

# Year 7 Revision List (Summer Assessment)

You will be given two assessments, both out of 60 marks. The first will be non-calculator and the second will be with a calculator. Everyone in the year group will sit the same paper. On this revision list, the topics listed with an E are designed to extend pupil's knowledge.

Good websites to prepare are:

[www.corbettmaths.com](http://www.corbettmaths.com)

[www.bbc.co.uk/bitesize](http://www.bbc.co.uk/bitesize)

## 1. Place Value, Ordering & Rounding

- **Integers & Decimals:** Read, write, compare, and order integers (to 10,000) and decimals on number lines.
- **Rounding & Estimation:** Round to the nearest 10, 100, 1000, integer, or given decimal places; round to significant figures to estimate calculations and solve problems.
- **Standard Form & Powers of 10 (E):** Multiply/divide by positive/negative powers of 10; write numbers in standard form; use error interval notation.

## 2. Numerical Operations & Number Properties

- **The Four Operations:** Mental and written methods for adding, subtracting, multiplying, and dividing integers and decimals.
- **Multiplying/Dividing by 10, 100, 1000:** Apply to integers/decimals; multiply by 0.1/0.01 (E); divide by decimals (E).
- **Properties of Number:** Identify multiples, factors, primes, squares, cubes, and triangular numbers; find square/cube roots.
- **HCF, LCM & Powers (E):** Find HCF/LCM (including from Venn diagrams); write prime factors; explore higher powers and counterexamples.
- **Order of Operations:** Apply BIDMAS/BODMAS rules correctly, including to directed numbers.

## 3. Algebraic Expressions, Sequences & Equations

- **Function Machines & Substitution:** Use 1 and 2-step function machines (numerical/algebraic) and substitute integers into expressions.
- **Algebraic Manipulation:** Understand equality/equivalence; simplify expressions by identifying and collecting like terms.
- **Solving Equations:** Solve 1-step equations (all four operations) and 2-step linear equations.
- **Sequences:** Continue, describe, and find missing terms in linear/non-linear number and diagram sequences using rules.

## 4. Fractions, Decimals & Percentages (FDP)

- **FDP Equivalences:** Compare, convert, and represent fractions, decimals, and percentages using diagrams and number lines.

- **Fraction Arithmetic:** Simplify fractions; convert mixed/improper fractions; add and subtract fractions/mixed numbers with any denominator.
- **Fractions & Percentages of Amounts:** Find fractions and percentages of amounts (calculator and non-calculator); use them to find the original whole.
- **FDP Applications:** Calculate percentage increase/decrease; work with FDP values greater than 1 (**E**).
- **Advanced Fractions (E):** Add/subtract algebraic fractions; solve equations with fractions; mix decimals and fractions using equivalence.

## 5. Directed Numbers (Negatives)

- **Comparing & Ordering:** Position, compare, and order negative numbers on a number line.
- **Calculations:** Add, subtract, multiply, and divide directed numbers (crossing zero and using zero pairs).

## 6. Perimeter, Area & Time

- **Perimeter & Area:** Find perimeter of polygons/compound shapes; find area on a grid, and of rectangles, parallelograms, triangles, and trapezia.
- **Problem Solving & Algebra (E):** Solve perimeter/area problems; form algebraic expressions for perimeter and area.
- **Time & Timetables:** Convert time units (seconds to years); work with fractions of time; interpret timetables and calendars.

## 7. Speed, Distance & Time

- **Calculations:** Calculate speed, distance, and time using both calculator and non-calculator methods.
- **Distance-Time Graphs:** Draw and interpret distance-time graphs; calculate exact speed from a graph (**E**).

## 8. Lines, Angles & Geometry

- **Lines & Angles:** Draw, measure, classify, and estimate lines and angles; use standard geometric notation.
- **Angle Facts:** Apply rules for angles on a line, around a point, vertically opposite, and inside triangles/quadrilaterals.
- **Advanced Geometry (E):** Calculate angles in parallel lines and polygons; use geometric proofs.

## 9. Statistics & Graphs

- **Averages & Range:** Find and interpret mean, median, mode, and range; solve problems using averages.
- **Graphs & Charts:** Construct and interpret pictograms, single/dual/composite bar charts, and time-series graphs.
- **Coordinates & Scatter Graphs:** Plot coordinates; plot/read scatter graphs, identify correlation, and draw lines of best fit.