Successful Revision in Mathematics
### AQA Specification at a glance (8300)

<table>
<thead>
<tr>
<th>Thursday 24 May</th>
<th>Thursday 7 June</th>
<th>Tuesday 12 June</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Paper 1: non-calculator</strong>&lt;br&gt;Content&lt;br&gt;• Content from any part of the specification may be assessed</td>
<td><strong>Paper 2: calculator</strong>&lt;br&gt;Content&lt;br&gt;• Content from any part of the specification may be assessed</td>
<td><strong>Paper 3: calculator</strong>&lt;br&gt;Content&lt;br&gt;• Content from any part of the specification may be assessed</td>
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<tr>
<td><strong>Assessment</strong>&lt;br&gt;• 1 hour 30 minutes&lt;br&gt;• written exam&lt;br&gt;• 80 marks&lt;br&gt;• $33\frac{1}{3}$ of GCSE</td>
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- Students will be required to answer all questions on all papers
- The assessment structure will be the same for both foundation and higher tiers
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“Develop all learners to achieve their full potential” “Create a culture of aspiration”

The harder I practice, the luckier I get.

Gary Player

Daily Quotes // taligroup.net
Don’t revise maths....

Practise maths.
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“Develop all learners to achieve their full potential” “Create a culture of aspiration”
Complete a double page of your revision guide 3 times a week.
### 5-a-day

#### 1st January

<table>
<thead>
<tr>
<th>Name:</th>
<th>5-a-day</th>
<th>Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work out the volume of the cube. State the units of your answer.</td>
<td></td>
</tr>
<tr>
<td>![Cube Diagram]</td>
<td>![Graph Diagram]</td>
<td>![Equations]</td>
</tr>
</tbody>
</table>

#### What type of correlation is shown?

| ![Equations] |

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Work through 5-a-day on [Corbett Maths](#).
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hegartymaths
The student dashboard.

We always praise students for how much effort and hard work they put in!

This donut summarises school maths (or HegartyMaths!) so allows students to visualise their progress.
Why would a student log in?

To complete homework or tasks set by the teacher

To focus on deliberate practice

To work independently for revision purposes

Students using the site to search for topics they want help with

To complete homework or tasks set by the teacher
Where do the 619 skills come from?

HegartyMaths is first broken down into the 6 strands of maths (in the new 1-9).

Behind each strand sits a list of topics.

Each topic contains a list of unique skills. These are the 619!
Each one of the 619 skills on HegartyMaths is made up of 3 unique components!

The video. Recorded by Colin Hegarty, each video follows the same pattern:
- 10 mins long
- Start with prior knowledge
- Followed by a carefully scaffolded sequence of minimally different example questions

The Building blocks. These are a unique list of prerequisite knowledge skills. The student can review first if they think a skill done in the past badly may prevent them

The assessment. A unique aspect of HegartyMaths is that the video and quiz work in perfect synergy with each other. Students can always find a similar example in the video!
The recommended route.

Check out the building blocks

Ensures the student has the required prerequisite knowledge skills in place in order to get 100% on this homework

Watch video in full

Whilst watching the video, it’s essential that the student makes hand written notes in a HegartyMaths exercise book/workbook to really keep them engaged throughout and for revision purposes later!

Complete quiz

Get 100%! We’ll show you how next...
The quiz.

Up to 50 minimally different Q’s for each scaffold. Set a task to a class and every student will get different Q’s!

Top Tip! We think it’s really important for students to write the questions and working out into an exercise book and mark as they go along.

Ability to watch video (as a pop-up) from this page!

Interactive keyboard. This is reactive and works perfectly on tablets, smart phones etc. It allows you to type real maths!
The quiz.

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Interactive keyboard. This is reactive and works perfectly on tablets, smart phones etc. It allows you to type real maths!
Right or wrong?

If a student has tried hard themselves but are still struggling, they can type a comment to their teacher.

We always give students 2 attempts to get the answer correct before marking as incorrect.

We populate the correct answer so the student can mark their book as they go.

If a student has tried hard themselves but are still struggling, they can type a comment to their teacher.
Fix Up 5 – ‘The most perfect example of gap analysis’

What is Fix Up 5 all about?

Scientific research shows the way to improve the fastest is to practise things you couldn't do in the past - this is called deliberate practice.

Fix Up 5 will give you 5 questions you got wrong before to repeat and improve on.

Great mathematicians learn from their mistakes.

“I fear not the man who has practiced 10,000 kicks once, but I fear the man who has practiced one kick 10,000 times”
- Bruce Lee
Fix up 5 focuses on deliberate practice. Deliberate practice is all about focusing on the skills that you’re bad at, rather than the ones which you find the easiest.

Behind the scenes, we record every single question that a student ever gets incorrect!

From the data we have, we’re going to populate a student with 5 random questions (not linked by a strand/topic/skill) but ones that she previously got incorrect!
Fix Up 5 – the questions.

This is the exact question this student previously got incorrect.

As with every question on the site, the student has the ability to link back to the original skill video.
Time for a bit of maths.....

Write down the formula for:

1) The area of a circle

2) The area of a triangle

3) The area of a trapezium

4) The circumference of a circle

5) The area of a parallelogram
Write down the formula for:

1) The area of a circle \( A = \pi r^2 \)

2) The area of a triangle \( A = \frac{1}{2} bh \)

3) The area of a trapezium \( A = \frac{1}{2} (a + b)h \)

4) The circumference of a circle \( A = \pi d \)

5) The area of a parallelogram \( A = bh \)
Area of Circle

Area = $\pi r^2$

Area of parallelogram = Base $\times$ Height

Circumference

$C = \pi d$

Trapezium

Area = $\frac{1}{2} h(a + b)$

Trapezium

Height

Area = $\frac{1}{2} \times$ base $\times$ perpendicular height

PARALLELOGRAM

Height

Base

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**Area of Circle**

\[ \text{Area} = \pi r^2 \]

**Trapezium**

\[ A = \frac{1}{2} h(a + b) \]

**Height**

\[ \text{Area} = \frac{1}{2} \times \text{base} \times \text{perpendicular height} \]

**Circumference**

\[ C = \pi d \]
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Area of Circle

\[ \text{Area} = \pi r^2 \]

Trapezium

\[ A = \frac{1}{2} h(a + b) \]

Circumference

\[ C = \pi d \]

Area of parallelogram = Base \( \times \) Height
Area of Circle

Area = \pi r^2

Area = \frac{1}{2} \times \text{base} \times \text{perpendicular height}

Area of parallelogram = Base \times Height

Circumference

C = \pi d
Area of trapezium \( A = \frac{1}{2} h(a+b) \)

Circumference \( C = \pi d \)

Area of parallelogram \( = \text{Base} \times \text{Height} \)

Area of triangle \( = \frac{1}{2} \times \text{base} \times \text{perpendicular height} \)
### Area of Circle

Area of a circle is given by the formula:

\[ \text{Area} = \pi r^2 \]

### Trapezium

The area of a trapezium is given by the formula:

\[ A = \frac{1}{2} h (a + b) \]

### Triangle

Area of a triangle is given by the formula:

\[ \text{Area} = \frac{1}{2} \times \text{base} \times \text{perpendicular height} \]

### Parallelogram

Area of a parallelogram is given by the formula:

\[ \text{Area} = \text{base} \times \text{height} \]
Area of a Trapezium:

\[ A = \frac{1}{2} h(a + b) \]

Area of a Triangle:

\[ A = \frac{1}{2} \times \text{base} \times \text{perpendicular height} \]

Circumference of a Circle:

\[ C = \pi d \]
Write down the formula for:

1) The area of a circle
2) The area of a triangle
3) The area of a trapezium
4) The circumference of a circle
5) The area of a parallelogram
Revision techniques to support memory recall

Revision cards or Quizlet for those who prefer a bit of technology

Mnemonics to help remember key facts. E.g Apple Pies Are Square

Regular testing of knowledge
Regular exam practice

- Students should be completing one past paper a week at home.

- You will be given a pack of 3 additional exam papers with mark schemes. If you or your child isn’t sure what marks they have achieved on a question they should bring the booklet to their maths teacher.
Do not worry about your difficulties in Mathematics. I can assure you mine are still greater.

Albert Einstein

German Theoretical-Physicist
(1879-1955)