

Unit 2: Number Skills

Textbook Sub-Unit	Sparx Independent Learning Topic & Code	
2.1 Factors, Primes & Multiples	Finding the lowest common multiple (LCM)	M227
	Finding the highest common factor (HCF)	M698
	Finding prime numbers	M322
2.2 Using Negative Numbers	Adding and subtracting with negative numbers	M106
	Multiplying and dividing with negative numbers	M288
2.3 Multiplying and Dividing	Using a written method to multiply integers	M187
	Using a written method to divide integers	M354
	Using a written method to divide by integers to get a decimal answer	M262
2.4 Squares and Square Roots	Calculating with roots and powers	M135
2.5 More Powers and Roots		
2.6 Calculations	Using the correct order of operations	M521

Unit 3: Equations, Functions and Formulae

Textbook Sub-Unit	Sparx Independent Learning Topic & Code	
3.1 Simplifying Algebraic Expressions &	Simplifying expressions containing multiple variables	M531
	Simplifying expressions containing non-linear terms	M949
3.2 Writing Algebraic Expressions	Algebraic Notation	M813
	Algebraic Terminology	M830
3.3 Using Formulae &	Substituting into algebraic formulae	M208
3.4 Writing Formulae	Substituting into expressions with multiple operations	M327
3.5 Brackets and Powers	Expanding single brackets	M237
3.6 Factorising Expressions	Factorising into one bracket	M100

Unit 4: Fractions

Textbook Sub-Unit	Sparx Independent Learning Topic & Code	
4.1 Working with Fractions	Simplifying fractions	M671
	Ordering fractions	M335
	Finding fractions of amounts without a calculator	M695
4.2 Adding and Subtracting Fractions	Adding and subtracting fractions	M835
4.3 Fractions, Decimals and Percentages	Converting between fractions, decimals and percentages	M264
	Ordering fractions, decimals and percentages	M553
4.4 Multiplying and Dividing Fractions	Multiplying fractions	M157
	Dividing fractions	M110
4.5 Working with Mixed Numbers	Adding and subtracting mixed numbers	M931
	Multiplying with mixed numbers	M197
	Dividing with mixed numbers	M265

Unit 5: Angles and Shapes

Textbook Sub-Unit	Sparx Independent Learning Topic & Code	
5.1 Angles and Parallel Lines	Vertically opposite angles	M163
	Angles on parallel lines	M606
5.2 Triangles	Angles in triangles	M351
5.3 Quadrilaterals	Angles in quadrilaterals	M679
	Using quadrilateral properties to find angles	M393
	Combining angles facts	M319
5.4 Polygons	Angles in polygons	M653

Unit 6: Decimals

Textbook Sub-Unit	Sparx Independent Learning Topic & Code	
6.1 Ordering Decimals	Decimal place value	M522
6.2 Rounding Decimals	Rounding decimals	M431
6.3 Adding and Subtracting Decimals	Adding decimals	M429
	Subtracting decimals	M152
6.4 Multiplying Decimals	Using a written method to multiply decimals	M803
6.5 Dividing Decimals	Using a written method to divide by integers to get a decimal answer	M262
	Using a written method to divide by decimals	M491
6.6 Fractions, Decimals, Percentages	Converting between fractions, decimals and percentages	M264
	Ordering fractions, decimals and percentages	M553
6.7 Working with Percentages	Percentage change without a calculator	M476
	Percentage change with a calculator	M533

Unit 7: Equations

Textbook Sub-Unit	Sparx Independent Learning Topic & Code	
7.1 Solving One-step Equations	Solving equations with one step	M707
7.2 Solving Two-step Equations	Solving equations with two or more steps	M509
7.3 More Complex Equations	Solving linear equations involving brackets	M902
	Solving equations with the unknown on both sides	M554
	Constructing and solving equations	M957
7.4 Trial and Improvement	n/a	

Unit 8: Multiplicative Reasoning

Textbook Sub-Unit	Sparx Independent Learning Topic & Code	
8.1 Metric and Imperial Units	Converting units of length, mass and capacity	M774
8.2 Writing Ratios	Writing and simplifying ratios	M885
	Using equivalent ratios to find unknown amounts	M801
8.3 Sharing in a Given Ratio	Sharing amounts in a given ratio	M525
8.4 Proportion & 8.5 Proportional Reasoning	Solving proportion problems	M478
8.6 Using the Unitary Method	Writing ratios in the form 1:n	M543
	Value for money	M681

Unit 10: Sequences and Graphs

Textbook Sub-Unit	Sparx Independent Learning Topic & Code	
10.1 Sequences	Term-to-term rules for numerical sequences	M381
	Term-to-term rules for sequences of patterns	M241
10.2 nth Term	Substituting into position-to-term rules	M166
	Position-to-term rules for arithmetic sequences	M991
10.3 Pattern Sequences	Position-to-term rules for sequences of patterns	M866
	Special sequences	M981
10.4 Coordinates and Line Segments	Reading and plotting coordinates	M618
10.5 Graphs	Plotting horizontal and vertical lines	M797