Edexcel GCSE
Mathematics A
Linear
Higher
Teacher Guide

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# Contents

## 1 Number
1.1 Understanding prime factors, LCM and HCF 2  
1.2 Understanding squares and cubes 4  
1.3 Understanding order of operations 6  
1.4 Using a calculator 8  
1.5 Understanding the index laws 10

## 2 Expressions and sequences
2.1 Collecting like terms 12  
2.2 Using substitution 14  
2.3 Using the index laws 16  
2.4 Fractional and negative powers 18  
2.5 Term-to-term and position-to-term definitions 20  
2.6 The nth term of an arithmetic sequence 22

## 3 Fractions
3.1 Adding and subtracting fractions and mixed numbers 24  
3.2 Multiplying fractions and mixed numbers 26  
3.3 Dividing fractions and mixed numbers 28  
3.4 Fraction problems 30

## 4 Decimals and estimation
4.1 Conversion between fractions and decimals 32  
4.2 Carrying out arithmetic using decimals 34  
4.3 Decimal places 36  
4.4 Significant figures 38  
4.5 Estimating calculations by rounding 40  
4.6 Estimating calculations involving decimals 42  
4.7 Manipulating decimals 44  
4.8 Converting recurring decimals to fractions 46  
4.9 Upper and lower bounds of accuracy 48  
4.10 Calculating the bounds of an expression 50

## 5 Angles and polygons
5.1 Angle properties of parallel lines 52  
5.2 Proving the angle properties of triangles and quadrilaterals 54  
5.3 Using the angle properties of triangles and quadrilaterals 56  
5.4 Angles of elevation and depression 58  
5.5 Bearings 60  
5.6 Using angle properties to solve problems 62  
5.7 Polygons 64

## 6 Collecting and recording data
6.1 Introduction to statistics 66  
6.2 Sampling methods 68  
6.3 Stratified sampling 70  
6.4 Collecting data by observation and experiment 72  
6.5 Questionnaires 74  
6.6 Two-way tables 76
Contents

6.7 Sources of bias 78
6.8 Secondary data 80

7 Measure
7.1 Converting between units of measure 82
7.2-4 Compound measures; Speed; Density 84

8 Congruence, symmetry and similarity
8.1 Congruent triangles 86
8.2-3 Symmetry in 2D shapes; Symmetry of special shapes 88
8.4 Recognising similar shapes 90
8.5 Similar triangles 92

9 Expanding brackets and factorising
9.1 Expanding brackets 94
9.2 Factorising by taking out common factors 96
9.3 Expanding the product of two brackets 98
9.4 Factorising quadratic expressions 100

10 Area and volume 1
10.1 Perimeter of shapes 102
10.2-3 Area of rectangles, triangles, parallelograms and trapeziums; Problems involving perimeter and area 104
10.4 Circles 106
10.5 Circumference and area of a circle 108
10.6 Drawing 3D shapes 110
10.7 Elevations and plans 112
10.8-10 Volume of a cuboid; Volume of a prism; Volume of a cylinder 114

11 Averages and range
11.1-3 Finding the mode and median; Calculating the mean; Using the three types of average 116
11.4 Using frequency tables to find averages 118
11.5-6 Modal class and median of grouped data; Estimating the mean of grouped data 120
11.7 Range, quartiles and inter-quartile range 122

12 Constructions and loci
12.1 Perpendicular lines 124
12.2 Constructing and bisecting angles 126
12.3 Loci 128
12.4 Regions 130
12.5 Constructing triangles 132
12.6 Scale drawings and maps 134

13 Linear equations
13.1 Solving simple equations 136
13.2 Solving linear equations containing brackets 138
13.3 Solving linear equations with the unknown on both sides 140
13.4 Solving linear equations containing fractions 142
13.5 Solving simple linear equations 144
13.6 Distinguishing between ‘equation’, ‘formula’, ‘identity’ and ‘expression’ 146

14 Percentages
14.1 Working out a percentage of a quantity 148
14.2 Finding the new amount after a percentage increase or decrease 150
Contents

14.3 Working out a percentage increase or decrease 152
14.4 Working out compound interest 154
14.5 Calculating reverse percentages 156

15 Graphs
15.1 Drawing straight line graphs by plotting points 158
15.2 Finding the midpoint of a line segment 160
15.3 The gradient and \( y \)-intercept of a straight line 162
15.4 The equation \( y = mx + c \) 166
15.5 Parallel and perpendicular lines 170
15.6 Real-life graphs 172

16 Ratio and proportion
16.1 Introducing ratio 174
16.2 Solving ratio problems 176
16.3 Sharing a quantity in a given ratio 178
16.4 Using direct proportion 180
16.5 Using inverse proportion 182

17 Transformations
17.1 Understanding transformations 184
17.2 Using translations 186
17.3 Transforming shapes using reflections 188
17.4 Transforming shapes using rotations 190
17.5 Enlargements and scale factors 192
17.6 Centre of enlargement and the scale factor 194
17.7 Combinations of transformations 196

18 Processing, representing and interpreting data
18.1-2 Producing pie charts; Interpreting pie charts 198
18.3 Representing and interpreting data in a stem and leaf diagram 200
18.4 Interpreting comparative and composite bar charts 202
18.5-7 Drawing and interpreting frequency diagrams and histograms; Drawing and using frequency polygons; Drawing and using histograms with unequal class intervals 204
18.8-9 Drawing and using cumulative frequency graphs; Finding quartiles from a cumulative frequency graph 206
18.10 Drawing and interpreting box plots 208

19 Inequalities and formulae
19.1 Representing inequalities on a number line 210
19.2 Solving simple linear inequalities in one variable 212
19.3 Finding integer solutions to inequalities in one variable 214
19.4 Solving graphically several linear inequalities in two variables 216
19.5 Using formulae 218
19.6 Deriving an algebraic formula 220
19.7 Changing the subject of a formula 222
19.8 Changing the subject in complex formula 224

20 Pythagoras’ theorem and trigonometry 1
20.1-2 Pythagoras’s Theorem; Applying Pythagoras’ Theorem 226
20.3 Finding the length of a line segment 228
20.4-5 Trigonometry in right-angled triangles; Working out lengths of sides using trigonometry 230

21 More graphs and equations
21.1 Graphs of quadratic functions 232
21.2 Graphs of cubic functions 234
21.3 Graphs of reciprocal functions 236
21.4 Graphs of exponential functions 238
21.5 Solving equations by the trial and improvement method 240

22 Quadratic and simultaneous equations
22.1 Solving simultaneous equations 242
22.2 Setting up equations in two unknowns 244
22.3 Using graphs to solve simultaneous equations 246
22.4 Solving quadratic equations by factorisation 248
22.5 Completing the square 250
22.6 Solving quadratic equations by completing the square 252
22.7 Solving quadratic equations using the formula 254
22.8 Solving algebraic fraction equations leading to quadratic equations 256
22.9 Setting up and solving quadratic equations 258
22.10 Constructing graphs of simple loci 260
22.11 Solving simultaneous equations when one is linear and the other is quadratic 262
22.12 Solving simultaneous equations when one is linear and one is a circle 264

23 Area and volume 2
23.1-2 Sectors of circles; Problems involving circles in terms of _ 266
23.3 Units of area 268
23.4-6 Volume of a pyramid and a cone; Volume of a sphere; Volume of harder shapes 270
23.7 Units of volume 272
23.8-9 Surface area of a prism; Surface area of harder shapes 274
23.10 Coordinates in three dimensions 276

24 Line diagrams and scatter graphs
24.1-4 Drawing and using line graphs; Drawing and using scatter graphs; Recognising correlation; Drawing lines of best fit 278
24.5 Using lines of best fit to make predictions 280

25 Indices, standard form and surds
25.1 Using zero and negative powers 282
25.2 Using standard form 284
25.3 Working with fractional indices 286
25.4 Using surds 288

26 Similar shapes
26.1 Areas of similar shapes 290
26.2 Volumes of similar shapes 292
26.3 Lengths, areas and volumes of similar shapes 294

27 Proportion
27.1 Direct proportion 298
27.2 Further direct proportion 298
27.3 Writing statements of proportionality and formulae 300
27.4 Problems involving square and cubic proportionality 302
27.5 Problems involving inverse proportion 304
Edexcel’s GCSE Mathematics materials

This GCSE Mathematics course has been developed by Edexcel to support you in teaching our new GCSE Mathematics specifications. All the materials have been fully referenced to the specifications. The course offers the following components for each of the Foundation and Higher Tiers:

- **Student Book** with graded questions, lots of support for the new Assessment Objectives and our unique Examiner insight from Results Plus.
- **ActiveTeach** CD-ROM to support you in use of ICT for whole-class teaching, and in your lesson planning and management.
- **Teacher’s Guide**, providing lesson objectives, topic grades, ideas for activities including the use of ICT in ActiveTeach and resource sheets to support students completing exercises in the Student Book. Word and Pdf files of all material available on the CD-ROM which is included and which will integrate with the ActiveTeach.
- **Practice Books**: with one-to-one matching of Student book exercises. Pdfs of the material for upload to the school VLE or network are available separately and will integrate with ActiveTeach.
- **Targeted Practice Books**: providing support for G to F students; extension material for A to A* students and Booster C material for those all important borderline D/C students. Pdfs of the material for upload to the school VLE or network are available separately and will integrate with ActiveTeach.
- **Assessment Pack** containing End of chapter tests; extra A02 and A03 practice questions; and a set of Exam Practice Papers with mark schemes. Word and Pdf files of all material are available on the accompanying CD-ROM which will integrate with ActiveTeach.
- **ResultsPlus Booster C**, designed to boost the grades of your D/C borderline students. It provides web-delivered homeworks and tests for individual formative assessment with detailed teacher and pupil feedback.
- **ResultsPlus Progress tests** provide web-delivered individual summative assessment matched to the new specification.
- **SupportPlus website** contains information about the specifications, training events, support and sample materials. An Edexcel Maths-users-only area gives further detailed support for teaching the specification.

Support for teaching the new Assessment Objectives

<table>
<thead>
<tr>
<th>Assessment Objective</th>
<th>What it is</th>
<th>What this means</th>
<th>Approx % of marks in the exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>A01</td>
<td>Recall and use knowledge of the prescribed content.</td>
<td>Questions testing your knowledge of each topic.</td>
<td>45-55</td>
</tr>
<tr>
<td>A02</td>
<td>Select and apply mathematical methods in a range of contexts.</td>
<td>Questions asking you to decide what method you need to use to get to the correct answer.</td>
<td>25-35</td>
</tr>
<tr>
<td>A03</td>
<td>Interpret and analyse problems and generate strategies to solve them.</td>
<td>Problem solving: Deciding how and explaining why</td>
<td>15-25</td>
</tr>
</tbody>
</table>

The new assessment objectives means that question styles within the exam are changing, with more problem-solving, open-style questions being set. These new question types are clearly marked in the Student books and also have dedicated spreads for further practice. Yet more questions are available in the Practice Books and in the Assessment Pack. Further interactive support is offered in the ActiveTeach with interactive examples and in the Assessment pack.

The examination and the course

Written by examiners who thoroughly understand the new specification, all the material you need to prepare students for the examination is available from this course and has been carefully developed and reviewed.

- All questions show targeted grades.
- ResultsPlus examiner tips help students to gain those extra few marks in the examination.
- Past exam questions and exam style questions can be found in the Chapter Review at the end of each chapter. These have been chosen or specifically written to ensure they are a true reflection of the style of questions that might appear in the examination.
• Written by examiners. the Assessment Pack contains:
  • editable end-of-chapter tests for you to use or adapt for student assessment. All answers are provided.
  • a bank of A02 and A03 questions for extra practice of these assessment objectives
  • examination practice papers, to help your students become familiar with the types of questions they will be asked in the exam.
  • Formative and summative electronic tests are available through our online ResultsPlus Booster C and Results Plus Progress tests.

• References to the specification are given in student friendly language in the Student books and in full in the Teacher’s Guide.
• The Teacher Guide CD contains electronic copies of the scheme of work and the specification both of which contain references to the relevant sections of the Student book, Practice books and Teacher Guide.
• A blank self-assessment sheet is available on the Teacher Guide CD to enable students to reflect on a topic. Cross referencing on the self-assessment sheet points students back to the book if they need to revise.

A topic from Edexcel’s GCSE Mathematics course
As well as the concise Starters, Main teaching and learning points and Plenary, the lesson notes also contain:

Specification references for the 2010 specification and for Functional skills.

Prior knowledge, skills and concepts highlighted where applicable.

Key mathematical vocabulary pulled out; this is also available on the ActiveTeach with written and spoken definitions in English and a multilingual spoken glossary.

Sections detailing common misconceptions, and possible enrichment activities to challenge students and check their understanding are also included where appropriate.

Teaching and Learning
Saving you time and guiding you through the new specification, the Teacher’s guide contains concise, easy-to-read Lesson plans and extra Guided Practice Worksheets which are available as editable Word files and pdfs on the CD-ROM.

• At a glance specification references and detail.
• Starter ideas to check that students have the required prior knowledge.
• Main teaching and learning points to help you teach the topic itself.
• Plenary questions to test understanding and application of the mathematics.
Introduction (Continued)

• Common misconceptions, and possible enrichment activities are also included where appropriate.
• Editable scheme of work available on the CD-ROM.
• Guided practice worksheets with remediation questions. As these are support worksheets, some of the questions may fall below grade levels.
• Integrates fully with ActiveTeach if installed.

Digital products

ActiveTeach

ICT is seamlessly incorporated into mathematics lessons by using the unique, networkable, VLE compatible ActiveTeach.

ActiveTeach is a front-of-class teaching tool allowing you to display the Student Books on your whiteboard or through your VLE, while giving access to a wealth of activities, video clips, quizzes and other activities.
• BBC Active clips bring maths to life. Accompanying each clip are teacher mediated questions, and a worksheet for students to complete.
• ResultsPlus interactive problem-solving activities provide whole class practice of the new AO2 and AO3 style questions with our unique three-part tool.
• ResultsPlus knowledge checkers test AO1 recall with a multiple choice test at the end of each chapter.
• High-quality interactive content integrates seamlessly with the Student Book.
• Multi-lingual glossary gives audio translations for common maths terms in five languages.
• My lessons area allows you to personalise content by adding your own links, interacting directly with the text and saving your annotations, enabling you to reapply your thinking the next time you deliver the lesson.

ResultsPlus Booster C

Easy to adopt, set up and administer, ResultsPlus Booster C is an online service that takes borderline D/C students through highly targeted practice to boost their performance and help them get that all-important C grade.
• Dynamically generated guided practice questions, labelled by grade, give students a variety of practice to meet their needs exactly.
• Edexcel exam-style questions onscreen, give the benefits of instant examiner feedback, and familiarity with the new GCSE question types and requirements.
• Online delivery ensures total currency of questions for the new specification.
• Links to other course components, give students and teachers a clear, consistent learning experience.

ResultsPlus Progress tests

Our online diagnostic assessment service helps you improve your students’ performance before it’s too late. Great for embedding Assessment for Learning into your course, it gives you access to exactly the information you need, to help tackle areas of weakness for each student.
• Ten topic-based tests, all with 25 questions that are perfect for both linear and modular courses.
• Each topic test can be taken individually or linked with others to create more comprehensive unit, termly or mock-style assessments.

SupportPlus website

www.edexcelmaths.com/supportplus

Our dedicated website with information about the specifications, training events, support and sample materials. An Edexcel Maths users-only area gives detailed support including
• Interactive Schemes of Work
• Teaching Resources – Lesson Plans and Practice Worksheets
• Exam Question Editor
• Updates from Subject Leader Graham Cumming
• ICT Blog
• Community Area
• Answers to questions in printed materials not included with the book

Icons used in the Student books

• Assessment objective questions are classified as AO2 and/or 3. These questions follow the more open structure demanded by QCDA for the new specification and are not available in earlier GCSE publishing schemes.
• Functional skills indicates questions that cover functional elements of GCSE maths.
• Quality of Written Communication (QWC) identifies questions that follow the style of QWC questions in the exam.
• Non-calculator indicates questions where students must not use a calculator to find the answer. It does NOT indicate that the subject area covered by the question will only appear in the non-calculator paper of the exam.