National 5 Applications of Maths Course

June

Percentages • Finding % of amount in context (VAT, sales, simple interest on loans) • Compound %	TJ N5 Apps Ch 2, 3 Zeta N5 Apps Ch 2, 3, 5
Tolerance • Finding maximum & minimum values • Using tolerance to accept/reject values	TJ N5 Apps Ch 11 Zeta N5 Apps Ch 27

August – October

Wages and Salaries • Calculate weekly, monthly and annual wage • Calculate commission • Calculate overtime pay (e.g. time and a half) • Calculate net pay • Complete a pay slip • Calculate National Insurance	TJ N5 Apps Ch 20 Zeta N5 Apps Ch 14, 15, 16
Finance • Calculate interest on savings/borrowing • Best deals • Budgeting • Hire Purchase • Currency Exchange	TJ N5 Apps Ch 21, 22, 23 Zeta N5 Apps Ch 13, 17, 18
Assessment 1 – Finance & some Numeracy	
Graphs & Charts • Bar charts, line graphs • Stem-and-leaf diagrams • Reading pie charts • Calculations involving pie charts • Scattergraphs	TJ N5 Apps Ch 9, 25 Zeta N5 Apps Ch 9, 11, 19
Analysing Data • Finding mean, median • Standard deviation • 5 figure summary & Interquartile Range • Box Plots • Writing comparison sentences	TJ N5 Apps Ch 24 Zeta N5 Apps Ch 19

October – Christmas

Probability • Writing probability as fraction, decimal or % • Comparing probabilities • Using probabilities to compare to observed outcomes	TJ N5 Apps Ch 10, 26 Zeta N5 Apps Ch 10
Assessment 2 – Statistics & some Numeracy	
Fractions and Ratio • Fractions operations, including non-calc • Simplifying ratio • Ratio calculations • Splitting amounts in a ratio • Contextual questions	TJ N5 Apps Ch 4, 7 Zeta N5 Apps Ch 4, 6
Perimeter, Area, Volume • Perimeter of rectangles, triangles, circles, part circles, compound shapes • Area of rectangles, triangles, circles, part circles, compound shapes • Contextual questions, eg decorating a room • Volume of prisms, pyramids, spheres, part shapes, compound shapes • Converting between volume, capacity, mass • Contextual questions, eg "how many candles can be made out of a block of wax?", "can bottles be sent in a single delivery?"	TJ N5 Apps Ch 6, 8, 17, 19, some 18 Zeta N5 Apps Ch 21, 22
Pythagoras • Calculate hypotenuse • Calculate shorter side • Finding the right angled triangle in compound shapes	TJ N5 Apps Ch 15 Zeta N5 Apps Ch 24

January - Easter

Gradient • Calculating gradient • Contextual problems, including non-calculator • Using gradient to calculate missing lengths • Problems involving Pythagoras	TJ N5 Apps Ch 16 Zeta N5 Apps Ch 23
Assessment 3 – Geometry & Measure outcome 2 and some Numeracy	
Prelim	
Organising Tasks • Precedence tables • PERT charts • Critical Path • First fit algorithm • Container packing	Zeta N5 Apps Ch 26, 28
Travel • Calculating time intervals, start/end times • Time zone calculations • Convert between h/min & decimal hours • Speed, distance, time calculations, including non-calculator	TJ N5 Apps Ch 5, 14 Zeta N5 Apps Ch 8, 26
Scale Drawing • Make a scale drawing including an angle of elevation or bearing • Make scale drawing of a multi-step journey • Use a scale drawing to calculate real life distances and bearings	TJ N5 Apps Ch 13 Zeta N5 Apps Ch 25
Assessment 4 – Geometry & Measure outcome 1 and some Numeracy	