Strands of Mathematics Curriculum Relating to Each Activity

Level One

Activity Name	*Number*	*Algebra*	*Geometry*	*Measurement*	*Statistics*
Accuracy and Precision		Equation for patterns		Limits of accuracy	Types of error and bias
Culs de Sacs				Areas	
Geometry			Interior Angles, Circle geometry		
Geometry and Surveying			Angles, Interior angles		
Lake Reserve		Co-ords	Bearings	Area and Length	
Latitude and Longitude	Representing degrees with minutes and seconds	World Map positions		Trigonometry (SOHCAHTOA)	
Levelling					Mean, Box & Whisker
Levelling # 1				Height differences, area with scale	
Road Works			Angles on parallel lines (minor part), bearings	Trigonometry (SOHCAHTOA)	
Subdividing Land				Area and Trig (SOHCAHTOA)	
Surveying the River width plus trig				Trigonometry (SOHCAHTOA)	
Time and Links	Conversion			24 Hour clock Unit conversion Area	
Trigonometry				Pythagoras and SOHCAHTOA – note angles in degrees minutes seconds	
Trig Heights #1		Writing equations		Trigonometry (SOHCAHTOA)	
Trig Heights #2		Writing equations		Trigonometry (SOHCAHTOA)	
Units	Standard form	Substitution		Unit conversions	
Vectors		Graphs (Co-ords)	Shape	Area	
Where Am I?			Latitude and longitude 3D geometry		

Level Two

Activity Name	*Number*	*Algebra*	*Geometry*	*Measurement*	*Statistics*
Buildings				Sine and cosine rules Feet/metre conversion	
Degrees Minutes Seconds			Circle geometry	Conversion to and from decimal degrees, length, radius	
Engineering Ideas			Interior Angles	Sine and Cosine rules, SOHCAHTOA	
Geometry #2		Write formula	Circle geometry	Length, area	
Heights and Sights				Trigonometry	
Mountains		Writing equations		Sine and cosine rules	
Sine and Cosine Rule #1				Sine and Cosine rules	
Three Friends			Interior angles	Trigonometry	
Trig Heights #4				SOHCAH TOA, Sine and cosine rules	
Trig Heights #5				SOHCAH TOA, Sine and cosine rules	

Level Three

Activity Name	*Number*	*Algebra*	*Geometry*	*Measurement*	*Statistics*
Angles and Angles				Trigonometry	
Area and Trig				Trapezium and Simpson's rules, Trigonometry, limits of accuracy	
Control Stations (Easy level 3)		Polar/rect coord conversion	Circle geometry	Sine and Cosine rule	
Geometry # 4			Coordinates, polar to rectangular, bearings		
Least Squares (Challenging)		Writing equations, Simultaneous equations		Partial derivatives	
Polar to Rectangular		Co-ord conversion	Bearings		
Residuals			Enlarge-ment (easy)		Std deviations, confidence intervals
Trapezium and Simpson's Rules				Numerical methods of integration	
Traversing		Possibly coordinate conversion (polar to rectangular)	Bearings and interior angles	Trigonometry (conversion to rectangular co-ords)	