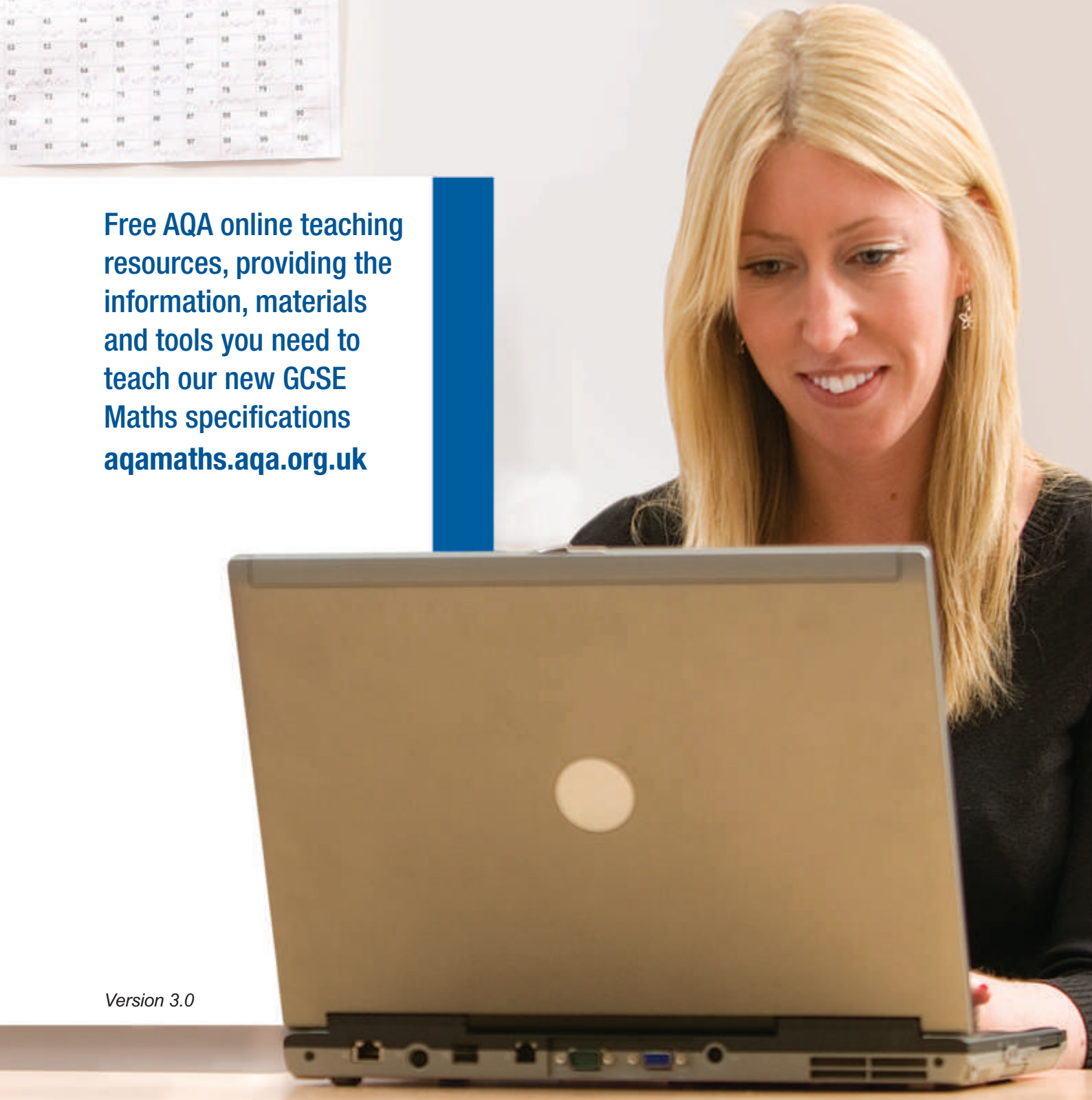


# *AQA All About Maths*

Your guide to getting the most from our GCSE Maths resources

A photograph of a blonde woman with long hair, smiling as she looks at a laptop. The laptop is silver and has a circular logo on the back. In the background, there is a whiteboard with a grid of numbers and some faint writing. A vertical blue bar is positioned to the left of the woman.

Free AQA online teaching resources, providing the information, materials and tools you need to teach our new GCSE Maths specifications  
[aqamaths.aqa.org.uk](http://aqamaths.aqa.org.uk)

# Teaching AQA GCSE Maths is now clearer and easier

## *AQA All About Maths* is an exclusive, free, online package of teaching resources

We are delighted to have worked with hundreds of teachers during our major programme of maths pilots. We have harnessed their knowledge and expertise to offer an exciting range of new teaching information, materials and tools.

Our teaching resources are fully interactive, allowing you to organise, adapt and personalise for your own teaching needs. Resources include:

- **interactive Route Maps** to create schemes of work
- specifications broken down into teaching topics, with a recommended **teaching order** and **suggested teaching time** required
- **lesson plans** and other new and **innovative supporting resources**, including **homework sheets** and **practice papers**
- a **personal storage area** for adding, organising and adapting resources.



## Exampro – free of charge

Exampro has been customised to **link seamlessly to each of the teaching topics**. It will be updated with new questions after each exam session. It already contains:

- hundreds of questions from our past papers
- questions from the pilot exams
- questions from the specimen question papers
- all with mark schemes and examiners' notes.

# How this guide will help you

This guide to *AQA All About Maths* will help you to:

- **understand** what new materials and teaching resources are available
- **use the** resources to plan, prepare and deliver the new GCSE Maths specifications more effectively.

## Let *AQA All About Maths* help your teaching

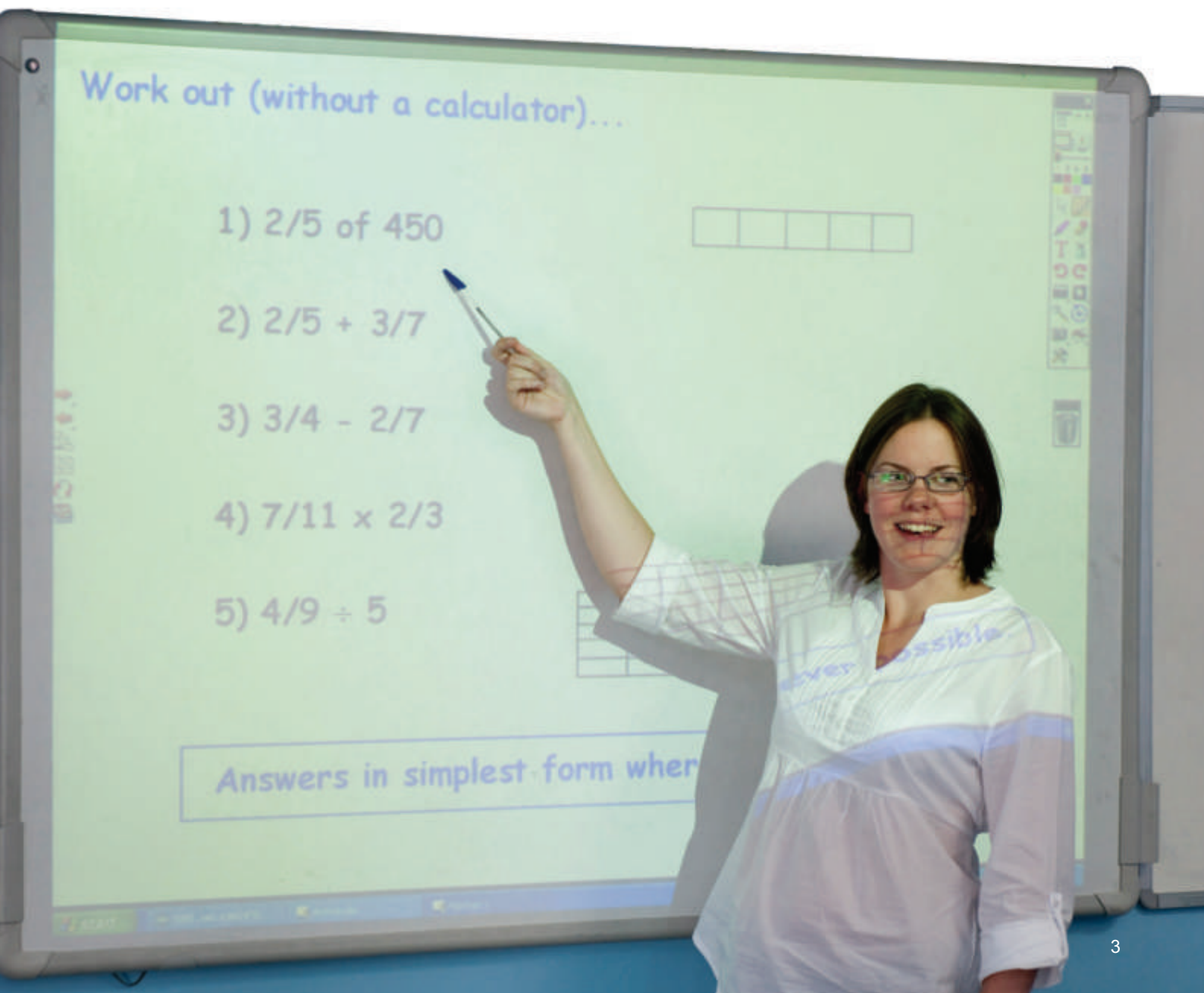
- **Have confidence in how you're teaching** – you'll have access to valuable new teaching resources that have been designed by teachers for teachers. They're already tried and tested and approved by AQA, so you can be confident that they'll help you to teach effectively.
- **Save time** – you don't need to reinvent the wheel when resources for our new specifications have already been prepared, tested thoroughly and are here for you to use right now.
- **You're in control** – resources are interactive so you can decide exactly how you would like to teach the new specifications by organising and adapting them to suit your needs.
- **Everything in one place and readily accessible** – whether you're logging on from school, home or on the move, you'll have access to our resources and your own personalised folders and resources.
- **Share your experiences with others**, and learn from them – our online community and discussion forums allow you to share your experiences, and share your own most useful resources with other teaching professionals.

**'I think *AQA All About Maths* is a step up from other examination boards and a brilliant service'**

**Kalpesh Patel, Head of Mathematics, Coombe Boys School**

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# Registering to use *AQA All About Maths*

It's possible to access some resources without registering, but to get full use of all the free resources and use the interactive aspects, you'll need to register.

Free resources	Registered?	
	Yes	No
<b>Access to teaching materials:</b>		
Assessment guidance	✓	✓
Lesson plans and starters	✓	•
Problem sheets	✓	•
Homework sheets	✓	•
Practice papers	✓	•
Route Maps – create schemes of work	✓	✓
<b>Exampro – creates practice papers</b>	✓	•
<b>Personal storage area – My AQA folder</b>	✓	•
<b>Community – submit resources</b>	✓	•
<b>Discussion – online forums</b>	✓	•
<b>Regular e-mail updates</b>	✓	✓

For details on how to sign up to teach and register for *AQA All About Maths*, visit [aqamaths.aqa.org.uk](http://aqamaths.aqa.org.uk), select 'How to register' and follow the on screen steps.

## How to log on

### Logging on to *AQA All About Maths*

#### Step 1

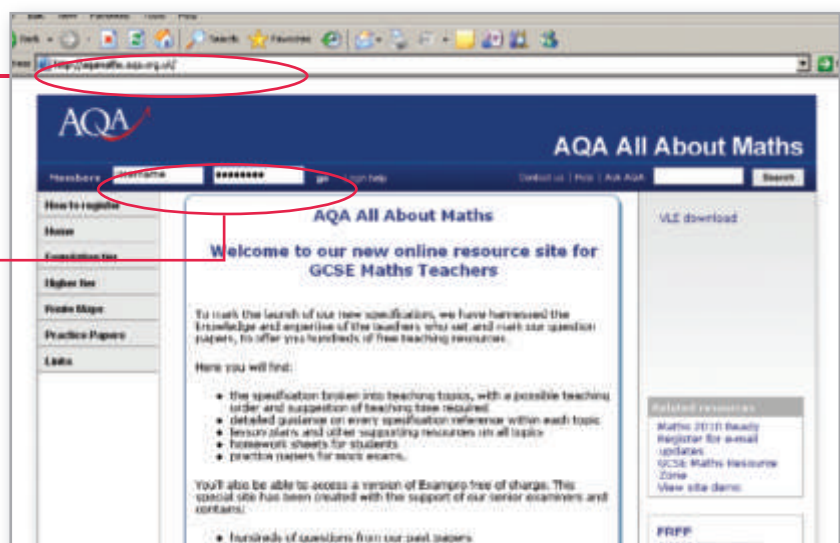
Enter the address [aqamaths.aqa.org.uk](http://aqamaths.aqa.org.uk) into your web browser

#### Step 2

Enter your **username** and **password** and select **go**

#### Notes on this web page:

- delete or overwrite the pre-populated information in the username and password fields
- your username will be your e-mail address.





## Amending the calendars

The teaching topics represent a sensible amount of time to cover the content in detail, but you can alter the width of each tile to match your required teaching duration. Just select a tile and adjust the width by dragging the sides using the mouse.

Tiles can also be moved around the calendar to suit your own teaching order. Select a tile, then drag and drop it using the mouse.

**Tip:** We've used 'standard' school holidays, but there are variations between local authorities so you may want to adjust these tiles first.

Once you've set up the Route Map for your teaching, **running it as a slideshow allows access to the interactivity.**

### Step 1

Run the Route Map as a slideshow

### Step 2

Select the relevant topic. We're going to select **Indices** in this example

You'll see the topic sheet below

## Route Map topic sheets

### Step 3

Select **Unit 2 – Indices**

These **statements** can be cut and pasted to suit your own teaching preferences

You'll see the topics sheet below

Add your own **teacher notes** so that you can use the Route Maps as the basis for your scheme of work

Candidates should be able to:	Teachers own notes
<ul style="list-style-type: none"><li>&gt; identify multiples, factors and prime numbers from lists of numbers</li><li>&gt; write out lists of multiples and factors to identify common multiples or common factors of two or more integers</li><li>&gt; write a number as the product of its prime factors and use formal and informal methods for identifying highest common factors (HCF) and lowest common multiples (LCM); abbreviations will not be used in examinations</li><li>&gt; quote squares of numbers up to <math>15 \times 15</math> and the cubes of 1, 2, 3, 4, 5 and 10, also knowing the corresponding roots</li><li>&gt; recognise the notation <math>\sqrt{25}</math> and know that when a square root is asked for only the positive value will be required; candidates are expected to know that a square root can be negative</li><li>&gt; solve equations such as <math>x^2 = 25</math>, giving both the positive and negative roots</li><li>&gt; understand the notation and be able to work out the value of squares, cubes and powers of 10</li><li>&gt; use the index laws for multiplication and division of integer powers</li></ul>	

- You'll be directed through to the relevant topic page in *AQA All About Maths*
- More detailed instructions about using Route Maps, including how to adjust them if you're starting early in Year 9, are available on the website.

## Summary

Now you've seen the Route Maps, you can:

- **clearly** see our suggested way to teach the specifications
- **save the time and effort** of having to plan it out yourself
- **amend the calendar and teaching order of topics** to suit your own teaching preferences.

# Planning lessons

There are lots of resources available in *AQA All About Maths* to help make teaching the new specifications effective. The teaching resources available to assist you include:

- Assessment guidance
- Lesson plans and starters
- Problem sheets
- Homework sheets – for testing every topic
- Supplementary resources – Target boards, Activity sheets and more.

To help with the areas that students struggle most with we've:

- produced resources for the **most challenging areas** of the specifications first
- devised interesting and innovative ways to **deliver the topics**.

We'll show you how to find these teaching resources and how they can be quickly and easily stored and organised to suit your teaching needs.

We offer both Linear (students sit all exams at the end of the course) and Modular (exams are sat at different times during the course) specifications. Our resources cover both specifications.

## Finding teaching resources

We're going to select the Foundation Tier for this example, but the structure within both tiers is the same.

### Step 1

Select **Foundation Tier**

You'll see the links for the three units that make up the Foundation Tier

### Step 2

Select **Unit 1**

You'll see the screen on the next page.



## Teaching resources

### Step 3

Select Fractions

Notes on this web page:

- You'll see all the links for the topics that make up Unit 1 Foundation: Statistics and Number
- The topics are listed in the order set out in the specification. For a suggested teaching order see 'Planning the course' on page 5.

The screenshot shows the AQA All About Maths website. The main heading is 'Unit 1 Foundation: Statistics and Number'. The left-hand navigation menu includes 'Fractions', 'Decimals', 'Collecting Data', 'Percentages', 'Ratio & Proportion', 'Statistical Measures', 'Representing Data', 'Number Change', and 'Probability'. The 'Fractions' link is circled in red. The main content area provides an overview of the unit, including a list of topics: Data handling cycle, Data collection, Data presentation and analysis, Data interpretation, and Probability. It also lists number skills to be tested: Working with numbers and the number system, Fractions, decimals and percentages, Ratio and proportion, and The language of algebra. A 'View assessment guidance' link is visible in the right-hand sidebar.

### Step 4

Select View Assessment guidance for specification reference N1.3.

You'll see a new window opens (see next page)

Notes on this web page:

- You'll see three tabs called 'Teaching guidance', 'Teaching resources' and 'Exam resources'.
- The 'Teaching guidance' tab is open by default. You'll see it lists the specification references in the recommended teaching order, estimated teaching times and an overview of each.

You'll see a new window opens (see next page)

The screenshot shows the AQA All About Maths website for the 'Fractions (Foundation - Unit 1)' topic. The 'View assessment guidance' link in the left-hand navigation menu is circled in red. The main content area displays the 'Topic: Fractions' and 'Estimated teaching time: Foundation 3.5 hours - 4.5 hours'. There are three tabs: 'Teaching guidance', 'Teaching resources', and 'Exam resources'. The 'Teaching guidance' tab is active, showing a list of specification references (N1.3, N2.1, N2.5, N2.6, N2.7) with their descriptions and 'View assessment guidance' links. The 'View assessment guidance' link for N1.3 is circled in red.

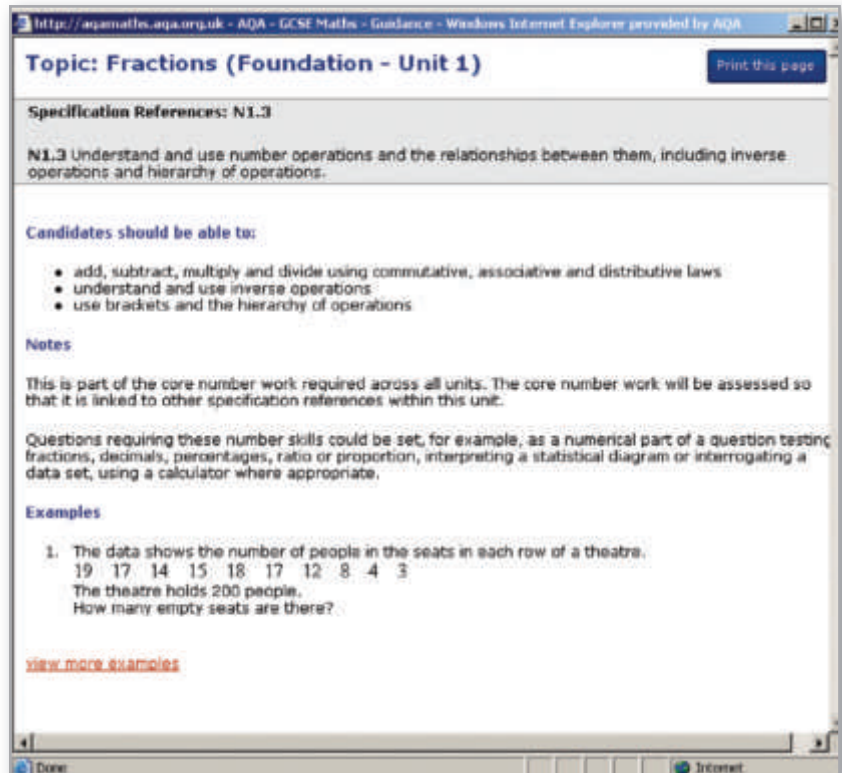


# Teaching resources

This screen shows the detailed assessment guidance for each topic.

### Notes on this web page:

- This window can be printed, or you can print the Assessment guidance for **all topics** using the Documents link, which is on the main left-hand navigation menu.



## Step 5

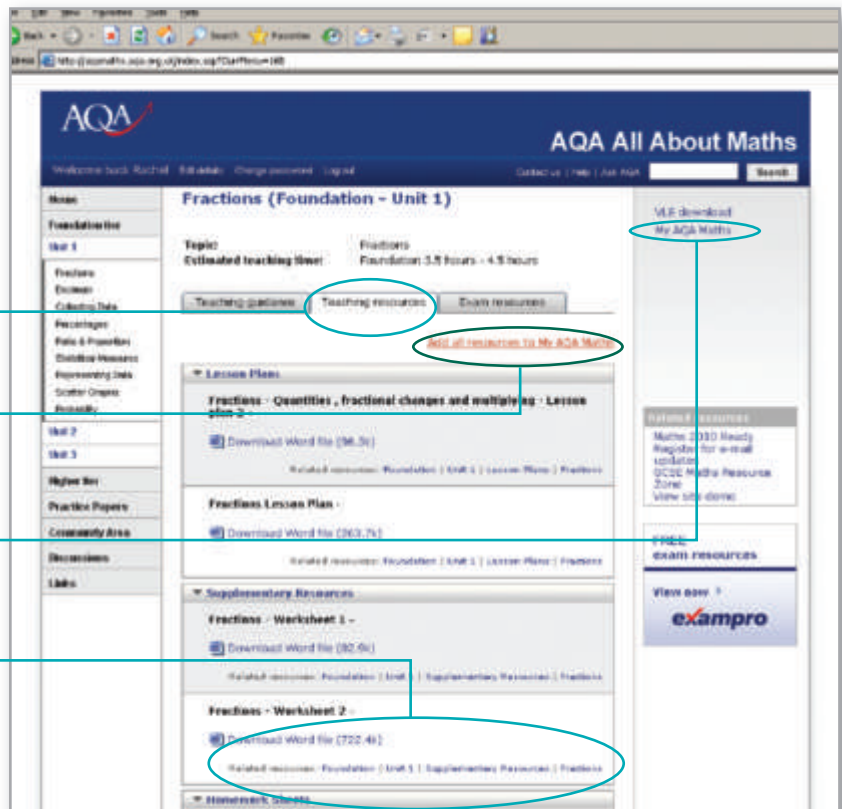
Select Teaching resources

Add all resources to My AQA Maths – see next page for details

Access to **My AQA Maths** folder – see next page for details

### Notes on this web page:

- You'll see 'Related resources' listed below each of the resources. By selecting these links, you'll see just those resources, so it's a quick and easy way to see resources of the same type.



## My AQA Maths

We're sure you'll be impressed by the collection of resources available to you in *AQA All About Maths*.

We realise that sometimes the wealth of resources available can make preparing for lessons a little bit daunting, so we've created **My AQA Maths** to help.

**My AQA Maths** is your personal filing system, where you can store and organise your own resources.

As you browse the resources, you'll be able to:

- **store all your favourite resources in one place** that's accessible wherever and whenever you log on
- **organise resources** to suit you, perhaps for a particular year group or week, or for your next term's complete scheme(s) of work
- **make your own useful notes**, perhaps to remind you how students responded to the lessons or to evaluate and improve a lesson for next time
- with one mouse-click, **place some or all of our resources in your folder**
- **add your own resources**, or upload your adapted versions of lessons.

### Using My AQA Maths

This example adds all the topic resources to your **My AQA Maths** folder. You can also add resources individually to your **My AQA Maths** folder by clicking the icon next to the resource you want to add.

#### Step 1

In **Teaching resources** select the red link 'Add all resources to **My AQA Maths**'

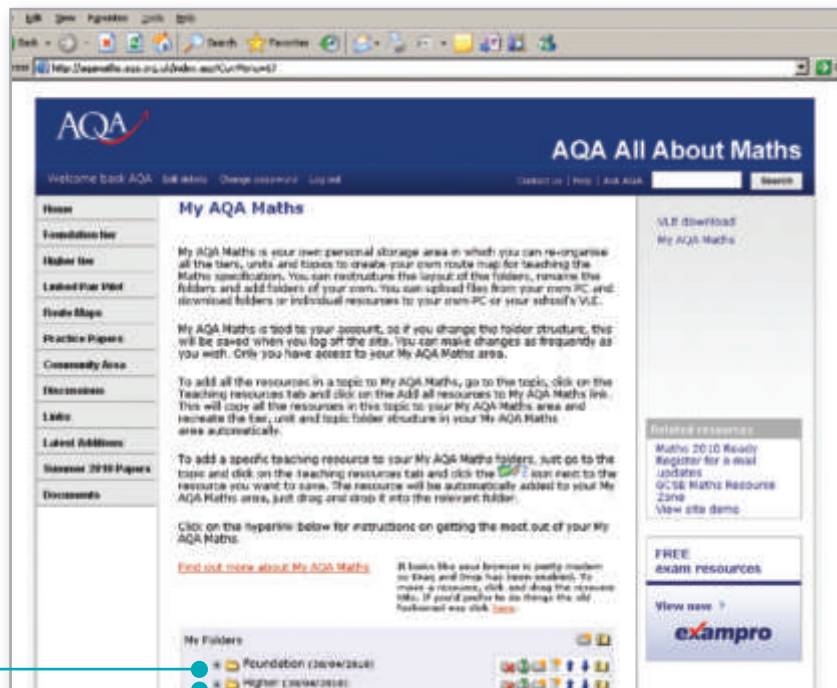
#### Step 2

Select the **My AQA Maths** link, at the top of the right-hand navigation column.

Refer to the screen shot at the bottom of the previous page if you need help finding these links.



## Using My AQA Maths folders



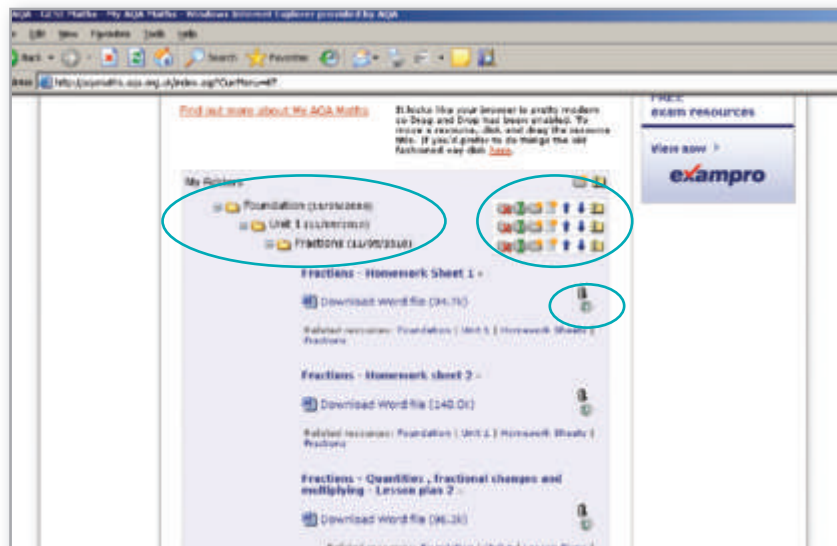
### Step 3

Select the '+ sign' next to the folder icons to expand them

#### Notes on this web page:

- In 'My Folders' you can see that a 'Foundations' folder has been created with the date it was created in brackets

Once you've expanded all the folders, you'll see the resources in the 'Fractions' topic of 'Unit 1' have been copied into the **My AQA Maths** folder.



## Summary

Now that you can find the teaching resources and **My AQA Maths**, it's easy to:

- save time and effort** preparing for lessons
- adapt our resources** to meet your needs
- save resources in your own folder** for easy access.

# Preparing for exams

To find practice exam questions in *AQA All About Maths*, you can use:

- **Exampro** to create your own papers OR
- the **Practice papers** link in the main menu for papers we've created for you.

ie you can decide when and how to use the questions to meet your teaching needs.

## Exampro



Exampro is an invaluable tool for generating exam papers. Here's how it can help:

- **Saves you time** – Exampro is so quick and easy to use. It's also been customised to link seamlessly with each topic
- **Easy search facility** – the ability to search by general topics, or by type of question, enables practice papers to be more focused

- **Everything in one place** – the software puts everything at your fingertips – questions, hand-picked by our senior examiners, are linked to the new GCSE specifications, mark schemes and examiners' reports
- **Like a real exam** – so your students get the best exam practice possible
- **You're in control** – you can prepare the perfect practice paper with the minimum of fuss. No more trawling through past papers and matching questions to specifications: we've done that for you. You can even make the mark scheme for your practice paper too!

We're continuing with the same example in Foundation Tier, Unit 1 and 'Fractions' topic'.

## Launching Exampro

### Step 1

Select the **Exam resources** tab

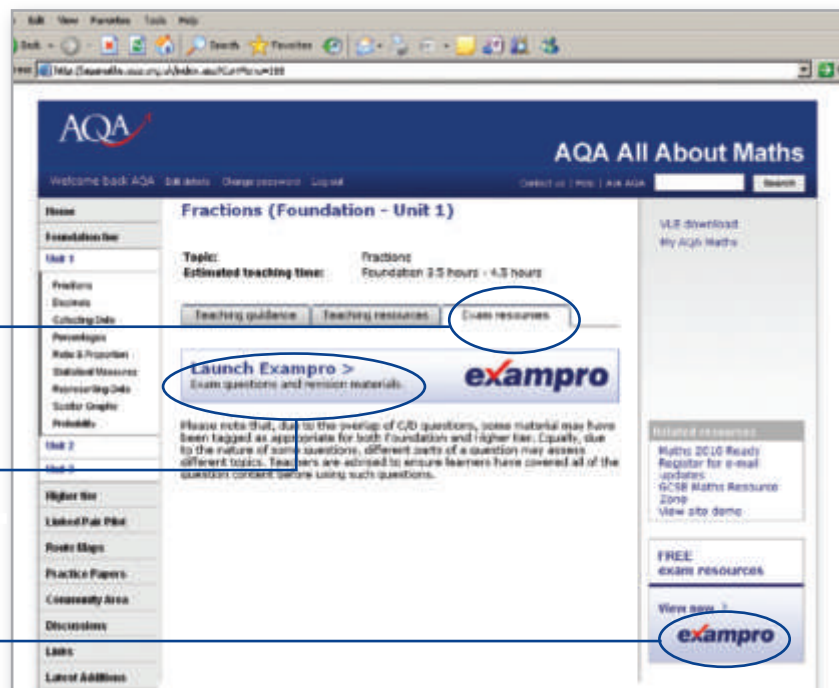
### Step 2

Select **Launch Exampro**

Exampro opens in a new window (see next page)

### Notes on this web page:

- You can open Exampro from here and you'll access the whole library of questions.



## Using Exampro

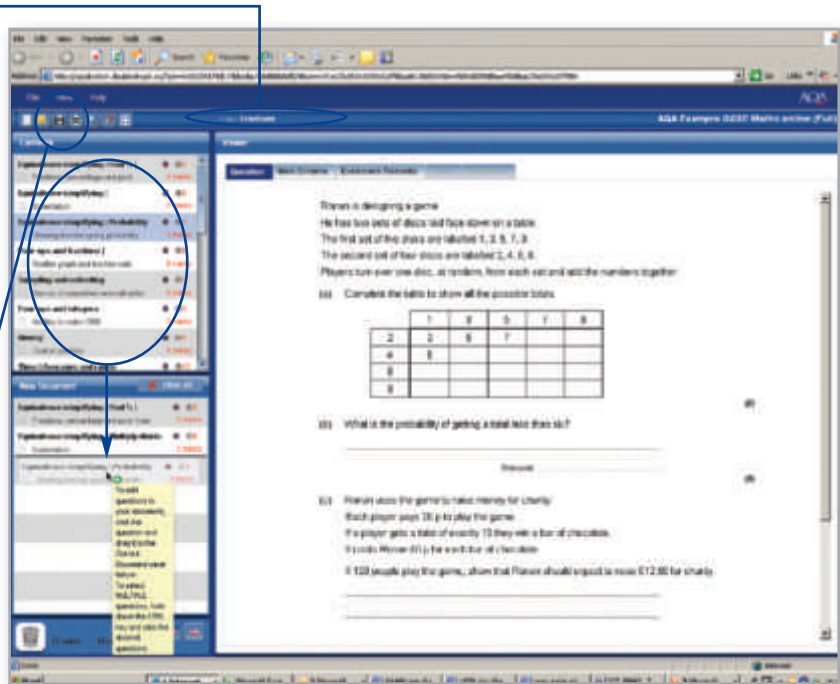
The **Filter** has been set to Fractions so you'll see just those questions

### Step 3

**Drag and drop the questions** into the 'new document' below. We've already moved some questions and are in the process of dropping another into the new document.

### Step 4

When you've added all the questions, select the **save** icon

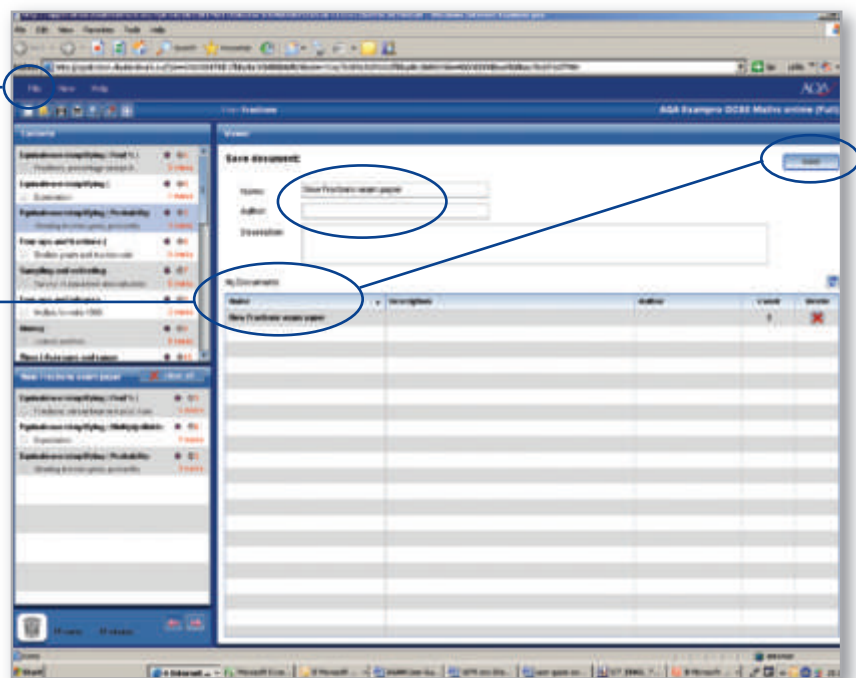


### Step 5

Name your document then select **save** and it'll be saved in the 'My Documents' library.

### Step 6

You can then **export** your exam papers to Word or as a PDF document through the 'File' menu.



## Using Exampro to search

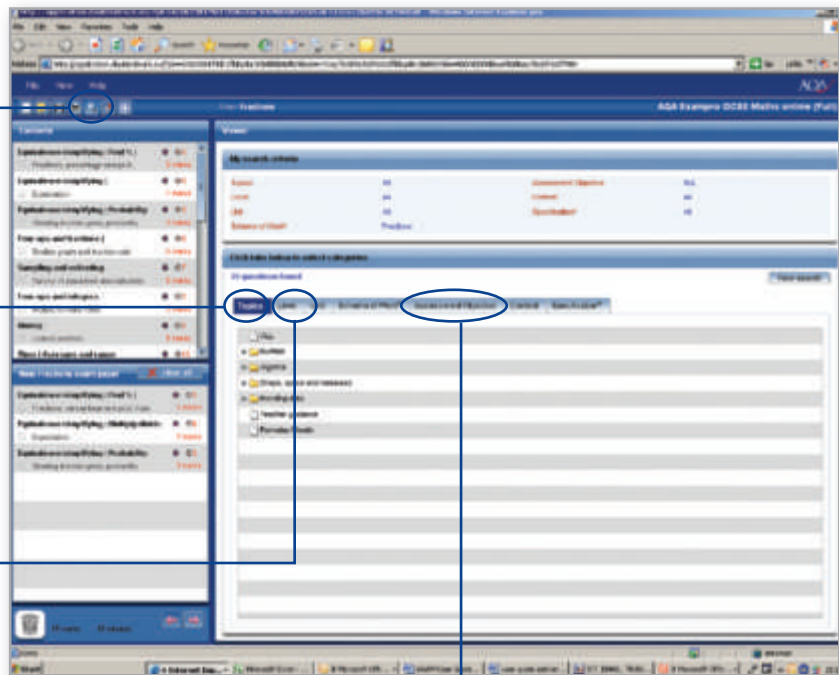
Another really useful feature is **search**

There's a number of different ways to filter the questions:

**Topics** – search for questions related to a topic of study identified in *AQA All About Maths*. Ideal when looking for questions relevant to the material you're teaching

**Level** – filter questions by Foundation or Higher Tier, or look at questions common to both

**Assessment objective** – a handy way of looking for more problem solving questions, or to see which assessment objective a question covers. Also allows you to look for functional questions, or questions that assess quality of written communication.



## Practice papers

Questions have been written by the senior examiners for the new specifications, and reflect the type of problem solving and functional questions that will be set in live papers.

Practice papers can be found using the link located on the main left-hand navigation menu. New papers will be added when they become available.

### Summary

Now you know where to find Exampro and the practice papers, you'll soon be **quickly and easily creating your own exam papers** so:

- your students are **better prepared** for exams
- you have **more time to spend teaching**.

# Community area

## Why not submit your own resources to *AQA All About Maths* to share with other maths teachers?

Whether it's resources you've found, a completely new resource you've produced, or a change to an existing one, if you submit it to the 'Community area' other teachers can benefit from your experience and success.

### Share your great resources

To share your resources, simply follow the steps on the 'Submit a resource' page.

# Discussions

## Our *AQA All About Maths* online forum is up and running!

Help spread best teaching practices by sharing your knowledge, ideas and problems with other teaching professionals.

We regularly review comments on the forums, so when you post a question we'll provide a quick and accurate reply.

### Contribute to the discussion

We'd love to hear from you and we're sure other teachers would too, so why not share your views on the latest hot topic of conversation in the forums?



# We're here to help

Now you've seen what *AQA All About Maths* has to offer and you know how to find what you need, we hope you're:

- better prepared than ever to teach our new GCSE Maths specifications
- confident that you have the necessary tools and resources to inspire and engage your students.

We also provide a wide range of additional support and services for GCSE Maths.

## Web resources

<b>AQA website</b>	<b><a href="http://aqa.org.uk">aqa.org.uk</a></b>
<b>Maths Resource Zone</b>	<b><a href="http://aqa.org.uk/mathszone">aqa.org.uk/mathszone</a></b> for specifications, specimen assessment materials and the latest updates and information
<b><i>AQA All About Maths</i></b>	<b><a href="http://aqamaths.aqa.org.uk">aqamaths.aqa.org.uk</a></b> Log on queries e-mail: <a href="mailto:allaboutmaths@teachit.co.uk">allaboutmaths@teachit.co.uk</a>
<b>Ask AQA</b>	24-hour online bank of questions and answers at <b><a href="http://aqa.org.uk/askaqa">aqa.org.uk/askaqa</a></b>
<b>e-AQA</b>	past question papers, mark schemes and examiners' reports
<b>Regular e-mail updates</b>	to keep you up to date with developments, including new resources and training
<b>Exampro</b>	free, online tool for creating exam papers. Access through <i>AQA All About Maths</i>
<b>Enhanced Results Analysis</b>	free, online analysis of your results <b><a href="http://aqa.org.uk/era">aqa.org.uk/era</a></b>

## Contact our maths experts

<b>Regional Maths Advisors</b>	free advice from your own advisor
<b>Maths subject department</b>	answers to subject-related queries by phone: 0161 957 3852 e-mail: <a href="mailto:mathematicsgcse@aca.org.uk">mathematicsgcse@aca.org.uk</a>

## Other resources and support

<b>Continuing Professional Development (CPD) programme</b>	<b><a href="http://events.aqa.org.uk/ebooking">events.aqa.org.uk/ebooking</a></b>
<b>Teacher support</b>	meetings to review exam performance
<b>Nelson Thornes</b>	student textbooks, teacher books, revision guides, online resources. e-mail: <a href="mailto:cservices@nelsonthornes.com">cservices@nelsonthornes.com</a> phone: 01242 267287 web: <a href="http://nelsonthornes.com/aqa2010">nelsonthornes.com/aqa2010</a>

If you've got any questions about our GCSE Maths specifications, we're happy to help. Simply phone us on 0161 957 3852 or contact us online.

**[aqa.org.uk](http://aqa.org.uk)**

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