

# ALP Maths Year Curriculum Overview

\*The following topics are not taught in ALP but are covered in mainstream Maths - FDP conversions, collecting like terms, expanding simple brackets (Y7) and so have moved in to the Y8 ALP Maths curriculum. In Y8, the following are not covered - factorise an algebraic expression, percentage increase or decrease,  $n^{\text{th}}$  term.

## Broader concepts: Y7

ALP students form part of the catch up cohort and so addressing gaps in their KS2 knowledge is paramount. The skills and knowledge outlined below mirrors the mainstream KS3 maths curriculum\*, but the primary approach and KS2 level at which the following skills/ knowledge is taught at is better suited to the students in the ALP.

Skills:	Knowledge:
<ul style="list-style-type: none"> <li>To break down problems into a series of simpler steps.</li> <li>To develop a rich and accurate mathematical vocabulary.</li> <li>Present a mathematical justification, argument or proof, making their thinking clear to themselves and others.</li> <li>To develop connections between knowledge from different topics.</li> <li>Check their answers are sensible.</li> <li>Apply knowledge to both routine and non-routine problems.</li> <li>Fluent application of arithmetic.</li> <li>The ability to work alone or to collaborate with others.</li> <li>Written and oral communication skills.</li> </ul>	<ul style="list-style-type: none"> <li>Calculations</li> <li>Time</li> <li>Directed numbers</li> <li>Algebraic notation</li> <li>Frequency tables</li> <li>Venn diagrams</li> <li>Area and perimeter</li> <li>Fractions, decimals and percentages</li> <li>Angles</li> <li>Symmetry</li> <li>Sequences</li> <li>Coordinates</li> <li>Rounding and estimation</li> <li>Converting units</li> <li>Scale drawings</li> <li>Nets and volume</li> </ul>

### Recall:

- Weaknesses from their question level analysis
- Equivalent fractions, add and subtract fractions, basic area, place value, list factors and multiples, basic angle rules, fraction of an amount, rounding, four operations with integers, odd, even and prime numbers, collect like terms, order and compare integers, decimals and fractions, calculate a percentage of a quantity.

## Broader concepts: Y8

ALP still have gaps in their KS2 knowledge. The skills and knowledge outlined below mirrors the mainstream KS3 maths curriculum\*, but the primary approach and KS2 level at which the following skills/ knowledge is taught at is better suited to the students in the ALP.

Skills:	Knowledge:
<ul style="list-style-type: none"> <li>To break down problems into a series of simpler steps.</li> <li>To develop a rich and accurate mathematical vocabulary.</li> <li>Present a mathematical justification, argument or proof, making their thinking clear to themselves and others.</li> <li>To develop connections between knowledge from different topics.</li> <li>Check their answers are sensible.</li> <li>Apply knowledge to both routine and non-routine problems.</li> <li>Fluent application of arithmetic.</li> <li>The ability to work alone or to collaborate with others.</li> <li>Written and oral communication skills.</li> </ul>	<ul style="list-style-type: none"> <li>HCF and LCM</li> <li>Product of Primes</li> <li>Algebraic expressions</li> <li>Fractions, Decimals and percentages</li> <li>Probability</li> <li>Substitution</li> <li>Ratio</li> <li>Averages and range</li> <li>Proportion</li> <li>Polygons</li> <li>Parallel lines</li> <li>Volume</li> <li>Surface Area</li> </ul>

### Recall:

- Weaknesses from their question level analysis.
- Basic probability, correct use of a calculator,, substitution, proportion using the unitary method, problem solving with money, volume, converting between units of time, length and capacity, solving equations, BIDMAS, solve equations, interior and exterior angles, estimation, is a number in a sequence.

Y7 Aims

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