

## National Numeracy Tests –Year 8 topics list

- Use known facts to derive others, e.g. use  $7 \times 6$  to derive  $0.7 \times 6$
- Use the terms cube, cube root and reciprocal
- Equivalence of fractions, decimals and percentages
- Simplify a calculation by using fractions in their simplest forms
- Calculate percentage, fraction, decimal of quantities
- Calculate the outcome of a given percentage increase or decrease
- Use ratio and proportion to calculate quantities
- Add and subtract numbers to 2 decimal places
- Multiply and divide whole numbers and decimals such as 0.6 or 0.06
- Use the order of operations including brackets
- Use rounding to estimate answers to a given number of significant figures
- Carry out calculations relating to VAT, saving and borrowing
- Appreciate the basic principles of budgeting, saving (including understanding compound interest) and borrowing
- Use the common units of measure, convert between related units of the metric system and carry out calculations
- Use rough metric equivalents of imperial units in daily use
- Interpret fractions of a second appropriately
- Use timetables and time zones to calculate travel time
- Convert temperatures between appropriate temperature scales
- Calculate areas of compound shapes (e.g. consisting of rectangles and triangles) and volumes of simple solids (e.g. cubes and cuboids)
- Use compass bearings and grid references to specify locations
- Plan how to collect data to test hypotheses
- Construct a wide range of graphs and diagrams to represent discrete and continuous data
- Construct frequency tables for sets of data in equal class intervals, selecting groups as appropriate
- Construct graphs to represent data including scatter diagrams to investigate correlation
- Interpret diagrams and graphs to compare sets of data
- Use mean, median, mode and range to compare two distributions (continuous data)

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