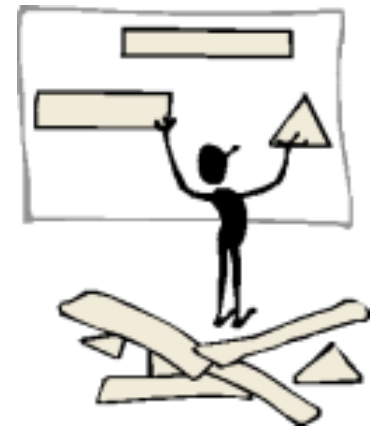
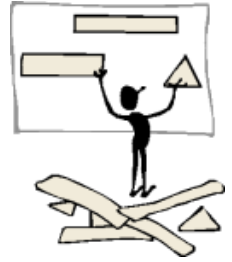


Home Support for GCSE Mathematics..



Some Context..



- Three papers each 1hr 30 mins long
- One non – calculator paper & two calculator papers (Edexcel)
 - Two tiers – Foundation : Grades 1 - 5
Higher : Grades 4 – 9
 - Roughly 25% cross over between tiers
 - Half the content of a higher paper is Grade 7-9
- Increased focus on problem solving & application with questions less directed

In lessons...



- 7 hours of maths a fortnight
- Remaining skills taught & tested
- Review & recall from topics taught last year
 - Extended learning

Narrow topic
focus

Vs

Mixed topics

Perfect
required
processes

Practise with
contextual
exam questions

Learn required
formulae

Past Papers

What to revise...



- Encourage pupils to think carefully about what topics they are targeting
- Focus on uncertainties which arise in lessons, homework tasks and assessments to base independent work on
 - Use assessment analysis sheets to target areas which require extra attention
- Consolidate 'old' topics which haven't been revisited for a while

Practise...



- Secure the process/ method required
- ↓
- If unsure you walkthrough videos/ explanations to help
- ↓
- Once confident – apply to problem solving/ worded questions
- ↓
- Mark effectively using solutions provided



Just Maths..

- www.justmaths.co.uk/online
 - Log In: RedhillStudent
 - Password: Redhill
- Videos/ Worksheets/ Solutions





Corbett Maths..

- www.corbettmaths.com
- Mixed Practise/ Videos/ Exam Style Questions/
Solutions





Hegarty Maths..

- www.hegartymaths.com
- Detailed videos with support and challenge
 - Online quizzes
 - Prior knowledge links
 - Fix Up 5's
 - Grade Focus



Our school's homework routines

- 1 Your child will be set one homework a fortnight by their teacher.
- 2 Your child's teacher will choose the lesson they want them to learn and will pick it so that they are revising an important maths revision topic. As such, they will have already probably covered it in class but might have forgotten. Their homework is to revise as, to be a great learner, it's important that your child revises as a habit and not just before tests!
- 3 Your child need to spend **between 30 minutes and 1 hour** on their homework as this shows effort and commitment and will ensure that they do quality homework.
- 4 Your child will always be expected to
 - i) watch the video + take notes;
 - ii) write down your quiz workings neatly;
 - iii) mark their own work, make corrections and write down their score at the end.
- 5 Homework will be checked by your child's teacher in class once a fortnight. Your child will be expected to bring their homework book to class for their teacher to view against the criteria 4 i), ii) and iii) above.

What does a homework on HegartyMaths look like?

hegartymaths

Perimeter (4)

Example
Work out the **perimeter** of this shape.

$2 \times 12 = 24m$

$8 + 5 + 5 + 8 = 26m$

8m
5m
12m
5m

Do quiz

551 - Perimeter (4)

Learn how to find the perimeter of a compound shape.

Video watched 0.00x

Your score **New lesson** HegartyMaths avg 60%

Step 1:

Video where Mr. Hegarty teaches your child everything they need to know about that topic & goes through all the examples that will be in the quiz.

Step 2:

Quiz that will allow your child to practise all the examples in the video for themselves and know whether they understood what was in the video.

Step 1:

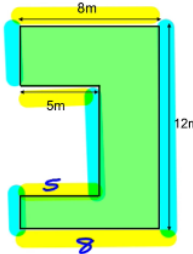
Your child needs to watch the video, take notes of all modelled examples.


Perimeter (4)

Example
Work out the perimeter of this shape.

$2 \times 12 = 24m$

$8 + 5 + 5 + 8 = 26m$





Your child will turn each video into fantastic notes in their HegartyMaths homework books.

VIDEO NOTES
HegartyMaths - Perimeter (4) 14th July 2016

Example 1
Perimeter = $7+7+7+7$
 $= 4 \times 7$
 $= 28mm$

Example 2
Perimeter = $4+9+4+9$
 $= 18+18$
 $= 36mm$

Perimeter = $2 \times 9 + 2 \times 4$
 $= 18 + 8$
 $= 26mm$

Perimeter = $2 \times (4+9)$
 $= 2 \times 13$
 $= 26mm$

Example 3
Perimeter = 6×9
 $= 54mm$

Example 4
Perimeter = 4×5
 $= 20cm$

Example 5
Perimeter = $3 \times 4 + 3 \times (4+5)$
 $= 12 + 27$
 $= 39mm$

Key Words:
• Length
• Units
• Distance

Regular means all sides are the same length.

Always draw a sketch from the information given.

Doesn't matter which method you use, they all work!

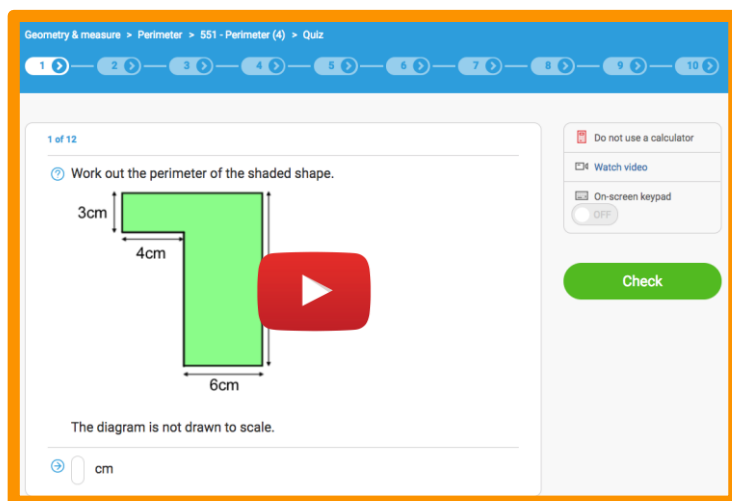
Here is an example of a great homework!

Your child will **always** produce a set of well-written notes of all the modelled examples in the video as we want your child to be an expert note-takers and to revise before they try the quiz.

If your child knows the material, they should still take the notes as it's a good habit and ensure they are producing revision notes every week.

Step 2:

Your child then needs to assess their learning from the video in a quiz.



Geometry & measure > Perimeter > 551 - Perimeter (4) > Quiz

1 of 12

Work out the perimeter of the shaded shape.

3cm
4cm
6cm

The diagram is not drawn to scale.

cm

Do not use a calculator

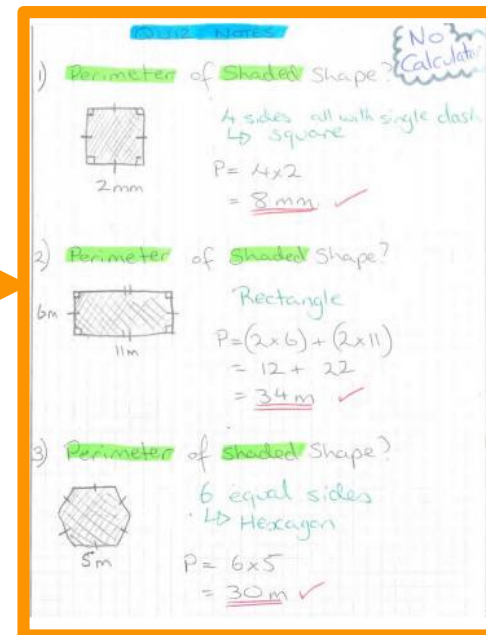
Watch video

On-screen keypad OFF

Check

Your child needs to:

- 1) Write down every Q
- 2) Always show all their workings
- 3) Always mark and self-correct their work



1) Perimeter of shaded shape? *No Calculator*

4 sides all with single dash
↳ Square

$P = 4 \times 2$
 $= 8 \text{ mm}$ ✓

2) Perimeter of shaded shape?

Rectangle

$P = (2 \times 6) + (2 \times 11)$
 $= 12 + 22$
 $= 34 \text{ m}$ ✓

3) Perimeter of shaded shape?

6 equal sides
↳ Hexagon

$P = 6 \times 5$
 $= 30 \text{ m}$ ✓

Your child will always show their workings and mark all questions they ever do.

If your child can do the question in their head they still need to show their workings as that is part of being a great mathematician.

Student checklist for great weekly homework

	Action	✓ or ✗
1	I always write the date, title, clip number and H/W for all my tasks.	
2	I always watch the video before attempting the questions.	
3	I always take full notes of all the examples modelled in the video.	
4	I copy every question that I attempt in my book.	
5	I show all my workings for every question in the quiz that I do.	
6	I try to model my work the way I was shown in the video by Mr Hegarty.	
7	I use a pencil and ruler for all diagrams.	
8	I mark my work correct/incorrect as I go.	
9	I write down corrections when HegartyMaths tells me the correct answer.	
10	I write down my score at the end of quiz .	

What to do if your child is stuck on their homework?

The screenshot shows the HegartyMaths website interface. At the top, there is a video player for lesson 547, 'Area of a sector (2)'. The video player has a play button and a progress bar. To the right of the video player, there is a 'Continue quiz' button. Below the video player, there is a 'Building blocks' section. This section contains three lesson cards. The first card is for lesson 546, 'Area of a sector (1)', which has a score of 10%. The second card is for lesson 557, 'Triangles (1)', which has a score of 100%. The third card is for lesson 56, 'Round decimal numbers', which has a score of 92%. Red arrows point from the text boxes on the right to the video player and the 546 lesson card.

1) Watch the **video again** really carefully ensuring all examples are copied and see if hearing and writing it down a second time helps.

2) Look at your **building blocks**. These are the lessons that will help you with your current homework. If these are not at 100% or less than the HegartyMaths avg. then you should redo those them as it will help on your current work.

In the picture, the student will struggle with homework 547 as they have only 10% on lesson 546.

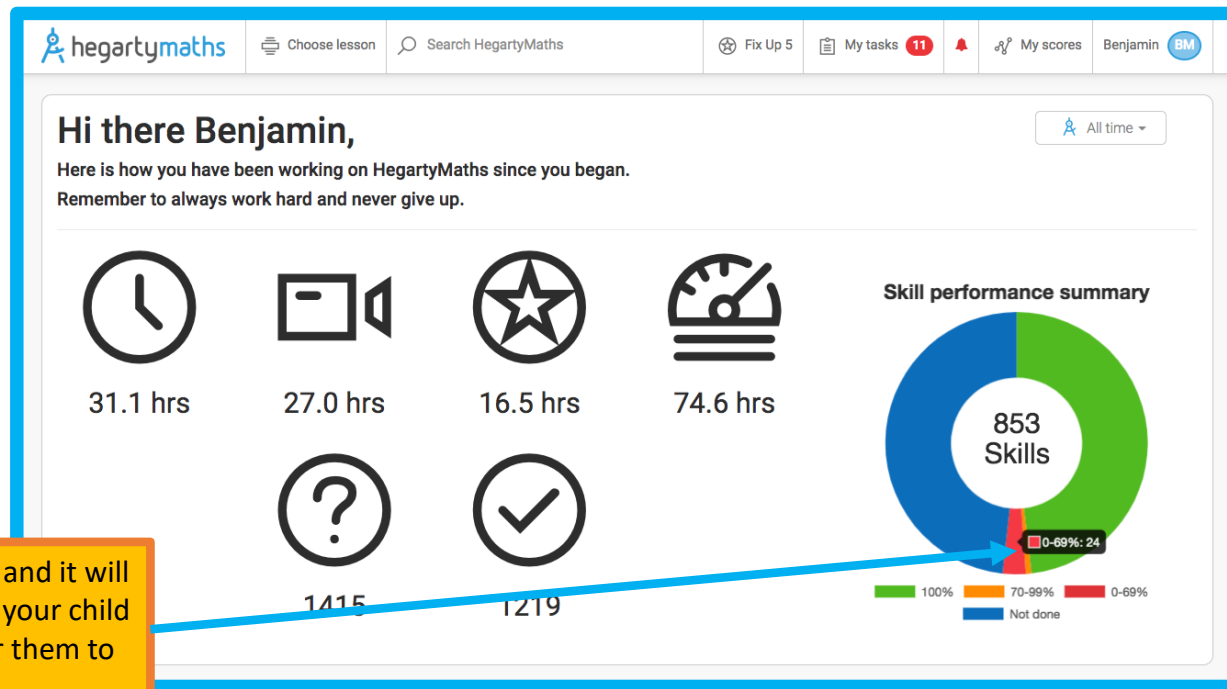
What if your child has completed all homework – what else could they do?

5 things you should do when you want to do extra work

	Action	✓ or ✗
1	I go back to my donut and pick lessons that are red (<70%) to redo them to make them amber (>70%) or green (100%).	
2	I go back to my donut and pick lessons that are amber (>70%) to redo them to make them green (100%).	
3	When working on lessons that are red or amber and I cannot make them 100% , I rewatch the video and look at the building blocks which may help me.	
4	I complete a Fix-Up-5 where HegartyMaths gives me 5 practice questions on parts of maths that I might be weak on.	
5	If my teacher has given me a revision list of clips on HegartyMaths, then pick a topic on that list and complete a homework the normal way myself.	

What if your child has completed all homework – what else could they do?

1) Use their donut to improve their weak areas: Your child can click the red section to find the quizzes they need to improve (**quizzes under 70%**) and redo them until they are amber (**quizzes over 70%**) or green (**quizzes at 100%**). Once they have made everything green or amber go back over the amber and try to get them to green.



Click the red section and it will open up any lessons your child is **under 70%** on for them to redo.

What if your child has completed all homework – what else could they do?

2) Fix up 5: HegartyMaths remembers every mistake your child has ever made and generates a quiz with 5 questions from different parts of maths that they are weak on so they can re-do them with the video and **Fix Up!**

The screenshot displays the 'Fix Up 5' interface on the HegartyMaths website. The top navigation bar includes the logo, 'Choose lesson', a search bar, and a highlighted 'Fix Up 5' button. The main content area features a table of 11 'Fix Up 5' questions, a circular progress indicator showing 13 questions fixed up, and a green 'Start' button. Below the table, there are sections for 'My current streak' (1) and 'My best streak' (3). The page is labeled 'Page 1 of 25'.

Fix Up 5 no.	Score	⌚	Date completed
244	2/5	1min	19:11 Fri 7th Sep 18
243	1/5	< 1 min	17:51 Fri 7th Sep 18
242	1/5	1min	15:49 Fri 7th Sep 18
241	3/5	4mins	11:46 Fri 7th Sep 18
240	1/5	1min	15:57 Thu 6th Sep 18
239	2/5	5mins	17:05 Wed 5th Sep 18
238	1/5	2mins	17:51 Tue 4th Sep 18
237	0/5	< 1 min	16:48 Tue 4th Sep 18
236	2/5	3mins	16:48 Tue 4th Sep 18
235	0/5	1min	14:23 Mon 3rd Sep 18

13 Questions fixed up this year in 0.3hrs

Start

My current streak: 1

My best streak: 3

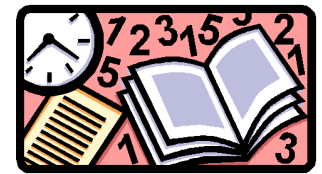
Page 1 of 25

8 things parents could do at home to help their child...

	Action	✓ or ✗
1	<p>Each week ask about your child's homework</p> <p>Ask your child what day the homework was set, when it must be handed in, what clip number and topic it is and when your child plans to complete the homework. Try to encourage your child to complete the homework well before the due date.</p>	
2	<p>Provide your child a good place to work</p> <p>Provide your child a quiet but supervised place to work. As the homework is online, it's good to be in the room to ensure your child is not getting distracted by other online activities. Furthermore, as it's a written homework, your child will need a desk, table or flat surface to copy their notes. If you don't have a suitable place at home to work or weak wifi, please encourage your child to attend their school's homework club.</p>	
3	<p>Get your child the correct equipment</p> <p>Your child will need a black/blue pen for all working, a pink highlighter for marking all wrong questions, a green highlighter for marking all correct questions, a red pen for writing corrections, a pencil and ruler for drawing all diagrams. Many lessons also require a scientific calculator and geometry set.</p>	
4	<p>Encourage your child to work in the right way</p> <p>Please always check your child has carried out their homework following the three requirements below which will have been modelled and encouraged by their teacher:</p> <ul style="list-style-type: none"> i) Always watch the video and take notes of all modelled examples provided; ii) Always write each Q down and show all their workings always; iii) Always mark each question, make corrections and write their score at the end. 	

8 things parents could do at home to help their child...

5	Sign-off their homework each week Each week ensure you sign-off your child's maths homework to say you have viewed it and believe they spent 30 mins to 1 hour on it and they have completed the 3 key expectations above.	
6	Encourage your child not to give up if they are making mistakes If your child is making mistakes, tell them that is ok and normal. As long as your child is working in the correct way (watching the video, taking notes, writing their workings and self-correcting) then praise them for their hard work and application. Try not to focus on their score as this can demotivate them. If you praise their effort and tell them they will eventually improve if they keep working in this way they will be happy and want to do their weekly homework.	
7	Reassure your child if they are not understanding If your child completely does not understand the video, watch it with them and try to help them understand. Also look below the video to their building blocks. Redoing these lessons will help your child plug any gaps in their prior learning needed for the current homework.	
8	Help them do extra work or get ahead Before learning new topics, always encourage your child to do two things: i) Fix lessons marked in their donut as red (under 70%) or amber (between 70 and 100%) and try to make them green (100%) by redoing them. ii) Complete a Fix-Up-5 . HegartyMaths will remember every mistake your child has ever made and gives them 5 practice questions on their weaknesses with the help video. This will allow your child to improve quickly. Once the two above are done, then you can consider completing extra new lessons. Ask your child's teacher for the best extra clips to do.	



Revision Hit List...

- Hegarty Maths
- Corbett Maths
- Just Maths Online
 - Maths Genie
- Just Maths Exam Questions by Tier
 - MyMaths
- BBC Bitesize – Edexcel

Independent work in Mathematics

Name	What?	Where?
Hegarty Maths	Video explanations Online Quizzes Fix Up 5's Grade focuses	https://hegartymaths.com
Corbett Maths	5 a Day Mixes Video explanations Practise exam style questions Solutions	https://corbettmaths.com
Just Maths	Video explanations Practise exam style questions Solutions	www.justmaths.co.uk/online Login: RedhillStudent Password: Redhill
Maths Genie	Exam questions & solutions Past papers	http://www.mathsgenie.co.uk/gcse.html
MyMaths	Quick marking tasks Online Grade Booster Packs	Mymaths.co.uk Login: redhillschool Password: square
BBC Bitesize	Self marking tasks/ worked examples	https://www.bbc.co.uk/education/subjects/z38pycw (choose Edexcel)