

0-9 Scale descriptions for Food Technology - UWS

| Stage | Description | |
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| 8,9 and higher | Upper and lower bounds Surds Perpendicular lines Completing the square Algebraic fractions Simultaneous equations with a quadratic Solving quadratic inequalities | Finding the nth term of a quadratic Inverse functions Composite functions Velocity-time graphs Pythagoras in 3D Trigonometry in 3D Vectors |
| 7 | Functional indices Recurring decimals-proof Rearranging difficult formula Factorising hard quadratics Algebraic proof Exponential functions Trigonometric graphs Transformation of functions Equation of the circle | Regions Direct and inverse proportion Similarity- area and volume The Sine rule The Cosine rule Area of a triangle using Sine And or probability questions Histograms Solving quadratics with a formula. |
| 6 | Recurring decimals to fractions Product of three binomials Iteration-trial and improvement Iterative processes Enlargement-negative scale factors Combinations of transformations Circle theorems Proof of circle theorems Probability using Venn diagrams Cumulative frequency Boxplots | |

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| 5 | <p>Negative indices Error intervals Mathematical reasoning Factorising and solving quadratics The difference of two squares Finding the equation of a straight line Roots and turning points of quadratics Cubic and reciprocal graphs Simultaneous equations algebraically Geometric progressions Compound interest and depreciation Loci Congruent triangles Solving equations</p> | <p>Sectors of a circle Trigonometry Spheres Pyramids Cones Frustums Exact trigonometric values Introduction to vectors Harder tree diagrams Stratified sampling Rearranging simple formulae Forming formulae and equations Inequalities on a number line</p> |
| 4 | <p>Index notation Introduction to bounds Midpoint of a line on a graph Expanding and simplifying brackets Solving linear inequalities Simultaneous equations graphically Fibonacci sequences Compound units Distance –time graphs Similar shapes</p> | <p>Bisecting an angle Constructing perpendiculars Drawing a triangle using compasses Enlargements Tangents, arcs, sectors and segments Pythagoras' theorems Simple tree diagrams Sampling populations Time series</p> |

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| 3 | <p> Multiplying decimals Dividing decimals Four rules of negatives Listing strategies Comparing fractions Adding and subtracting fractions Finding a fraction of an amount Multiplying fractions BODMAS/BIDMAS Reciprocals Calculator questions Product of primes Highest common factor(HCF) Lowest common Multiple(LCM) Squares, cubes and roots Working with indices Standard form Decimals and fractions Fractions, percentages, decimals Percentage of an amount (Calc) Percentage of an amount (Non-calc) Rounding to significant figures Estimating answers Using place value Expanding brackets Simple factorisation Substitution Straight line graphs The gradient of a line Drawing quadratic graphs Sketching functions Solving equations using flow charts Subject of a formula using flow charts Generate a sequence to the nth term Dividing fractions </p> | <p> Finding the nth term Special sequences Exchanging money Sharing using ratio Ratios, fractions and graphs Increase/decrease by a percentage Percentage change Reverse percentage problems Simple interest Metric conversions Problems on coordinate axes Surface area of a prism Volume of a cuboid Circle definitions Area of a circle Circumference of a circle Volume of a prism Angles and parallel lines Angles in a triangle Properties of special triangles Angle sum of polygons Bearings Experimental probabilities Possibility spaces Venn diagrams Pie charts Scatter diagrams Averages from a table Change to percentages (Calc) Change to percentages (Non-calc) </p> |
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| 2 | <p> Adding integers and decimals Subtracting integers and decimals Multiplying integers Dividing integers Inverse operations Money questions Negatives in real life Introduction to fractions Equivalent fractions Simplifying fractions Half-way values Factors, multiples and primes Introduction to powers/indices Multiply and divide by powers of 10 Rounding to the nearest 10, 100 ect Rounding to decimal places Simplifying- addition and subtraction Simplifying- multiplication Simplifying- division Function machines Generating a sequence- term to term. Introduction to ratio Using ratio for recipe questions Introduction to percentages Value for money Introduction to proportion </p> | <p> Properties of solids Nets Angles on a line and at a point Measuring and drawing angles Drawing a triangle using a protractor Reflections Rotations Translations Plans and elevations Perimeters Area of a rectangle Area of a triangle Area of a parallelogram Area of a trapezium Frequency trees Listing outcomes Calculating probabilities Mutually exclusive events Two way tables Averages and the range Data-discrete and continuous Vertical line charts Frequency tables and diagrams </p> |
| 1 | <p> Place value Ordering integers Ordering decimals Reading scales Simple mathematical notation Interpreting real life tables Introduction to algebraic conventions Coordinates Simple geometric definitions Polygons Symmetries Tessellations and congruent shapes Names of angles The probability scale Tally charts and bar charts Pictograms </p> | |

