Year I : Term 1

General Orientation and Course Introduction (1 lesson)

A1 : Sequences and Functions (4 lessons)

Lesson	Spread	Content
1	A1.1	Generate and describe simple integer sequences.
	A1.2	Generate terms of a simple sequence, given a rule (both term-to-term and position-to-term).
2	A1.3	Generate sequences from practical contexts.
3	A1.4	Express simple functions in words, then using symbols.
	A1.5	Represent functions in mappings.
4	A1.6	Use letters to represent unknown numbers or variables.

N1 : Number Calculations (4 lessons)

Lesson	Spread	Content
1	N1.1	Understand and use decimal notation and place value. Compare and order decimals in different contexts.
2	N1.2	Understand negative numbers as positions on a number line. *Some of the numbers in the exercise are unnecessarily complicated, so you may wish to replace some questions.*
3	N1.3	Order, add and subtract positive and negative integers.
4	N1.5	Add and subtract integers and decimals. Make estimates of calculations. *Some of the numbers in the exercise are rather complicated, so you may wish to replace some questions.*

N1.4 and N1.6 can be returned to later if time permits.

S1 : Perimeter and Area (4 lessons)

Lesson	Spread	Content
1	S1.1	Find the perimeter and area of rectangles and shapes made from rectangles.
2	S1.2	Find the area of right-angled triangles.
3 & 4	S1.4	Understand nets and properties of cubes and cuboids, extending to prisms and pyramids. Extension : calculate surface areas of cubes and cuboids.

S1.3 is covered in more detail in Year II.

N2 : Fractions, Decimals and Percentages (7 lessons)

Lesson	Spread	Content
1	N2.1	Use fraction notation.
2	N2.2	Simplify fractions. Find equivalent fractions. Compare fractions.
3 & 4	N2.3	Convert between mixed numbers and improper fractions. Add and subtract fractions with the same denominators. *Q7 is a little unsatisfactory, and you may wish to replace it.*
5	N2.4	Convert between fractions and decimals. *Some of the questions in the exercise are rather complicated, so you may wish to replace them. Stick with tenths, hundredths, and fractions that are easily converted into tenths and hundredths.*
6	N2.5	Find a fraction of an amount. Multiply integers by fractions. *Use the unitary method.*
7	N2.6	Convert between fractions, decimals and percentages. *No need to find a percentage of an amount. This comes in N4.*

D1 : Statistics and Probability (4 lessons)

Lesson	Spread	Content
1	D1.1	Find the mode, median and range for a set of discrete data.
2	D1.2	Find the mean for a set of discrete data.
3	D1.4	Use vocabulary of probability, based on experience. Understand and use the probability scale from 0 to 1
4	D1.5	Identify all the possible outcomes of an event. Find probabilities based on equally likely outcomes.

D1.3 is covered in more detail in D2.5.
D1.6 is covered in more detail in D4.2 and D4.3.

A2 : Expressions and Formulae (5 lessons)

Lesson	Spread	Content
1	A2.1	Use letters to stand for numbers.
2 & 3	A2.2	Understand simple algebraic conventions.
4	A2.3	Simplify expressions by collecting like terms.
5	A2.4	Substitute positive integers into simple linear expressions.

A2.5 can be returned to later if time permits.

S2 : Angles and Shapes (4 lessons)

Lesson	Spread	Content
1	S2.1	Use notation for labelling angles. Estimate, measure and draw acute, obtuse and reflex angles.
2	S2.2	Know the sum of angles at a point, on a straight line and in a triangle. Recognise vertically opposite angles.
3	S2.3	Plot points in all four quadrants. *Include the Christmas coordinates activity.*

Test and Review (2 lessons)
Based on term 1 work.

Total Number of Lessons : 35

Year I : Term 2

D2 : Handling Data (4 lessons)

Lesson	Spread	Content
1	D2.1	Plan a statistical enquiry.
	D2.2	Plan how to collect and organise small sets of data. Design a data collection sheet or questionnaire.
2	D2.3	Collect small sets of data as planned. Construct frequency tables for discrete data, grouped where appropriate in equal class intervals.
3	D2.4	Construct diagrams to represent data, including bar-line graphs and frequency diagrams for grouped discrete data.
4	D2.5	Interpret diagrams and draw simple conclusions based on the shape of graphs and simple statistics for a single distribution.

N3 : Multiplication and Division (6 lessons)

Lesson	Spread	Content
1	N3.1	Understand and use decimal notation and place value. Multiply and divide by 10, 100 and 1000. Convert one metric unit to another.
2	N3.2	Know and use the order of operations, including powers and brackets. *Make BIDMAS explicitly clear.*
3	N3.4	Multiply integers on paper.
4	N3.5	Multiply decimals by integers on paper.
5	N3.6	Divide integers on paper.
6	N3.7	Divide decimals by integers on paper. Write remainders as integers, fractions and decimals.

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

A3 : Functions and Graphs (4 lessons)

Lesson	Spread	Content
1	A3.1	Understand factors, multiples and primes.
2	A3.4	Draw mapping diagrams. Find the n^{th} term of a linear sequence. *Q2 only.*
	A3.3	Find the n^{th} term of a linear sequence. *The spread isn't particularly good – feel free to do n^{th} term your own way.*
3	A3.5	Plot coordinate pairs that satisfy simple linear rules. *Begin by discussing the equations of horizontal and vertical lines. Then do as much of A3.5 and A3.6 as time allows.*
4	A3.6	Use tables of values to plot linear graphs.

A3.2 can be returned to later if time permits.

S3 : Triangles and Quadrilaterals (5 lessons)

Lesson	Spread	Content
½	S3.1	Know the sum of angles at a point and on a straight line. Measure and draw acute, obtuse and reflex angles.
½ + 2	S3.2	Know and use the angle sums of triangles and quadrilaterals.
3	S3.3	Identify parallel and perpendicular lines. Identify different types of triangles and quadrilaterals.
4	S3.4	Construct triangles with ruler and protractor (**not** compasses).
5	S3.5	Understand 2D representations and properties of 3D shapes. *Omit Q5. Do extra examples of isometric drawing as in Q6.*

N4 : Percentages, Ratio and Proportion (7 lessons)

Lesson	Spread	Content
1 & 2	N4.1	Convert between fractions, decimals and percentages.
3	N4.2	Find a percentage of an amount.
4	N4.3	Find a percentage of an amount. Use percentages to compare proportions.
5	N4.4	Understand and use direct proportion.
6 & 7	N4.5	Understand ratio. Simplify ratios. Divide an amount in a given ratio.

Test and Review (2 lessons)
Based on term 2 work.

Total Number of Lessons : 28

Year I : Term 3

A4 : Linear Equations (3 lessons)

Lesson	Spread	Content
1	A4.1	Simplify expressions. Construct and solve simple equations.
2	A4.3	Expand one pair of brackets.
3	A4.4	Construct and solve simple equations.

A4.2 can be returned to later if time permits.

S4 : Transformations (5 lessons)

Lesson	Spread	Content
1	S4.1	Understand reflection symmetry. Reflect shapes in a mirror line.
	S4.2	Reflect shapes in a mirror line, including lines at 45°.
2	S4.3	Translate shapes.
3	S4.4	Rotate shapes.
4	S4.5	Understand reflection and rotation symmetry.
5	S4.6	Recognise reflections, translations and rotations. *Optional.*

N5 : More Number Calculations (4 lessons)

Lesson	Spread	Content
1	N5.1	Round integers to the nearest 10, 100 or 1000. Round decimals to one decimal place.
3	N5.4	Multiply on paper.
4	N5.5	Divide on paper.
5	N5.6	Use equivalent fractions to compare fractions, and to add and subtract fractions with different denominators.

N5.2 is covered in more detail in Year II.
N5.3 can be returned to later if time permits.
N5.7 and N5.8 have already been covered in N2.

D3 : Analysing Statistics (2 lessons)

Lesson	Spread	Content
1	D3.3	Compare data using diagrams.
2	D3.4	Calculate and compare averages and ranges.

D3.1, D3.2 and D3.5 can be returned to later if time permits.

D4 is omitted completely due to time constraints.

Examination (1 week + 1 review lesson)
Based on all Year I work so far.

A5 : Equations and Graphs (2 lessons)

Lesson	Spread	Content
1 & 2	A5.1	Construct and solve simple equations.

The rest of A5 is revision of work already covered. You may wish to select certain spreads to do if you have time.

S5 : Polygons (3 lessons)

Lesson	Spread	Content
1	S5.3	Construct nets.
2	S5.5	Understand properties of polygons.
3	S5.6	Understand tessellations of polygons.

The rest of S5 can be returned to later if time permits.

Total Number of Lessons : 19 + examination period