

Suggested Routes for Year 8A

The suggested routes here are only guidelines and you should use your professional judgement in making decisions about how appropriate particular sections are for your class. The key used means

- ✓ core material
- (✓) material that could at least, in part, be covered
- ✗ inappropriate material

Note though that, particularly on the Express route in the Arithmetic units, much of the core material will be revision and should be quickly recapped.

UNIT	Standard	Academic	Express
1. MATHEMATICAL DIAGRAMS			
1.1 Mileage Charts	✓	✓	✓
1.2 Using Flow Charts to Plan Practical Tasks	✓	✓	✓
1.3 Using a Flow Chart for Classification	(✓)	✓	✓
1.4 Networks	✓	✓	✓
1.5 Critical Path Analysis	✗	✗	✓
2. FACTORS			
2.1 Factors and Prime Numbers	✓	✓	✓
2.2 Prime Factors	✓	✓	✓
2.3 Index Notation	✓	✓	✓
2.4 Highest Common Factor and Lowest Common Multiple	(✓)	✓	✓
2.5 Squares and Square Roots	✗	(✓)	✓
3. PYTHAGORAS' THEOREM			
3.1 Pythagoras' Theorem	✓	✓	✓
3.2 Calculating the Length of the Hypotenuse	✓	✓	✓
3.3 Calculating the Lengths of Other Sides	✗	✓	✓
3.4 Problems in Context	(✓)	✓	✓
3.5 Constructions and Angles	✓	✓	✓
4. ROUNDING AND ESTIMATION			
4.1 Revision of the Four Rules: Whole Numbers	✓	(✓)	✗
4.2 Revision of the Four Rules: Decimals	(✓)	✓	(✓)
4.3 Order of Operations	✓	✓	✓
4.4 Problems in Context	✓	✓	✓
4.5 Rounding	✓	✓	✓
4.6 Estimating	(✓)	✓	✓
4.7 Calculator Logic - Bracket and Memory Keys	✗	✓	✓

UNIT	Standard	Academic	Express	
5. DATA ANALYSIS				
5.1	Frequency Tables: Discrete Ungrouped Data	✓	✓	✓
5.2	Mean, Median, Mode and Range	✓	✓	✓
6. NETS AND SURFACE AREA				
6.1	Common 2-D and 3-D Shapes	✓	✓	✓
6.2	2-D Representation of 3-D Shapes	✓	✓	✓
6.3	Plans and Elevations	✓	✓	✓
6.4	Nets and Surface Area of Cubes and Cuboids	✓	✓	✓
6.5	Nets of Prisms and Pyramids	✗	(✓)	✓
7. RATIO AND PROPORTION				
7.1	Equivalent Ratios	✓	✓	✓
7.2	Direct Proportion	✓	✓	✓
7.3	Proportional Division	(✓)	✓	✓
7.4	Linear Conversion	✓	✓	✓
7.5	Inverse Proportion	✗	✗	✓
8. ALGEBRA: BRACKETS				
8.1	Expansion of Single Brackets	✓	✓	✓
8.2	Linear Equations	✓	✓	✓
8.3	Common Factors	(✓)	✓	✓
8.4	Expansion of Two Brackets	✗	✓	✓
9. ARITHMETIC: FRACTIONS AND PERCENTAGES				
9.1	Revision of Operations with Fractions	✓	✓	✓
9.2	Fractions in Context	✓	✓	✓
9.3	Conversion of Fractions and Percentages	✓	✓	✓
9.4	Finding Percentages	✓	✓	✓
9.5	Increasing and Decreasing Quantities by a Percentage	(✓)	✓	✓
9.6	Finding the Percentage Increase and Decrease	✗	(✓)	✓
9.7	Reverse Percentage Calculations	✗	✗	✓

UNIT	Standard	Academic	Express
10. PROBABILITY - TWO EVENTS			
10.1	Recap: Basic Probability for One Event	✓	(✓) X
10.2	Outcomes with Two Events	✓	✓ ✓
10.3	Probability Using Listings	✓	✓ ✓
10.4	Multiplication Laws for Independent Events	(✓)	✓ ✓
10.5	Conditional Probability	X	X ✓
11. ANGLES, BEARINGS AND MAPS			
11.1	Angle Measures	✓	✓ X
11.2	Parallel and Intersecting Lines	✓	✓ ✓
11.3	Bearings	✓	✓ ✓
11.4	Scale Drawings	X	✓ ✓
