Key Stage 3
Subject Assessment Criteria: Math Year 8

Level	Assessment Descriptor											
Year 8	Unit 1		Unit 2		Unit 3		Unit 4		Unit 5		Unit 6	
%	Lower	Higher	Lower	Higher	Lower	Higher	Lower	Higher	Lower	Higher	Lower	Higher
9				90-100				81-100				
8				83-89				72-80				
7		84-100		75-82				61-71				
6	92-100	75-83	89-100	67-74		94-100		50-60				
5	75-91	48-74	78-88	33-66		87-93	87-100	38-49				
4	62-74	16-47	66-77	27-32	84-100	54-86	81-86	15-38				
3	40-61	0-15	38-65	1-26	20-83	7-53	39-80	4-14				
2	0-39		31-37		1-19	1-6	7-38	1-3				
1			1-30				1-6					

To achieve each level the above percentage of the learning outcomes needs to have been achieved.

Year 8 Unit 1		Year 8 Unit 2		Year 8 Unit 3	
Topic	**Learning Objective**	**Topic**	**Learning Objective**	**Topic**	**Learning Objective**
Data		**Data**		**Number**	
Processing data		Presenting and Interpreting Data		Fractions	
Types of data	discrete/continuous	Frequency tables	data collection sheets/tally charts	Understanding fractions	finding a fraction
	qualitative/quantitative		from a tally		equivalent fractions
Averages and spread from a list	find mean, median, mode		two way tables		simplifying fractions
	best average to use	Frequency diagrams	pictograms		improper fractions/ mixed numbers
	averages in reverse		bar charts		comparing/ordering fractions
	use (N+1)/2 to find median		bar charts (time series)	Calculating with fractions	adding and subtracting like
	find range		pie charts		adding and subtracting unlike
	LQ, UQ, IQR		frequency polygons		adding and subtracting mixed numbers
	grouped frequency tables (discrete data)		histograms with equal intervals		multiplying fractions
	grouped frequency tables (continuous data)		histograms with unequal intervals		multiplying mixed numbers
Averages from a frequency table	mean		cumulative frequency diagrams		cancelling before multiplying
	median		box and whisker from cf diagrams		dividing fractions
	mode	Collecting Data			fraction of an amount
Averages from a grouped frequency table	estimate of mean	Planning	data handling cycle		fractions on a calculator
	estimate of median		formulate a hypothesis	Percentages	
	find modal class		primary and secondary data sources	Non-calculator percentages	find a percentage (make out of 100)
Comparing data sets	using averages and spread		(questionnaires)		percentage of an amount (building block)
Box and whisker plots	draw a box and whisker	Sampling	bias		percentage change (building block)
	compare averages and spread		random, systematic		simple interest
			stratified	Fractions/Decimals/Percentages	
			(Stem and Leaf Diagrams)	Decimal - Percentage	multiply/divide by 100
				Fraction to Decimal	use equivalent fractions to make denominator a power of 10
					divide numerator by denominator
					mixed numbers to decimals
					terminating decimals

Year 8 Unit 1		Year 8 Unit 2		Year 8 Unit 3	
					recurring decimals
					on a calculator*
				Decimal to fraction	make fraction using place value
					decimal to mixed number
					on a calculator*
				Ordering FDP	convert to common format and compare

Year 8 Unit 4		Year 8 Unit 5		Year 8 Unit 6	
Topic	**Learning Objective**	**Topic**	**Learning Objective**	**Topic**	**Learning Objective**
Data		**Number**		**Algebra**	
Probability		Estimation and accuracy		SITiM	
Theoretical Probability	probability line	Rounding	powers of 10	Expressions 1	interpret numerical expressions using area and word representations
	as a fraction		decimal places		recognise the order of operations when evaluating numerical expressions
	listing outcomes/sample space		significant figures		understand commutative, associative, distributive laws
	using a tree diagram		upper and lower bounds	Expressions 2	writing in algebraic form
	non replacement	Estimating and checking	ways to check answers		substitution
	conditional probability		mental estimate with 1 sf		expanding brackets - single brackets
	mutually exclusive (using OR rule)		use of nearest square		expanding brackets - double brackets
	exhaustive events	Exact calculations	working and leaving answers as fractions/surds	Real life formulae	taxi hire, mobile phone bill, exchange rates
	independent (using AND rule)		Terminating/recurring decimals		from science and technology
Experimental probability	finding experimental probability	Percentages			area, volume, SA formulae
	estimate of probability	Calculator percentages	find a percentage		sides of a polygon, interior sum
	relative frequency		percentage of an amount	Approximate solutions by Iteration	Decimal Search
	relative frequency diagrams		change as a percentage/profit		
Venn diagrams	drawing		multipliers		
Set Notation	e.g. D = {*x*:1<x<3}		percentage change (multipliers)		
	finding probabilities		reverse percentages		
Number			compound interest		
Fractions			repeated percentage change		
Probability fractions	finding a probability as a fraction	Powers and roots			
	tree diagrams (same denominator)	Indices	3 index laws (whole powers)		
	probability OR rule (add fractions)		negative and fractional powers		
	probability AND rule (multiply fractions)		reciprocals		
		Standard form	writing numbers in standard form		
			reading numbers in standard form		
			calculating in standard form		