Alan Adams, Y7DEMO (Page 1 of 2) DEMO HIGH SCHOOL 22 September 2009

Solve increasingly demanding problems and evaluate solutions; rumber, algebra, shape, space and measures, and handling data; refine or extend the mathematics used to generate fuller is outcomed to generate fuller is outcomed. So were sensor for choice of presentation, explaining selected features and showing insight into the problems structure. *Justify generalisations, arguments or solutions are appropriated as a continuous of the class of a point that the moves according to a given rule, both by reasoning and by using ICT. Recognise that measurements given to the nearest whole unit may be inaccurate by up to one half of the unit in either direction. *Understand and use measurements given to the nearest whole unit may be inaccurate by up to one half of the unit in either direction. *Understand and use measurements given to the nearest whole unit may be inaccurate by up to one half of the unit in either direction. *Understand and use measurements given to the nearest whole unit may be inaccurate by up to one half of the unit in either direction. *Understand and use measures of speed (and other compound measures of speed of any properties of any special to the fine of enquiry may be inaccurated by up to one half of the unit in either direction. *Understand relative frequency sa an estimate of protocomy and measures of a specific the distributions and measures of a deverage and many interesting the direction of a major properties. *Solve geometrical problems using properties of angles, of parallel and intersecting lines, and of transgles and other polygons of efficient techniques, methods and resources, including ICT; give solutions to an appropriate degree of accuracy. *Interpret, discusses and carry through substantial tasks by breaking upon properties of angles, of parallel and intersecting piles, and of transgles and antimopile is 180 degrees. *Present a concise, reasoned argument, using symbols, diagrams, graphs and related explanation forms. *Present a concise, reasoned argument, using symbols, diagrams		Using and applying mathematics	Shape, space and measure	Handling data
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	Algebra	Numbers and the number system	Calculating
Level	Square a linear expression, and expand and simplify the product	Understand and use proportionality	Calculate the result of any proportional change using
7	of two linear expressions of the form (x+/-n) and simplify the		multiplicative methods
	corresponding quadratic expression		Understand the effects of multiplying and dividing by numbers
	• Use algebraic and graphical methods to solve simultaneous linear		between 0 and 1
	equations in two variables		Add, subtract, multiply and divide fractions
	Solve inequalities in one variable and represent the solution set		• Make and justify estimates and approximations of calculations;
	on a number line		estimate calculations by rounding numbers to one significant
	Use formulae from mathematics and in other subjects; substitute		figure and multiplying and dividing mentally
	numbers into expressions and formulae; derive a formula and, in		Use a calcuator efficiently and appropriately to perform complex
	simple cases, change its subject		calculations with numbers of any size, knowing not to round
	Find the next term and nth term of quadratic sequences and		during intermediate steps of a calculation
	functions and explore their properties		
	Plot graphs of simple quadratic and cubic functions		
Level	Use systematic trial and improvement methods and ICT tools to	Use the equivalence of fractions, decimals and percentages to	Calculate percentages and find the outcome of a given
6	find approximate solutions to equations	compare proportions	percentage increase or decrease
	Construct and solve linear equations with integer coefficients,		• Divide a quantity into two or more parts in a given ratio and solve
	using an appropriate method		problems involving ratio and direct proportion
	Generate terms of a sequence using term-to-term and		Use proportional reasoning to solve a problem, choosing the
	position-to-term definitions of the sequence, on paper and using		correct numbers to take as 100%, or as a whole
	ICT; write an expression to describe the nth term of an arithmetic		Add and subtract fractions by writing them with a common
	sequence		denominator, calculate fractions of quantities (fraction answers),
	• Plot the graphs of linear functions, where y is given explicitly in		multiply and divide an integer by a fraction
	terms of x; recognise that equations of the form y=mx+c		
	correspond to straight-line graphs		
	Construct functions arising from real-life problems and plot their		
	corresponding graphs; interpret graphs arising from real situations		
Level	Construct, express in symbolic form, and use simple formulae	Use understanding of place value to multiply and divide whole	Use known facts, place value, knowledge of operations and
5	involving one or two operations	numbers and decimals by 10, 100 and 1000 and explain the effect	brackets to calculate including using all four operations with
	Use and interpret coordinates in all four quadrants	Round decimals to the nearest decimal place and order negative	decimals to two places
		numbers in context	Use a calculator where appropriate to calculate
		Recognise and use number patterns and relationships	fractions/percentages of quantities/measurements
		Use equivalence between fractions and order fractions and	Understand and use an approporiate non-calculator method for
		decimals	solving problems that involve multiplying and dividing any three
		Reduce a fraction to its simplest form by cancelling common	digit number by any two digit number
		factors	()
		()	
	Level: 7C	Level: 7A	Level: 8B

OVERALL LEVEL: 7C