

Stage	CDM Ref.	Small Steps	Fractions, Decimals and Percentages
1	1.10	Recognise a half as one of two equal parts of an object or shape	
		Find $\frac{1}{2}$ of objects	
		Find $\frac{1}{2}$ of an amount	
		Recognise a quarter as one of four equal parts of an object or shape	
		Find $\frac{1}{4}$ of objects	
		Find $\frac{1}{4}$ of an amount	
2	2.10	Find $\frac{1}{3}$ of objects	
		Find $\frac{1}{3}$ of an amount	
		Recognise two quarters as two of four equal parts, or two of one quarter of a shape and use fraction notation	
		Find $\frac{2}{4}$ of objects	
		Find $\frac{2}{4}$ of an amount	
		Recognise that a half is equivalent to two quarters	
		Recognise three quarters as three of four equal parts, or three of one quarter of a shape and use fraction notation	
		Find $\frac{3}{4}$ of objects	
		Find $\frac{3}{4}$ of an amount	
3	3.6	Recognise and represent unit fractions	
		Recognise and represent non-unit fractions	
		Compare two proper fractions which have the same denominator	
		Order a set of proper fractions which have the same denominator	
		Compare two unit fractions	
		Order a set of unit fractions	
		Compare two proper fractions which have the same numerator >1 (small denominator)	
		Order a set of proper fractions which have the same numerator >1 (small denominator)	
		Recognise and show equivalent proper fractions (denominators multiples of each other)	
	3.11	Find unit fractions of a number of objects	
		Find unit fractions of an amount	
		Find non-unit fractions of a number of objects	
		Find non-unit fractions of an amount	
		Add fractions with the same denominator within one whole	
		Subtract fractions with the same denominator within one whole	
4	4.11	Recognise that hundredths arise from dividing a number (or object) into one hundred equal parts and dividing tenths by ten	
		Read and represent a number with 2 decimal places	
		Count up in hundredths	
		Count down in hundredths	
		Divide a one-digit number by 100	
		Divide a two-digit number by 10	
		Divide a two-digit number by 100	
		Compare numbers with 1dp	
		Compare numbers with 2dp	
		Order numbers with the same number of decimal places	
		Round numbers with 1dp to nearest whole number	
		4.12	Add fractions with the same denominator within and beyond one whole
	Subtract fractions with the same denominator within and beyond one whole		
	Calculate a unit fraction of an amount when the answer is a whole number		
	Calculate a non-unit fraction of an amount when the answer is a whole number		
	Identify equivalent fractions using diagrams		
	Find families of equivalent fractions		
	4.13	Know and use the decimal equivalents to $\frac{1}{4}$ , $\frac{1}{2}$ , $\frac{3}{4}$	
		Use mental strategies to add numbers with 1 dp	
		Use mental strategies to add numbers with 2 dp	
		Use columnar addition for numbers with 2 decimal places with regrouping (carrying) required	
Use mental strategies to subtract numbers with 1 dp			
Use mental strategies to subtract numbers with 2 dp			
Use columnar subtraction for numbers with 2 decimal places with exchanging required			

**Fractions, Decimals and Percentages**

5	5.2	Recognise that thousandths arise from dividing a number (or object) into one thousand equal parts and dividing hundredths by ten	
		Read a number with three decimal places	
		Represent decimal numbers with up to 3 decimal places	
		Write decimal equivalents of any number of thousandths	
		Identify decimal numbers, with up to 3 decimal places, on a number line	
		Position decimal numbers, with up to 3 decimal places, on a number line	
		Compare a set of numbers written to three decimal places	
		Order decimal numbers with 3 decimal places	
		Compare numbers with a mixed number of decimal places	
		Order numbers with a mixed number of decimal places	
		Round numbers with two decimal places to one decimal place	
		Round numbers with two decimal places to the nearest whole number	
		5.9	Identify equivalent fractions represented visually
			Compare fractions whose denominators are multiples of the same number
Order fractions whose denominators are multiples of the same number			
Represent tenths and hundredths			
Write a number less than 1 with one decimal place as a fraction			
Write a number less than 1 with two decimal places as a fraction			
Write a number less than 1 with three decimal places as a fraction			
Understand that per cent relates to number of parts per hundred			
Write any percentage as a fraction with a denominator of 100			
Write any percentage as a decimal			
Know percentage equivalents of $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{5}$ , $\frac{2}{5}$ , $\frac{4}{5}$			
Establish percentage equivalents of fractions with a denominator of multiples of 10			
Establish percentage equivalents of fractions with a denominator of multiples of 25			
5.11a	Convert a mixed number into an improper fraction		
	Convert an improper fraction into a mixed number		
	Add proper fractions denominator multiples within the whole		
	Add proper fractions denominator multiples = mixed number answer		
	Add mixed number and proper fraction, same denominator = mixed number answer		
	Add mixed number and proper fraction, same denominator = mixed number answer (beyond whole)		
	Add mixed number and proper fraction, denominator multiples = mixed number answer		
	Add mixed number and proper fraction, denominator multiples = mixed number answer (beyond whole)		
5.11b	Subtract proper fraction from mixed number, same denominator within the whole		
	Subtract proper fraction from mixed number, same denominator (across whole)		
	Subtract proper fractions, denominator multiples within the whole		
	Subtract proper fractions from mixed number, denominator multiples within the whole		
	Subtract proper fractions from mixed number, denominator multiples (across whole)		
5.11c	Multiply unit fraction by a whole number		
	Multiply non-unit fraction by a whole number		
	Multiply mixed number by a whole number		
	Multiply mixed number by a whole number (beyond whole)		
6	6.2	Identify the value of digits in decimal numbers	
		Multiply decimals by 10	
		Multiply decimals by 100	
		Multiply decimals by 1000	
		Divide decimals by 10	
		Divide decimals by 100	
		Multiply decimals (1d.p.) by a 1-digit number	
		Multiply decimals (2d.p.) by a 1-digit number	
	6.5	Use common factors to simplify fractions	
		Use common multiples to find equivalent fractions	
		Compare proper fractions	
		Compare fractions, including fractions > 1	
		Order proper fractions	

**Fractions, Decimals and Percentages**

	Order fractions, including fractions > 1
	Calculate decimal equivalents of fifths, eighths and tenths
	Know simple fractions and decimal equivalences for 10%, 20%, 25%, 50%, 75%, 100%
	Find equivalencies between simple fractions, decimals and percentages
6.9a	Add proper fractions (denominators not multiples of each other) within the whole
	Add proper fractions (denominators not multiples of each other) beyond the whole (mixed number answer)
	Add mixed number and proper fractions (denominators not multiples of each other) fractions within whole (mixed number answer)
	Add mixed and proper fractions (denominators not multiples of each other) fractions beyond the whole (mixed number answer)
	Add mixed numbers (same denominators), fractions within and beyond the whole (mixed number answer)
	Add mixed numbers (denominators multiples of each other) fractions within the whole (mixed number answer)
	Add mixed numbers (denominators multiples of each other) fractions beyond the whole (mixed number answer)
	Add mixed numbers (denominators not multiples of each other) fractions within the whole (mixed number answer)
	Add mixed numbers (denominators not multiples of each other) fractions beyond the whole (mixed number answer)
6.9b	Subtract proper fractions (denominators not multiples of each other) within the whole
	Subtract proper fractions from mixed numbers, fractions within the whole (denominators not multiples of each other)
	Subtract proper fractions from mixed numbers, fractions across the whole (denominators not multiples of each other)
	Subtract mixed number from mixed numbers (same denominators), fractions within the whole
	Subtract mixed number from mixed numbers (same denominators), fractions across the whole
	Subtract mixed number from mixed numbers (denominators multiples of each other), fractions within the whole
	Subtract mixed number from mixed numbers (denominators multiples of each other), fractions across the whole
	Subtract mixed number from mixed numbers (denominators not multiples of each other), fractions within the whole
	Subtract mixed number from mixed numbers (denominators not multiples of each other), fractions across the whole
6.9c	Multiply simple pairs of proper fractions
	Divide unit fraction by whole number
	Divide fraction by whole number (numerator = divisor)
	Divide fraction by whole number (numerator = multiple of divisor)
	Divide fraction by whole number (numerator not a multiple of divisor)
6.11	Find 10%, 25%, 50% and 75% of an amount
	Find simple percentages of an amount (multiples of 10% and 5%)
	Find complex percentages of an amount (eg 17%, 28%, 63%)
	Use percentages to make comparisons
	Find the value of the parts, given the whole
	Find the value of the whole and parts, given one part
	Use scale factors to calculate dimensions in similar shapes