

Updates to STP National Curriculum Mathematics: summary of main changes. 7, 8 and 9

The A series of books

7A (pagination preserved)

Several worked examples amended to include reverse worked checks.

The terminology “squared” and “cubed” added to page 53.

How to find the co-ordinates of the midpoint of a line given the co-ordinates of its end points added to Chapter 16, page 311.

The terminology “time series” added to page 341.

The definition of a line segment added to page 345.

8A (pagination preserved)

Several worked examples amended to include reverse worked checks.

Some worked examples amended to emphasise that a percentage means a number of hundredths.

A section on the conditions for parallel and perpendicular lines whose equations are known added to Chapter 13, page 271.

The connection between straight line graphs through the origin and direct proportion added to Chapter 13, page 273.

Practical work on using a spreadsheet to work out the table of values needed to plot a graph and using the chart tool to draw the graph added on page 389.

Questions added to Exercise 21D on using Pythagoras’ Theorem to find the distance between two points whose co-ordinates are given.

9A (pagination preserved up to Chapter 19)

A section on using numbers in standard form added to the end of Chapter 1 (based on the work in the original 10A book).

The section in Chapter 2, page 45, on independent events extended to cover dependent events. Exercise 2B has changes to some questions to reflect this. A section on expressions, identities and equations added to Chapter 5, page 116.

A section on stem-and-leaf diagrams added to Chapter 8.

The practical work at the end of Chapter 8 reworded to reflect the data handling cycle.

A question on construction of triangles added to Exercise 10D to strengthen understanding that AAS and AAA do not give unique triangles.

Chapter 19 taken to Book 10A and replaced with a new chapter containing work on planes of symmetry and plans and elevations.

Chapter 20 taken to Book 10A and replaced by a new chapter on geometry and proof containing the need for proof, proof that the sum of the interior angles in any triangle is 180° and that an exterior angle of a triangle is equal to the sum of the interior opposite angles, the use of a counter example, the tangent radius property of circles (based on the work in the original 10A book).

**Updates to STP National Curriculum Mathematics:
summary of main changes.**

7, 8 and 9

The B series of books

7B (pagination preserved)

Some worked examples amended to include reverse worked checks.

8B (pagination preserved)

Several worked examples amended to include reverse worked checks.

Some worked examples amended to emphasise that a percentage means a number of hundredths.

9B (pagination preserved)

A question is added to Exercise 3C to strengthen finding one quantity as a fraction or percentage of another quantity.

A section on how to construct a regular polygon is added to chapter 6.

Work added to Exercise 13D on writing down the equation of a straight line when the gradient and y-intercept are known.

**Updates to STP National Curriculum Mathematics:
summary of main changes.
Higher Course 10A and 11A**

10 Higher A

New chapter 1 (old chapter 19 from 9A - Algebraic Fractions).

Old chapters 1 and 2 become chapters 2 and 3.

Old chapter 3 becomes chapter 4 and includes a new section on solving quadratic equations by completing the square.

Old chapters 4 and 5 become new chapters 5 and 6.

Old chapters 6 and 7 are combined to make new chapter 7 with the following sections removed: the area under a curve, the trapezium rule, finding the distance covered from a velocity-time graph.

The section on inverse and identity transformations removed from chapter 8.

The section dealing with the angle between two planes removed from chapter 9.

Chapter 12 is renamed “Congruent Triangles” and the sections on proof and the use of a counter example has been taken back to Book 9A.

Chapter 13 is renamed “Angles in a Circle” and includes the contents of chapter 20 from Book 9A. The section on loci has been removed.

Chapter 15 (on standard deviation) has been removed.

Old chapter 16 becomes chapter 15 and includes a new section on moving averages. The section on reduction to a linear law is removed.

11A (Higher proposed changes)

A new section on necessary and sufficient conditions added to chapter 1.

A new section on the use of the power key on a calculator for dealing with exponential growth and decay and compound interest in chapter 3.

A new section on box plots added to chapter 6.

A new chapter covering the equation of a circle and the solution of simultaneous equations where one is quadratic and the other is linear.

Chapter 8 will be altered to take account of the new coursework specifications.

Updates to STP National Curriculum Mathematics: summary of main changes. Intermediate Course 10B and 11B

10B Intermediate (pagination preserved)

Several questions are added to exercises in chapter 1 to strengthen work on indices, HCF and LCM.

Some worked examples amended to include reverse worked checks.

Work in chapter 6 on algebraic fractions now includes quadratic factors.

Some questions changed in chapter 10 to include leaving answers in exact form, i.e. in

square root form, and to strengthen the work on changing units of length and area.

The terminology “upper and lower bound” has been removed, but the work is otherwise unchanged.

Some questions in Chapter 11 are changed to include the effect of enlargement on perimeter.

Some questions in chapter 12 are changed to include finding the equation of a line given two points on the line.

Some questions in chapter 14 are changed to include formulae involving B .

The section on compound change in chapter 16 altered to include the use of a multiplier raised to a power.

11B Intermediate (proposed changes)

Three new chapters to be added:

one on number work to include recurring decimals, more practise using negative and fractional indices, the use of surds and B in exact answers;

one on collecting data and stem-and-leaf diagrams;

one on time series including trends and moving averages.

Ruler and compasses constructions in chapter 8 to be extended to cover finding the midpoint of a line and drawing a perpendicular to a line from a point on that line.

Addition of a section on box plots to chapter 9.

Chapter 10 to be extended to include all the angles in a circle theorems and the tangent radius property.

Chapter 11 will be altered to take account of new coursework specifications.