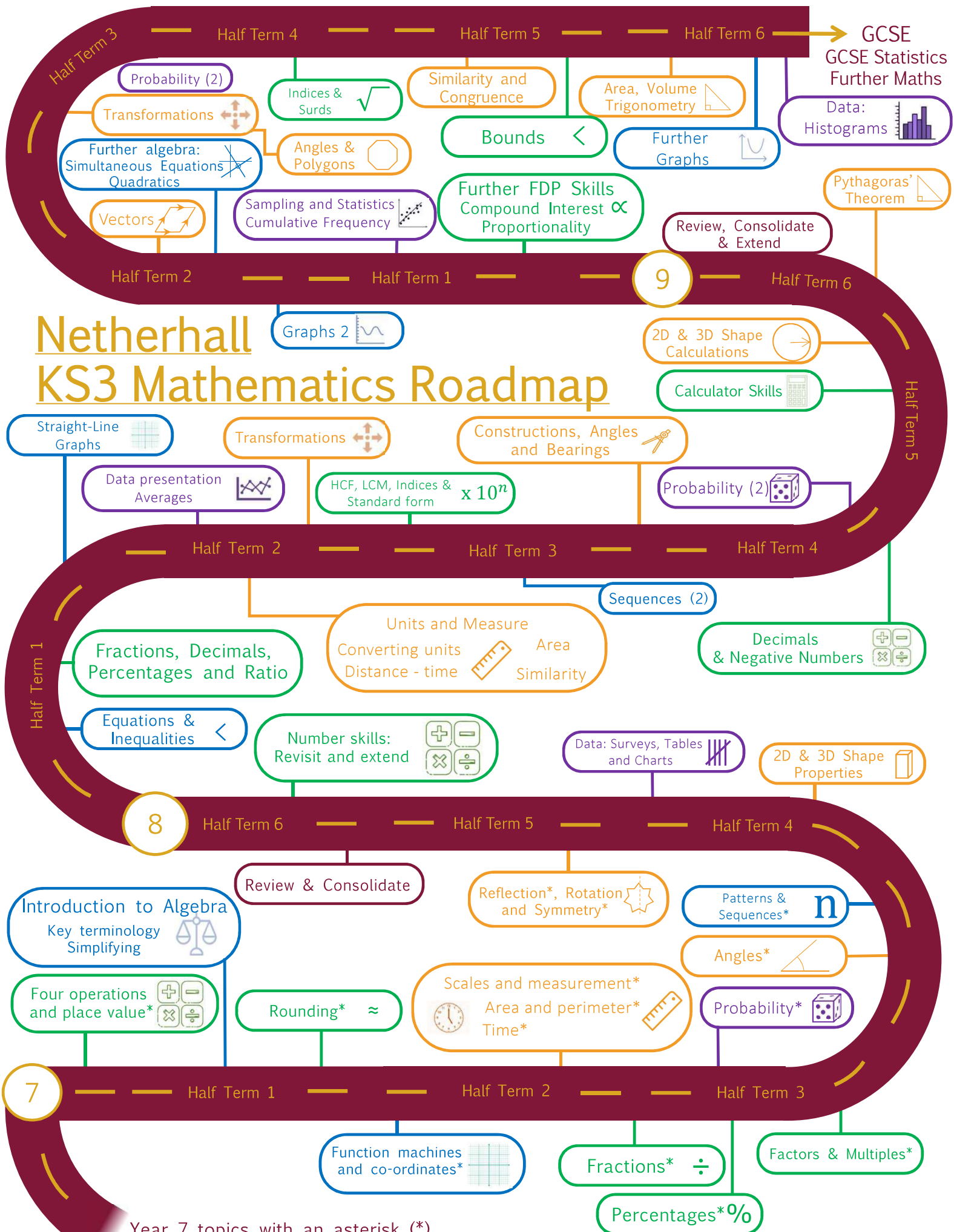


Netherhall KS3 Mathematics Roadmap



Year 7 topics with an asterisk (*) consolidate and further prior KS2 knowledge

Half Term 3

Consolidation & revision

A Level Mathematics
L3 Core Maths

Mock Exams

Indices & Surds $\sqrt{\quad}$

Standard form $\times 10^n$

Circles & Circle Theorems

Constructions & Loci

Pythagoras & Trigonometry

3D Pythagoras & Trigonometry

Probability:
Further Venn & Tree Diagrams

$A \cap B$

Graph Transformations

Vectors

Transformations

Half Term 2

Half Term 1

11

$$\text{Mean} = \frac{\sum fx}{\sum f}$$

Mock Exams

$$a^2 = b^2 + c^2 - 2bc \cos(A)$$

$$a^2 + b^2 = c^2$$

Mock Exams

Averages & Range Σ

Statistics $f(x)$

Angles & Polygons

Circles & Circle Theorems

Ratio & Proportion $:$

Further Algebra

Half Term 5

Half Term 6

KS4 Mathematics Roadmap

$$V = \pi r^2 h$$



Quadratics

Functions $f(x)$

Bounds $<$

Graphs 2

Straight-Line Graphs

Fractions \div

Mock Exams

Half Term 4

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Vectors

Transformations

Symmetry & Similarity

$P(A \cap B)$

\emptyset $A \cup B$

Probability

Venn Diagrams

Constructions & Loci

Pythagoras & Trigonometry

Area & Volume

Measure

10

Half Term 1

Half Term 2

Half Term 3

Equations Expressions

Inequalities & Formulae

Expanding & Factorising

Simultaneous Equations

$$\frac{xy^2}{x^2y}$$

Indices & Surds $\sqrt{\quad}$

Expressions & Sequences **n**

Half Term 3

Half Term 4

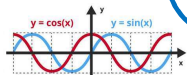
Consolidation & revision

Further Trigonometry

$$\sin^2 \theta + \cos^2 \theta \equiv 1$$

Circle Theorems, Pythagoras & Trigonometry

Mock (Paper 1)



Mock (Paper 1 & 2)

$\frac{dy}{dx}$ Calculus & Matrices

$$\begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

$$y - y_1 = m(x - x_1)$$

Functions & graphs $f(x)$

Algebraic Methods Expanding, factorising, rearranging

Half Term 2

Half Term 1

11

Further Algebra Polynomials, Equations, Co-ordinate Geometry & Sequences

$$(x - a)^2 + (y - b)^2 = r^2$$

Combinations & Binomial Expansion $(a + b)^n$

Ratio & Surds $\sqrt{\quad}$

Year 11: Level 2 Further Maths

Exam: Paper 1 & 2

Prior Knowledge Review Algebraic Methods, Number Skills & Shape

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Half Term 5

Half Term 6

Advanced Maths Roadmap

Mock 2 (Paper 1 & 2)

Probability (2) Binomial Distribution Normal Distribution

Index Numbers RPI, CPI, GDP Quality Assurance & Control Charts

Probability (1) Venn Diagrams, Risk Conditional Probability

Mock 1 (Paper 1)

Half Term 4



$$\sigma = \sqrt{\frac{\sum x^2}{n} - \left(\frac{\sum x}{n}\right)^2}$$

Collecting Data Sampling methods Estimation, Reliability Reducing bias

Processing & representing data Types of graphs Interpreting & comparing data

Analysing Data Measures of central tendency and dispersion Regression and correlation Seasonal variation

10

Half Term 1

Half Term 2

Half Term 3

Year 10: GCSE Statistics

Continuous theme: Statistical Enquiry Cycle - Project

