

Felpham Community College – Key Stage 3 Overview

Subject: Maths	Year: 8	Leader: M Ballantyne
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Autumn Term 1	Activities	G&T extension topics
Topic: Treasure maps	Estimating and measuring distances, drawing and measuring bearings, using a variety of scales. Bisectors of angles and lines.	Loci in context on maps.
Restaurant	Ratio and proportion, including recipes, metric conversions, unitary method.	Multi-step questions. Inverse proportion.
		Assessment Plans Topic assessment.
Literacy/Numeracy/ICT Treasure maps – Literacy skills can be developed through the writing of a questions to be used with maps.		

Autumn Term 2	Activities	G&T extension topics
Topic: Myth busters	Creating and testing a hypothesis, scatter diagrams and correlation, review of MMR.	Bias, sampling techniques. Grouped data. Consideration of outlier.
Top trumps	Negative numbers, order of operations, substitution, formulas.	Rearranging formulae.
Art meets maths	Measure and calculate angles, including those involving parallel lines. Interior and exterior angles of polygons. Tessellate shapes.	Explain and justify why polygons tessellate.
		Assessment Plans Topic assessment / class test.
Literacy/Numeracy/ICT Mythbusters – Literacy skills can be developed through the writing of a hypothesis and analysis/interpretation of data.		

Spring Term 1	Activities	G&T extension topics
Topic: Surviving in the real world	Calculate fractions and percentages of quantities. Convert between fractions, decimals and percentages. Percentage changes.	Investigate finding original value after a percentage change. Convert/prove recurring decimal and fractions.
Bugs	Multiples, factors, primes, HCF, LCM, squares, cubes, index notation. Find rules (term to term and	Use exact values when writing roots, quadratic sequences.
Logos	Transformations: reflection rotation enlargement and translation on a square grid/ coordinate axes. Recognise congruence.	NRICH activity on inverse transformations. Investigate area and volume factor.
		Assessment Plans Topic assessment.
Literacy/Numeracy/ICT Surviving in the real world– Numeracy skills in context developed.		

Spring Term 2	Activities	G&T extension topics
Topic: Be a detective	Frequency charts and finding the mean from these, stem and leaf diagrams and finding the median from these, comparing two sets of data, modal group and range.	Grouped data. Discuss which the most appropriate average is.
Math magic	Simplifying algebraic expressions, expand and factorise single bracket, expand double brackets. Form and solve linear equations.	More complex algebraic equations.
Assessment Plans Topic assessment / class test.		
Literacy/Numeracy/ICT_Be a Detective - writing of a hypothesis and interpretation of data. Use of mathematical language.		

Summer Term 1	Activities	G&T extension topics
Topic: Shape sorter	Identify and describe symmetry, length and angle properties of shapes, constructions for perpendicular and angle bisectors, calculating area of rectangles, triangles, parallelograms and trapeziums, find perimeters.	Pythagoras theorem. Lengths of arcs and areas of sectors.
Home improvement	Estimation and approximation, rounding to significant figures and decimal places, non calculator methods of multiplication and division to include decimals.	Upper and lower bounds when rounding. Standard form.
Assessment Plans Topic assessment.		
Literacy/Numeracy/ICT Home improvement – Estimations skills used in context.		

Summer Term 2	Activities	G&T extension topics
Topic: Transport.	Identifying properties of real life graphs, plotting straight line graphs, finding equations of straight line graphs.	Looking at rates of change in graphs and finding equations of graphs given 2 points.
Odds on.	Expressing probabilities and relative frequencies. Listing all possible outcomes.	Tree diagrams.
Assessment Plans Topic assessment / end of year exam		
Literacy/Numeracy/ICT		

Website / Resources <http://vle.mathswatch.co.uk> www.kangaroomaths.com (Kenny's pouch)
<http://www.bbc.co.uk/schools/ks3bitesize>