Year 9 Pathway B – Key vocabulary list

Appendix 1: Term 1

Unit 1: Proportional reasoning

1:n	Fraction	Percentage	Reduction
Decrease	Increase	Profit	Reverse percentage
Depreciate	Interest	Proportion	Scale
Direct proportion	Loss	Ratio	Simplest form
Discount	Multiplier	Reduce	

Unit 2: Angles and Pythagoras

Alternate	Hexagon (6 sides)	Parallel	Straight line
Angle	Hypotenuse	Pentagon (5 sides)	Sum
Co-interior	Interior angle	Point	Transversal
Corresponding	Irregular	Polygon	Triangle
Decagon (10 sides)	Isosceles	Pythagoras' theorem	Vertex
Exterior angle	Nonagon (9 sides)	Quadrilateral	Vertically opposite
Heptagon (7 sides)	Octagon (8 sides)	Regular	

Angle phrases to learn

- Angles around a point add up to 360°
- Angles on a straight line add up to 180°
- Vertically opposite angles are equal
- Angles in a triangle add up to 180°
- Base angles in an isosceles triangle area equal
- Alternate angles are equal
- Corresponding angles are equal
- Co-interior angles add up to 180°

Year 9 Pathway B – Key vocabulary list

Appendix 1: Term 2

Unit 3: Linear equations

Balance	Equals	Inverse operation	Solve
Brackets	Equation	Linear	Substitute
Coefficient	Expand	Simplify	Unknown
Collect like terms	Form	Solution	Variable

Unit 4: Calculations

$A \times 10^n$	Evaluate	Power	Square root
Approximate	Exponent	Power of 10	Standard form
Cube	Index	Round	Under-estimate
Cube root	Index laws	Significant figure	
Decimal place	n^{th} root	Simplify	
Estimate	Over-estimate	Square	

Year 9 Pathway B – Key vocabulary list

Appendix 1: Term 3

Unit 5: Graphs

Coordinates	Implicit function	Parallel	x-axis
Coordinate pair	Line	Plot	$y = mx + c$
Equation	Linear	Positive	y-axis
Function	Negative	Straight line graph	y-intercept
Gradient	Origin	Substitute	

Unit 6: Measures

Area	Compound units	Parallel	Radius
Base	Density	Parallelogram	Semicircle
Centre	Diameter	Perimeter	Trapezium
Circle	Height	Perpendicular height	Triangle
Circumference	Length	Pi π	Volume
Compound shape	Mass	Quadrant	Width

Year 9 Pathway B – Key vocabulary list

Appendix 1: Term 4

Unit 7: Number Skills

Cube root	Factor	Prime	Product of primes
Decomposition	Index form	Prime factors	Square root
Exactly 2 factors	Power	Product	

Unit 8: Probability

A and B	Decimal	Fraction	Probability of A is P(A)
A or B	Equally likely outcomes	Impossible	Relative frequency
At least one	Even chance	Independent	Route
At most one	Event	Likelihood	Sum to 1
Biased	Exactly one	Mutually exclusive	Theoretical probability
Branch	Expected value	Number of trials	Tree diagram
Certain	Experiment	Outcome	Trial
Chance	Experimental probability	Probability	With replacement
Combined event	Fair	Probability of “not A” is P(A’)	

Unit 9: Expressions and formulae

Bracket	Equal =	Index	Show
Change the subject	Equation	Index laws	Square
Coefficient	Expand	Inverse operations	Square root
Collect terms	Factor	Multiplier	Subject
Common factor	Factorise	Power	Substitute
Construct	Formula	Rearrange	

Year 9 Pathway B – Key vocabulary list

Appendix 1: Term 5

Unit 10: Trigonometry

Adjacent	Hypotenuse	Right- angle 90°	Tangent (tan)
Alpha α	Inverse operation	Right-angled triangle	Theta θ
Angle	Isosceles	Side	Triangle
$\cos^{-1}$	Length	$\sin^{-1}$	Trigonometry
Cosine (cos)	Opposite	Sine (sin)	Vertex
Diagonal	Ratio	$\tan^{-1}$	

Unit 11: Representing and interpreting data

Average	Highest value	Maximum	Mode
Back-to-back	Interpret	Mean	Plot
Compare	Interval	Median	Range
Frequency	Key	Median	Spread
Frequency table	Leaf	Mid-interval value	Stem
Greater than	Less than	Minimum	Stem-and-leaf
Grouped data	Lowest value	Modal interval	

Year 9 Pathway B – Key vocabulary list

Appendix 1: Term 6

Unit 12: Transformations

Angle	Direction	Line $y = x$	Scale factor
Anticlockwise	Enlarge	Line $y = -x$	Transformation
Centre of enlargement	Enlargement	Object	Translate
Centre of rotation	Image	Reflect	Translation
Clockwise	Line of reflection	Reflection	x-axis
Column vector	Line $x = a$	Rotate	y-axis
Combined transformations	Line $y = b$	Rotation	

Unit 13: Constructions

Angle	Compasses	Line	Perpendicular from a point
Angle bisector	Construct	Midpoint	Perpendicular to a point
Arc	Equidistant	Perpendicular	Ruler
Bisect	Intersect	Perpendicular bisector	