GCSE Maths Workshop

Objective:

To discuss effective ways to revise for GCSE Maths and the support that is available during Year 11.

Exam Dates

21st May – Paper 1 (Non-Calc)
6th June – Paper 2 (Calc)
11th June – Paper 3 (Calc)

Each paper is in the morning
Each paper is 1.5 hours long
Each paper is worth a total of 80 marks

21st May – Paper 1

222 days
about 25 school weeks
about 60 maths lessons
about 75 hours
about 3 days

SUCCESS

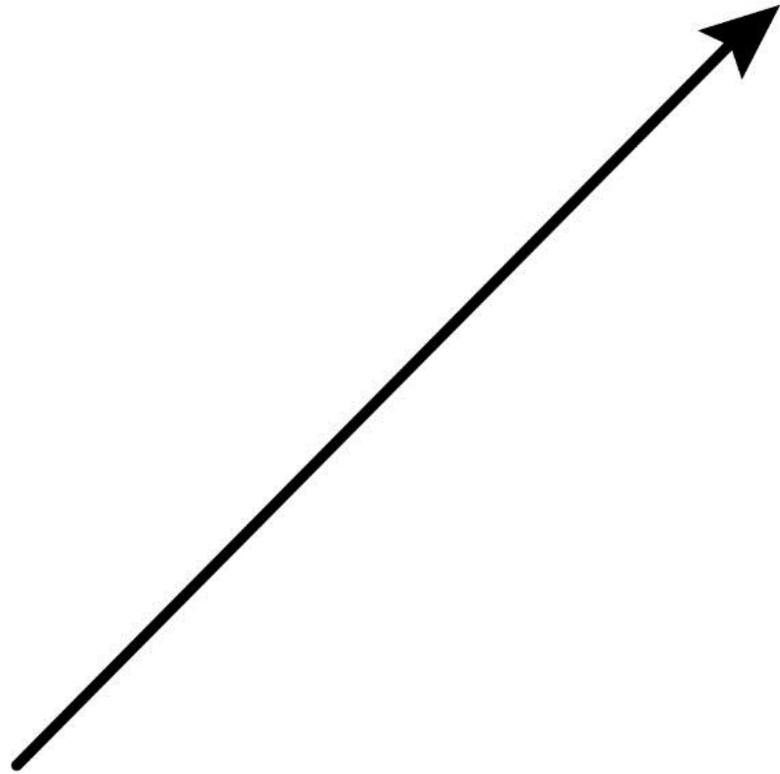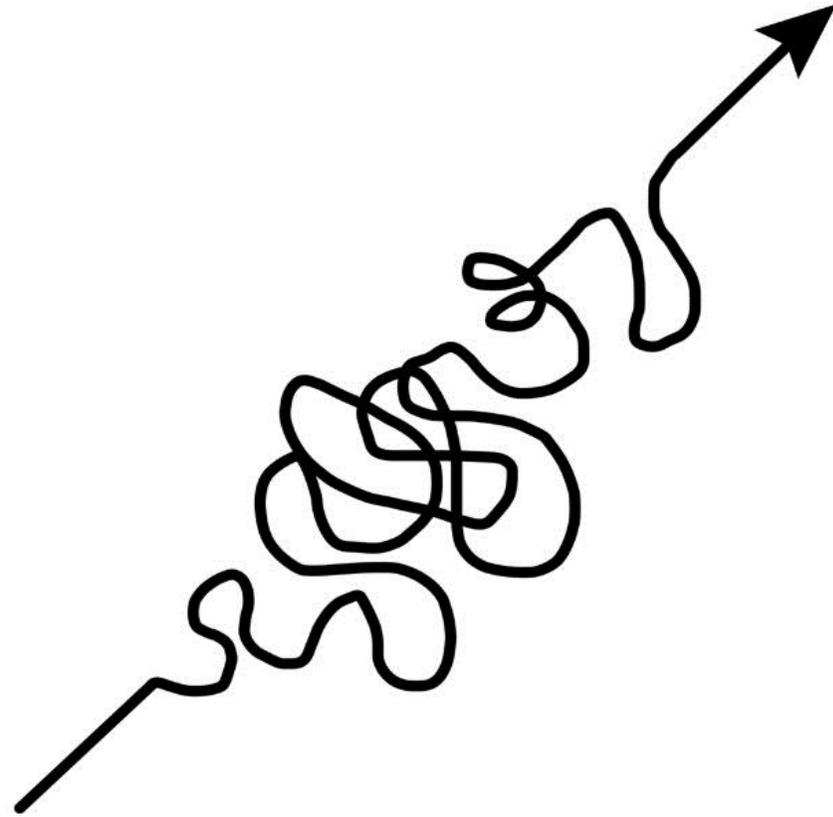**SUCCESS**

what people think
it looks like

what it really
looks like

Revision Strategies and pitfalls

- You get better at maths by <u>doing</u> maths

- Avoid distractions (phones/internet)

- Past Papers – don't just answer the easy questions!

Revision Strategies and pitfalls

- Beware of procrastination/low impact revision strategies e.g.

    Posters/Mind maps/Flash cards

    Reading revision guides

    Re-writing examples

    Choosing to revise topics you can already do

- Revise in short bursts

    2 x 20 minute sessions with a 20 minute (active) break in the middle is proven to be more effective than a 1 x hour session

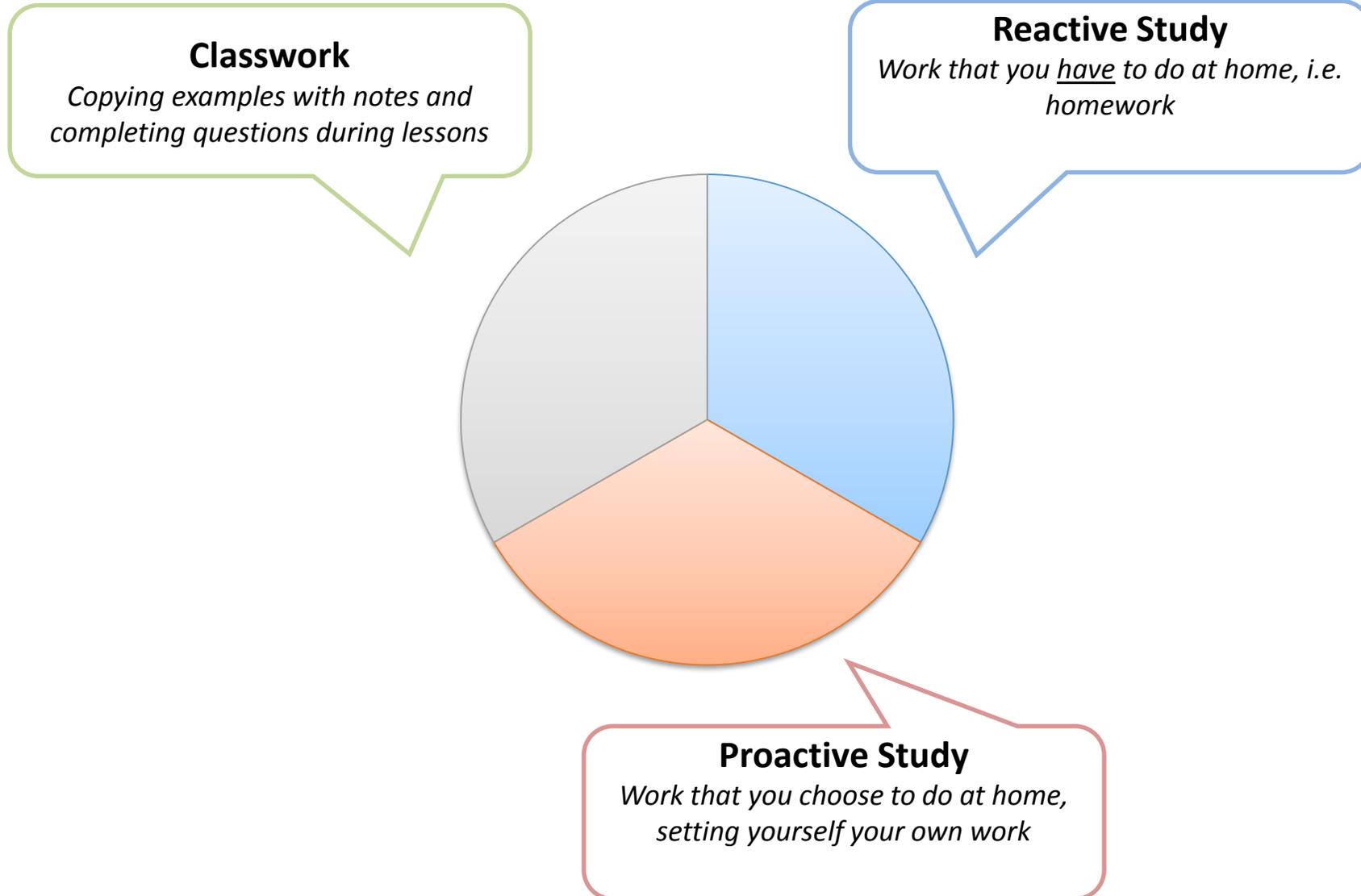- Set goals, have a plan – what do you want to achieve?

Revision Strategies and pitfalls

- Should you revise 3 easier topics or 1 harder topic?

- Vary your revision

- Striking the right balance (continue with your hobbies)

- Rewards

Mind Map

Theorem of Pythagoras

$$a^2 = b^2 + c^2$$

Congruent Triangles
1. Side, side, side (SSS)
2. Side, angle, side (SAS)
3. angle, side, angle (ASA)
4. Right angle, hypotenuse, side (RHS)

Lines
* Parallel Lines parallel line, never meet.
* Perpendicular Lines cross at right angles,, MN is perpendicular to PQ
* Line segment

Special Angles
* one complete turn or 360°
* Right angle or 90°
* Straight angle or 180°
* acute angle less than 90°
* obtuce angle - between 90° and 180°

The angle in a semi-circle is a right angle

Geometry

Angles
a = B vertically opposite angles are equal
* x + y + z = 180° angles on a straight line add to 180°
a + b + c + d = 360° angles at a point add to 360°

Area
* area = base × height
* area = $\frac{1}{2}$ × base × height

Special 4 Sided Figures
SQUARE
* 4 equal sides & angles.
Rhombos
* opposite angles equal
* all sides equal
Rectangle
* opposite sides are equal & parallel
* 4 right angles
Parallelogram
* opposite sides parallel & equal
* opposite angles equal

Types of Triangles
Scalene Triangle
* all sides diff.
* all angles diff.
Right angle Triangle
* one angle is 90°
Equilateral Triangle
* 3 equal sides
* all 60°
Isocoles Triangle
* 2 equal sides
* 2 equal angles

Naming Angles
* alternate angles
∠PQR or ∠RQP
* corresponding angles.

C = a + b * exterior angle = sum the 2 opposite interior angles

a + b + c = 180°
* angles of a triangle add to 180°
* angles in a quadrilateral add to 360°
* a + b + c + d = 360°

Types of Work

Classwork
Copying examples with notes and completing questions during lessons

Reactive Study
Work that you <u>have</u> to do at home, i.e. homework

Proactive Study
Work that you choose to do at home, setting yourself your own work

Websites

- MathsWatch   (https://vle.mathswatch.co.uk/vle/)

    - Videos
    - Easy to navigate
    - Easy to access worksheets
    - Interactive Quizzes
    - Records progress
    - Homework quizzes (these can be printed out)
    - List of clips (see separate handout)

Websites

- CorbettMaths   (https://corbettmaths.com/)

    - 5-a-day
    - Past papers
    - Videos
    - Worksheets (QR codes)
    - Answers!

- Mathsgenie   (https://www.mathsgenie.co.uk/)

    - Past papers with solutions (hand-written and video)
    - Exam packs

Websites

- Homework Diary   (www.hwdiary.com)

  - List of MathsWatch clips
  - Upload practice papers
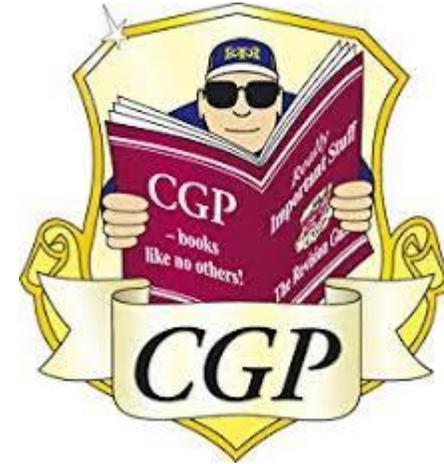 - Mock exam answers
  - Improvement Work

- Flash Cards (<u>https://www.keycardsrevision.co.uk/</u>)

  - Over 300 ready made flash cards
  - Helps to memorise facts and formulae
  - Quick and easy to use
  - Spaced repetition
  - £1.99
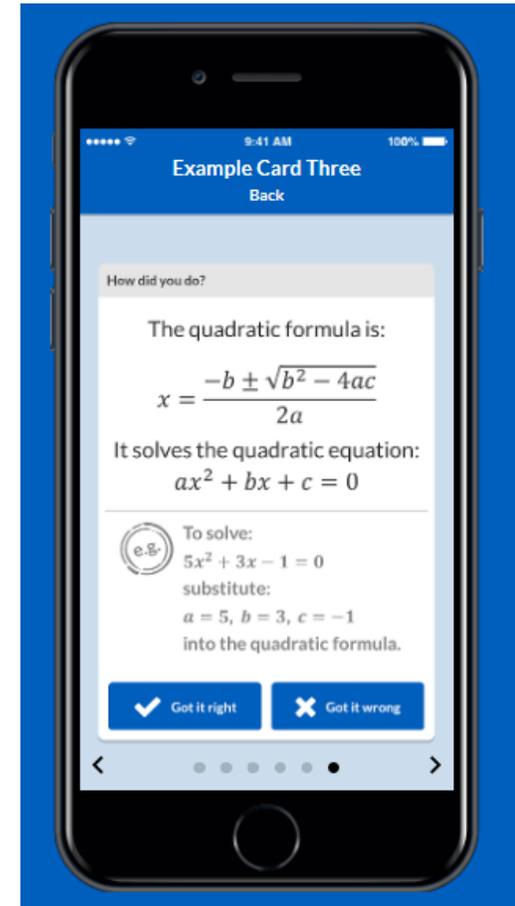
Revision Resources

Available to buy today

Available on buy on Parent Pay
   – please read the description carefully (Higher or Foundation)

Mock Exam Analysis

Question Level Analysis (QLA)

Target Grades	789
Total Score	147
Grade	7

Grade Boundaries

The following are the grade boundaries for the paper that has been completed, grade boundaries tend to fluctuate from paper to paper

Grade 3: 35	**Grade 4:** 58	**Grade 5:** 84	**Grade 6:** 115	**Grade 7:** 140	**Grade 8:** 160	**Grade 9:** 174

Non-Calculator Paper

Q	Topic	Marks	RAG	Target?	Improved?
1	Scaling Recipes	3/3	1.00		
2	Find missing angles in triangles	3/3	1.00		
3	Substitute in to a formula in words	5/5	1.00		
4	Division in context	3/3	1.00		
5	Draw a Pie Chart	3/3	1.00		
6	Substitute negatives in to an expression	2/2	1.00		
7	Draw and use Two-Way tables	4/4	1.00		
8	Calculate using Exchange Rates	2/2	1.00		
9	Fractions and Percentages of amounts	4/4	1.00		
10	Calculate using Speed, Distance and Time	1/4	0.25		
11	Percentage decrease	1/3	0.33		
12	Plot equations of non-linear graphs	6/6	1.00		
13	Read IQR from Box Plots and compare	3/6	0.50		
14	Draw and calculate using a Venn Diagram	4/6	0.67		
15	Solve simultaneous equations	3/3	1.00		
16	Understanding y=mx+c	3/3	1.00		
17	Use similar shapes to calculate missing lengths	3/3	1.00		
18	Area problem	5/5	1.00		

Improvement Work

Qu	Non Calc	MathsWatch	Improvement
1	Order integers, decimals and fractions	13	PDF Adobe Acrobat Document
2	Use the language of probability on a probability scale	40	PDF Adobe Acrobat Document
3	Add and subtract integers in context	16	PDF Adobe Acrobat Document
4	Sequences (working out next term, explaining if numbers are in a sequence)	29	
			PDF

Wednesday Support Sessions

- Bring work with you so you get help on what you need

- Chrome books will be available

Proactive Study Guidance

See booklet