

Year II : Term 1

NA1 : Numbers and Sequences (6 lessons)

Lesson	Spread	Content
1 & 2	NA1.1	Add and subtract negative numbers.
3 & 4	NA1.2	Multiply and divide negative numbers.
5 & 6	NA1.3	Understand factors, multiples and primes. Find the prime factorisation of a number. <i>Do not cover HCFs and LCMs.</i>

NA1.4 and NA1.6 can be covered if time permits. NA1.5 is unnecessary.

S1 : Angles and Bisectors (5 lessons)

Lesson	Spread	Content
1	S1.1	Identify alternate and corresponding angles. Understand a proof that the sum of the angles in a triangle is 180° .
2	S1.2	Calculate angles in triangles and quadrilaterals.
3	S1.3	Solve geometrical problems with triangles.
4	S1.4	Solve geometrical problems with quadrilaterals.
5	S1.5	Construct midpoint and perpendicular bisector of a line segment. Bisect an angle.

D1 : Probability (5 lessons)

Lesson	Spread	Content
1	D1.1	Identify all the possible outcomes of an event. Find probabilities of events happening and not happening.
2	D1.2	Construct sample space diagrams for two successive events.
3	D1.3	Use sample space diagrams to find probabilities.
4	D1.4	Estimate probabilities from experimental data. Understand the estimate improves as more trials are undertaken.
5	D1.6	Compare experimental and theoretical probability.

D1.5 can be returned to later if time permits.

N2 : Fractions, Decimals and Percentages (7 lessons)

Lesson	Spread	Content
1	N2.1	Convert fractions to decimals. Compare fractions.
2	N2.2	Add and subtract fractions.
3 & 4	N2.3	Multiply and divide an integer by a fraction.
5	N2.4	Find a percentage of an amount.
6	N2.5	Increase and decrease by a percentage.
7	N2.6	Use percentages to compare proportions.

A2 : Expressions and Formulae (6 lessons)

Lesson	Spread	Content
1	A2.1	Order of operations, substitute integers into simple formulas.
2	A2.6	Substitute positive and negative integers into expressions and formulas, and solve any resulting equations.
3	A2.2	Use index notation for small positive integer powers.
4	A2.3	Simplify expressions by collecting like terms.
5	A2.4	Expand one pair of brackets and simplify resulting expressions.
6	A2.5	Substitute positive and negative integers into expressions and formulas.

S2 : Measures and Measurements (5 lessons)

Lesson	Spread	Content
1	S2.1	Use and convert between metric units of measurement.
2	S2.3	Find the area of triangles, parallelograms and trapeziums.
3	S2.4	Calculate areas of compound shapes made from rectangles and triangles.
4	S2.5	Calculate volumes of cuboids and shapes made from cuboids.
5	S2.6	Calculate surface areas of cuboids.

S2.2 can be returned to later if time permits.

Test and Review (2 lessons)

Based on term 1 work.

Total Number of Lessons : 36

Year II : Term 2

A3 : Functions and Graphs (4 lessons)

Lesson	Spread	Content
1	A3.1	Express simple functions in symbols.
2	A3.2	Plot graphs of linear functions using tables of values.
3	A3.5	Construct and interpret distance-time graphs.
4	A3.6	Interpret graphs of real-life situations.

A3.3 approaches a formal treatment of $y = mx + c$, and this is covered in Year IV.

A3.4 can be returned to later if time permits.

N3 : Multiplicative Reasoning (7 lessons)

Lesson	Spread	Content
1	N3.1	Multiply and divide by powers of ten (from 0.001 to 1000).
2	N3.2	Round and order decimals.
3	N3.5	Multiply decimals by integers and decimals on paper.
4	N3.6	Divide decimals by integers on paper.
5 & 6	N3.7	Simplify ratios. Divide an amount in a given ratio. Use the unitary method with ratios.
7	N3.9	Use the unitary method with direct proportion.

N3.3, N3.4 and N3.8 can be returned to later if time permits.

S3 : Transformations and Congruence (6 lessons)

Lesson	Spread	Content
1	S3.1	Understand congruent shapes.
2	S3.2	Describe and perform translations, reflections and rotations.
3	S3.3	Combine two transformations and describe the single transformation with the same effect.
4	S3.4	Describe reflection and rotation symmetry.
5	S3.5	Find the scale factor of an enlargement. Enlarge a shape.
6	S3.6	Enlarge a shape using a centre of enlargement.

A4 : Equations and Formulae (6 lessons)

Lesson	Spread	Content
1	A4.1	Construct and solve simple linear equations using inverse operations.
2	A4.2	Simplify expressions by collecting like terms.
3	A4.3	Construct and solve linear equations with the unknown on both sides.
4	A4.4	Construct and solve linear equations with brackets.
5	A4.5	Substitute integers into simple formulae.
6	A4.6	Substitute integers into simple formulae. Derive simple formulae.

D2 : Handling Data (6 lessons)

Lesson	Spread	Content
½	D2.1	Plan data collection.
1 + ½	D2.2	Construct bar graphs, pie charts and scatter graphs.
3	D2.3	Interpret tables, graphs and diagrams.
4	D2.4	Draw stem-and-leaf diagrams, and calculate simple statistics.
5	D2.5	Use averages and the range to compare two sets of data.
6	D2.6	Discuss a statistical enquiry and communicate the results.

Test (2 lessons)

Based on term 2 work.

Total Number of Lessons : 31

Year II: Term 3

N4 : Multiplication and Division (3 lessons)

Lesson	Spread	Content
1	N4.3	Use order of operations with more complex calculations. Use a calculator efficiently.
2	N4.5	Divide integers by decimals.
3	N4.6	Convert between metric units. Calculate with time.

N4.1 and N4.2 can be returned to later if time permits. N4.4 has already been covered in N3.5.

A5 : Equations and Graphs (6 lessons)

Lesson	Spread	Content
1	A5.1	Simplify expressions and expand brackets.
2	A5.2	Construct and solve linear equations with the unknown on both sides.
3	A5.3	Construct and solve linear equations with brackets.
4	A5.4	Solve equations involving fractions.
5	A5.5	Understand and use graphs involving direct proportion.
6	A5.8	Use the unitary method with direct proportion.

A5.6 approaches a formal treatment of $y = mx + c$, and this is covered in Year IV.

A5.7 has already been covered in A3.5.

Examination (1 week + 1 review lesson)

Based on all Year II work so far.

S4 : Dimensions and Scales (8 lessons)

Lesson	Spread	Content
1	S4.2	Understand and draw plans and elevations.
2	S4.3	Calculate volumes and surface areas of cuboids and shapes made from cuboids.
3	S4.4	Understand scale written as a ratio, and make simple scale drawings.
4	S4.5	Measure and draw bearings.
5	S4.6	Find the coordinates of the midpoint of a line segment.
6	S4.7	Construct simple loci.
7	S4.8	Construct simple loci.
8	S4.9	Construct triangles.

S4.1 involves a fairly basic treatment of cubes and cuboids.

Total Number of Lessons : 17 + examination period