

<p>Autumn 2</p>	<p><i>Dealing with data</i></p> <p><i>Multiplicative reasoning</i></p> <p><i>Constructions</i></p>	<p>Primary, secondary, discrete, continuous, quantitative, qualitative, plan, survey/questionnaire, organize, estimate, mean, modal class, frequency polygon, correlation, outlier, compare</p> <p>Similarity, enlargement, scale factor, percentage change, speed/distance/time, compound measures, convert, mass/density/volume, pressure/area/force</p> <p>Scale factor, ratio, map scale, image and object, perpendicular, bisector, point, line, congruency, special angles</p>	<p>Identify the difference between types of data and evaluate reliability of these; plan a survey/questionnaire ensuring fairness and clarity; organize data into useable and meaningful formats; evaluate data by using measures of central tendencies; make correlations in bivariate data and identify if causality is present; write a report on compared data</p> <p>CE: Business intelligence developer, analytics manager, software engineer, data scientist, data engineer</p> <p>Use multiplication to find and use the relationships between the sides of similar shapes; find and use the scale factor of fractional and negative enlargements of shapes on a cartesian plane; use a multiplier to find percentage change as well as calculating original amounts before a given percentage change was applied; do calculations with compound measures; convert between units of compound measures</p> <p>CE: Forklift operator, assembly, bond technician, baker, electronics engineer/technician, program support, wastewater plant operator, steamfitter plumber</p> <p>Convert between scales of those represented as a ratio and those represented as a measure of distance; apply scales to convert between the dimensions of an object and its image; draw accurate nets, draw loci of a point, points, a line, line, but not a point and line</p> <p>CE: CAD drafter, Framer, driver, painter, receiver, material handler</p> <p>PSHE: Raise aware of misleading online content by investigating misleading graphs/data.</p>	<p>End of topic review Homework Bookmarking Classroom feedback Half-term formal assessment</p>
<p>Spring 1</p>	<p><i>Equations, inequalities and proportionality</i></p>	<p>Solve, expand, simplify, convert, decimal, fraction, trial and improvement, quadratic, cubic, round, inequality, number line, substitute, eliminate</p>	<p>Solve equations with brackets or fractions; convert recurring decimals without a calculator; use trial and improvement to solve equations containing quadratic or cubic expressions; interpret, represent and apply inequalities; solve simultaneous equations via substitution and via elimination</p> <p>CE: Boiler maker, meteorologist, geologist, chemist, mathematician</p>	<p>End of topic review Homework Bookmarking Classroom feedback Half-term formal assessment</p>

Summer 2

Enrichment

Base, count, convert, hexadecimal, pattern, bearing, compass, cartesian, polar, tax, mortgage, savings, loans, Pythagorean triple, trial and improvement, simultaneous

Write numbers in different bases especially in terms of binary and hexadecimal (the language of computers); express patterns as a series repetitive of calculations; use compass directions to indicate direction in sketches, on the cartesian plane and in using polar grids; solve problems involving income tax, mortgages, savings and loans; identify Pythagorean triples; solve simultaneous equations using trial and improvement