Queen's Park High School Key Stage 3 Assessment Mathematics - NUMBER

Year 9	Working Towards	Evidence	Meeting	Evidence	Exceeding	Evidence
Basic skills	Interpret standard form A x 10^n (where A is an integer 1 to 10) Round numbers & measures to several sf or dp		Use of inequality signs to specify error intervals Apply and interpret limits of accuracy.		Apply and interpret limits of accuracy, including upper and lower bounds	
Calculations	Perform calculations with integers, fractions, decimals and mixed numbers with both positive and negative numbers Calculate exactly with fractions Apply systematic listing strategies.		Calculate with roots and integer indices Calculate exactly with multiples of π Calculate with standard form A x 10^n (where A is an integer between 1 and 10)		Estimate powers and roots of any given positive number Calculate with roots, and with fractional indices Calculate exactly with surds	
Fraction/ decimal/%	Identify and work with fractions in ratio problems Calculate exactly with fractions Work interchangeably with terminating decimals Interpret fractions and percentages as operators		Work interchangeably with terminating decimals in more complicated situations Interpret fractions , decimals and percentages as operators		Change recurring decimals into their corresponding fractions and vice versa	
Ratio/ proportion	Relate ratios to fractions an d linear functions Use scale factors Compare length, areas, volume in ratio context Work with % greater than 100		Change freely between compound units in numerical and algebraic form Use compound units such as density and pressure Interpret the gradient of a straight line graph (as rate of change)		Make links to similarity (Inc Trig Ratios) and scale factors Understand inverse proportionality (1/Y) Recognise and interpret equations and graphs showing proportionality Interpret the gradient as a proportion	
Communication	Explain concisely the reasoning behind the concepts Apply ratio to real contexts		Solve problems involving direct and indirect proportion		Set up and solve equations and explain the process Develop Success Criteria	
Year 8						
Basic skills	Understand place value (large and small) Order positive and negative integers, fractions, decimals		Interpret standard form A x 10^n (where A is an integer 1 to 10) Round numbers and measures to several sf or dp		Use of inequality signs to specify error intervals Apply and interpret limits of accuracy.	
Calculations	Perform calculations with integers, fractions, decimals and mixed numbers Use = ≤ ≥ ≠ etc Use notation for priority of operations inc brackets Use concepts of prime ,LCM, HCF etc Use positive integer powers and associated real roots, recognise powers of 2, 3, 4, 5 Recognise inverse relationships		Perform calculations with integers, fractions, decimals and mixed numbers with both positive and negative numbers Calculate exactly with fractions Apply systematic listing strategies.		Calculate with roots and integer indices Calculate exactly with multiples of π Calculate with standard form A x 10^n (where A is an integer between 1 and 10)	
Fractions/decimal / %	Compare and order positive and negative fractions and decimals Competently use 4 operations with fractions and decimals		Identify and work with fractions in ratio problems Calculate exactly with fractions Work interchangeably with terminating decimals Interpret fractions and percentages as operators		Work interchangeably with terminating decimals in more complicated situations Interpret fractions , decimals and percentages as operators	
Ratio /Proportion	Express quantities as ratio of each other Divide quantities using ratio Define % as per hundred Compare quantities using %		Relate ratios to fractions an d linear functions Use scale factors Compare length, areas, volume in ratio context Work with % greater than 100		Change freely between compound units in numerical and algebraic form Use compound units such as density and pressure Interpret the gradient of a straight line graph (as rate of change)	

Communication	Accurate use of vocabulary of prime ,LCM, HCF etc Solve problems involving % change/increase/decrease		Explain concisely the reasoning behind the concepts Apply ratio to real contexts		Solve problems involving direct and indirect proportion	
Year 7						
Basic skills	Read, write, compare and order numbers Use negative numbers Round whole numbers		Understand place value (large and small) Order positive and negative integers, fractions, decimals		Interpret standard form A x 10^n (where A is an integer 1 to 10) Round numbers and measures to several sf or dp	
Calculations	Perform mental calculations with mixed operations and large numbers Add, subtract, multiply and divide 4 digits by 2 digits Understand order of operations Identify factors, multiples and primes Use estimation to check answers		Perform calculations with integers, fractions, decimals and mixed numbers Use = ≤ ≥ ≠ etc Use notation for priority of operations including brackets Use concepts of prime ,LCM, HCF etc Use positive integer powers and associated real roots, recognise powers of 2, 3, 4, 5 Recognise inverse relationships		Perform calculations with integers, fractions, decimals and mixed numbers with both positive and negative numbers Calculate exactly with fractions Apply systematic listing strategies.	
Fraction/decimal /%	Compare and order fractions Recognise equivalent fractions Add and subtract simple fractions Multiply and divide fractions and decimals		Compare and order positive and negative fractions and decimals Competently use 4 operations with fractions and decimals		Identify and work with fractions in ratio problems Calculate exactly with fractions Work interchangeably with terminating decimals Interpret fractions and percentages as operators	
Ratio/proportion	Solve simple ratio/% problems Understand concept of sharing in ratio		Express quantities as ratio of each other Divide quantities using ratio Define % as per hundred Compare quantities using %		Relate ratios to fractions an d linear functions Use scale factors Compare length, areas, volume in ratio context Work with % greater than 100	
Communication	Solve number and practical problems using above skills		Accurate use of vocabulary of prime ,LCM, HCF etc Solve problems involving % change/increase/decrease		Explain concisely the reasoning behind the concepts Apply ratio to real contexts	