac{\text{Year 5}}{\text{Year 6}}$ $\frac{\text{Year 6}}{\text{multiply one-digit numbers with up to two decimal places by whole of the proper fractions}}{\text{multiply one-digit numbers with up to two decimal places by whole numbers}}$								
MULTIPLICATION AND DIVISION OF FRACTIONS       multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams     multiply simple pairs of proper fractions, writing the answer in its simplest form $(e.g.\ \frac{1}{4} \times \frac{1}{2} = \frac{1}{6})$ multiply one-digit numbers with up to two decimal places by whole numbers       divide proper fractions by whole numbers (e.g. $\frac{1}{2} \div \frac{1}{2} \div \frac{1}{2} \div \frac{1}{2}$ Year 1     Year 3     Year 4     Year 5     Year 6       multiply one-digit numbers with up to two decimal places by whole numbers with up to t								
MULTIPLICATION AND DIVISION OF FRACTIONS  multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams  multiply open fractions, writing the answer in its simplest form (e.g. \(^1/2\) x^1/2=\(^1/6\)) multiply one-digit numbers with up to two decimal places by whole numbers  MULTIPLICATION AND DIVISION OF DECIMALS  Year 1 Year 2 Year 3 Year 4 Year 5 Year 6  multiply one-digit numbers (e.g. \(^1/6\)) multiply one-digit numbers with up to two decimal places by whole numbers with up to two decimal places by whole								
multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams multiply one-digit numbers with up to two decimal places by whole numbers (e.g. $^{1}/_{3} \div ^{1}/_{6}$ )  MULTIPLICATION AND DIVISION OF DECIMALS  Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 multiply one-digit numbers with up to two decimal places by whole numbers with up to two decimal places by whole numbers (e.g. $^{1}/_{3} \div ^{1}/_{6}$ )					$=1^{1}/_{5}$ )			
and mixed numbers by whole numbers, supported by materials and diagrams and diagrams and diagrams whole numbers with up to two decimal places by whole numbers $(e.g. \frac{1}{2} \times \frac{1}{2} = \frac{1}{6})$ multiply one-digit numbers (e.g. $\frac{1}{3} \div \frac{1}{2} = \frac{1}{6}$ )  MULTIPLICATION AND DIVISION OF DECIMALS  Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 multiply one-digit numbers with up to two decimal places by whole numbers with up to two decimal places by whole			MULTIPLICATION AND D	DIVISION OF FRACTIONS				
whole numbers, supported by materials and diagrams $\frac{1}{2} \frac{1}{2} \frac$								
supported by materials and diagrams								
multiply one-digit numbers with up to two decimal places by whole numbers  divide proper fractions by whole numbers (e.g. 1/3 ÷ 2 = 1/6)  MULTIPLICATION AND DIVISION OF DECIMALS  Year 1 Year 2 Year 3 Year 4 Year 5 Year 6  multiply one-digit numbers with up to two decimal places by whole					l '	·		
numbers with up to two decimal places by whole numbers  divide proper fractions by whole numbers (e.g. \(^1/_3\div \)2 = \(^1/_6\))  MULTIPLICATION AND DIVISION OF DECIMALS  Year 1 Year 2 Year 3 Year 4 Year 5 Year 6  multiply one-digit numbers with up to two decimal places by whole								
decimal places by whole numbers  divide proper fractions by whole numbers (e.g. \(^1/_3\div 2 = ^1/_6\)  MULTIPLICATION AND DIVISION OF DECIMALS  Year 1 Year 2 Year 3 Year 4 Year 5 Year 6  multiply one-digit numbers with up to two decimal places by whole					and diagrams			
MULTIPLICATION AND DIVISION OF DECIMALS  Year 1 Year 2 Year 3 Year 4 Year 5 Year 6  multiply one-digit numbers with up to two decimal places by whole						·		
MULTIPLICATION AND DIVISION OF DECIMALS   Year 1								
MULTIPLICATION AND DIVISION OF DECIMALS  Year 1 Year 2 Year 3 Year 4 Year 5 Year 6  multiply one-digit numbers with up to two decimal places by whole								
MULTIPLICATION AND DIVISION OF DECIMALS  Year 1 Year 2 Year 3 Year 4 Year 5 Year 6  multiply one-digit numbers with up to two decimal places by whole						whole numbers (e.g. ½;		
Year 1 Year 2 Year 3 Year 4 Year 5 Year 6  multiply one-digit numbers with up to two decimal places by whole						$2 = \frac{1}{6}$		
Year 1 Year 2 Year 3 Year 4 Year 5 Year 6  multiply one-digit numbers with up to two decimal places by whole								
Year 1 Year 2 Year 3 Year 4 Year 5 Year 6  multiply one-digit numbers with up to two decimal places by whole								
multiply one-digit numbers with up to two decimal places by whole								
numbers with up to two decimal places by whole	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
decimal places by whole								
		1						
numbers						. ,		
						numbers		

			find the effect of dividing		multiply and divide
			a one- or two-digit		numbers by 10, 100 and
			number by 10 and 100,		1000 where the answers
			identifying the value of		are up to three decimal
			the digits in the answer as		places
			ones, tenths and		
			hundredths		
					identify the value of each
					digit to three decimal
					places and multiply and
					divide numbers by 10, 100
					and 1000 where the
					answers are up to three
					decimal places
					associate a fraction with
					division and calculate
					decimal fraction
					equivalents (e.g. 0.375)
					for a simple fraction
					(e.g. <sup>3</sup> / <sub>8</sub> )
					use written division
					methods in cases where
					the answer has up to two
					decimal places
			SOLVING		
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		solve problems that	solve problems involving	solve problems involving	
		involve all of the above	increasingly harder	numbers up to three	
			fractions to calculate	decimal places	
			quantities, and fractions		
			to divide quantities,		

		including non-unit		
-		fractions where the		
		answer is a whole number		
		solve simple measure and	solve problems which	
-		money problems involving	require knowing	
-		fractions and decimals to	percentage and decimal	
-		two decimal places.	equivalents of $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{5}$ ,	
-			$^{2}/_{5}$ , $^{4}/_{5}$ and those with a	
-			denominator of a multiple	
١			of 10 or 25.	