

# HIGH IMPACT MATHS REVISION

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For Year 11 2017/18



St Alban's RC High School  
Be the best you can be

# November Exam Dates

Mathematics-Numeracy Unit 1 6<sup>th</sup> Nov 2017 am

Mathematics-Numeracy Unit 2 8<sup>th</sup> Nov 2017 am

Mathematics Unit 1 10<sup>th</sup> Nov 2017 am

Mathematics Unit 2 13<sup>th</sup> Nov 2017 am

# Overall Plan

- All pupils have been given PLCs based on their June results.
- The SOW has been revised in response to our performance in the June exams.
- There will be an expectation that pupils will work independently at home.
- They are being given a past paper each week to focus on.
- There will be a program of voluntary RAG classes after school in the run up to the exams.
- There will be WTM's around the time of the exams.

# PLCs



## UNIT 1

Question Number	Topic	Max mark	My Mark
1a	Find the next 2 terms in a sequence	2	2
1b	Substitution into an expression	2	2
1c	Simplifying expressions	2	0
2	Ordering fractions, decimals and percentages	3	3
3a	Reflection in the x axis	1	0
3b	Enlargement by a positive scale factor (no centre)	2	1
3c	Translation (no vector notation)	1	1
4a	Calculating probability	1	1
4b	Calculation using probability	1	1
4c	Probability	1	0
5	Number problem	2	2
6a	Listing outcomes	2	0
6b	Using list to calculate probability	2	0
7a	Calculating angles in a quadrilateral using algebra	4	NA
7b	Using angle facts to decide if lines are parallel	2	0
8a	Estimation	2	2
8b	Calculation - Using known facts	3	0
9	OCW - Area problem	7	5
10a	Calculate missing probability from a table	2	2
10b	Probability - or rule	2	2
10c	Probability - and rule	2	0
11a	Quadratic graph - substitution in equation	1	0
11b	Quadratic graph - plot points and draw graph	2	1
11c	Quadratic graph - use graph to solve an equation	2	NA
12a	Express a number as a product of its prime factors	3	2
12b	Using powers to justify that a number is not square	1	1
13a	Straight line graphs - Identify equation	1	0
13b	Straight line graphs - Identify points on the line	1	NA
13c	Straight line graphs - Find the gradient	1	0
14	Number problem	3	3
15	Dimensional analysis	3	NA
16a	Venn Diagram - Complete a diagram	3	0
16b	Venn diagram - Interpret to calculate probability	2	0
17	Simultaneous equations - Solve algebraically	4	0
18	Calculate using standard form	2	0
19	Write and solve inequalities in context	5	NA
Total		80	31

## UNIT 2

Question Number	Topic	Max mark	My Mark
1a	Calculate a percentage of an amount	2	1
1b	Calculate a fraction of a quantity	2	0
1c	Division by a fraction	1	0
1d	Equivalent fractions	1	NA
1e	Identify a recurring decimal from its fraction	1	0
2	T/F - Properties of triangles	3	1
3	Number skills - Primes and factors	2	2
4a	Function machine - Calculate an output	1	1
4b	Function machine - Calculate an input	2	1
5	Averages - find values given mean and range	2	NA
6a	Sequences - generate sequence given nth term	2	2
6b	Sequences - find the nth term rule	2	2
7a	Probability - Relative frequency	1	0
7b	Probability - Expected outcomes	2	0
7c	Probability - Expected outcomes	2	1
8	Angles - Interior angles of polygons	4	2
9	Manipulating and simplifying algebraic expressions	3	1
10	OCW - Area problem including trapezium	6	NA
11a	Calculator skills - rounding to significant figures	2	1
11b	Calculate a reciprocal - rounding to decimal places	2	NA
12	Form and solve equations - angles in a triangle	5	0
13	Trial and improvement	4	NA
14	Pythagoras' theorem - Finding a missing side	3	NA
15	Construct a triangle - given angles and a pair of compasses	3	NA
16	Trigonometry - Finding a side length	3	NA
17	Probability tree diagram	5	1
18a	Factorise a linear expression - single bracket	1	0
18b	Expand - double bracket	2	0
18c	Factorise a quadratic expression	2	NA
19a	Straight line graphs - Identify parallel lines from equations	1	NA
19b	Straight line graphs - Identify perpendicular lines from equations	1	NA
20	Circle theorems	2	NA
21	Trigonometry - Find a missing angle	5	NA
Total		80	16

# Intervention

- Some students will hopefully be involved in intervention lessons to support their journey towards grade Cs.
- This will be set up in the next fortnight, once a new member of staff has been appointed.
- In the meantime I will be running sessions during registration and through RAG after school.

# Revised SOW

- We have devised a program of topics in the run up to the exams
- They involve some revision of weaker topics and the introduction of some new topics
- All lessons follow the same format with lots of examples and exam questions
- Classes are given a past paper every week to do for homework to track progress.

# Students working independently

- We highly recommend students to be working independently in preparation for the exams. Without independent revision, you are less likely to reach your target.
- Little and often is best!
- Practise not reading your notes.
  
- Mymaths
  
- Corbett Maths

# Mymaths ([www.mymaths.co.uk](http://www.mymaths.co.uk))

Login: albanrc

Password: kite



# Mymaths (www.mymaths.co.uk)

The screenshot displays the MyMaths.co.uk website interface. At the top left is the logo with the tagline "Bringing maths alive". Navigation links include "Assessment Manager", "Help", and "Log out". A search bar is located on the right. Below the navigation is a "My portal" section with fields for "Username", "Password", and a "Log in" button. On the left side, a vertical menu lists various math topics, with "Number" selected. The main content area is titled "Number" and features a "Filter: Everything" dropdown. A list of resources is shown, with the first item, "Number facts and doubles 1", expanded to show a description and icons for "Lesson" and "Online homework".

Classic MyMaths

Library

- Number
- Algebra
- Shape
- Data
- fSkills
- Booster packs
- Statistics GCSE
- IGCSE
- A level
- Games
- Toolkit

MyMaths.co.uk  
Bringing maths alive

Assessment Manager Help Log out

Search...

My portal Username Password Log in ?

## Number

Filter: Everything

- Add subtract mental
- Add subtract written
- Counting and place value
- Calculators
- Decimals
- Estimating and accuracy
- Fractions
- Money and finance
- Multiply divide mental
- Multiply divide written
- Percentages
- Powers and roots
- Ratio and proportion
- Standard form

**1** Number facts and doubles 1  
Knowing pairs that add up to 10. Sums and doubles up to 5.  
Lesson Online homework

**2** Number facts and doubles 2

**3** Number facts and doubles 3

**4** Number facts and doubles 4

**1** Number bonds to 20

**2** Number bonds

**1** Counting on and back

**1** Counting on over 10 and 20

**2** Adding and taking away

**2** Addina together

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# Mymaths (www.mymaths.co.uk)

The screenshot displays the MyMaths.co.uk website interface. At the top left is the MyMaths.co.uk logo with the tagline "Bringing maths alive". To the right of the logo are links for "Assessment Manager", "Help", and "Log out", along with a search bar. Below these is a "My portal" section with fields for "Username" and "Password", and "Log in" and "?" buttons. On the left side, there is a navigation menu with a dropdown for "Classic MyMaths" and a list of options: "Library", "Booster packs", "Times tables booster", "Year 7 transition", "Three boosters", "Four boosters", "Five boosters", "Six boosters", "D2C" (highlighted), "C2B", "A2A\*", and "GCSE booster 4 and 5". The main content area is titled "D2C" and features a sidebar with a list of topics: "Arithmetic" (highlighted), "Number and powers", "Decimals", "Fractions", "Frac dec perc", "Ratio", "Expressions", "Sequences, formulae", "Equations", "Coordinates, graphs", "Angles", "Transformations", "Area and perimeter", and "Volume and 3D shapes". The main content area displays a list of lessons under the "Arithmetic" category. The first lesson is "4 Estimating introduction" with a description "Using rounding to estimate answers to simple calculations." and options for "Lesson" and "Online homework". Below it are other lessons: "7 Estimating calculations", "5 Decimal places", "7 Significant figures", "4 Multiply double digits", "5 Multiply triple digits", "4 Division chunking", "5 Long division", and "5 Negative numbers 2". Each lesson entry has a bookmark icon on the right. The Oxford logo is visible at the bottom left.

Classic MyMaths

MyMaths.co.uk  
Bringing maths alive

Assessment Manager Help Log out

Search... Search

My portal

Username Password Log in ?

Library

Booster packs

Times tables booster

Year 7 transition

Three boosters

Four boosters

Five boosters

Six boosters

**D2C**

C2B

A2A\*

GCSE booster 4 and 5

**D2C**

Arithmetic

Number and powers

Decimals

Fractions

Frac dec perc

Ratio

Expressions

Sequences, formulae

Equations

Coordinates, graphs

Angles

Transformations

Area and perimeter

Volume and 3D shapes

**4 Estimating introduction**

Using rounding to estimate answers to simple calculations.

Lesson Online homework

**7 Estimating calculations**

**5 Decimal places**

**7 Significant figures**

**4 Multiply double digits**

**5 Multiply triple digits**

**4 Division chunking**

**5 Long division**

**5 Negative numbers 2**

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## PIXL March 17 Maths Intermediate U1

Question	Topic	Video Clip	Max	Mark
1a	Powers	172	2	
1b	Multiplying decimals	94	1	
1c	Subtracting decimals	91	1	
1d	Subtracting fractions (different denominators)	133	2	
2a	Continue a sequence	286	2	
2b	Simplify an expression (two types of term)	9	2	
2c	Substitute into a formula	20	2	
3	Order fractions, decimals and percentages	131	3	
4	Find a percentage of a fraction of an amount	234/137	4	
5	Angles in triangles and quadrilaterals	37/33	5	
6a	Solve an equation with an unknown on both sides	113	3	
6b	Simplify using index form	174	2	
6c	Expand and simplify an expression involving brackets	13	2	
7	Properties of number	225	2	
8	Sample space diagram, probability, expected value	246	8	
9	Volume and capacity of a cuboid	355	4	
	<b>OCW</b>		2	
10	Using averages and range to find a set of values	50/53/56/57	4	

# Corbett Maths (www.corbettmaths.com)

The screenshot displays the Corbett Maths website interface. At the top, the logo 'Corbettmaths' is shown with the tagline 'Videos, worksheets, 5-a-day and much more'. A navigation menu includes 'Welcome', 'Videos and Worksheets', '5-a-day', 'More Resources', 'About', and 'Revision Cards'. A search bar is located on the right side of the menu.

The main content area features a breadcrumb trail: 'Home > Videos > Names of 2D Shapes - Video 1'. Below this, the title 'Names of 2D Shapes - Video 1' is displayed, along with the date 'December 20, 2013' and the user 'corbettmaths'. A video player is embedded, showing a title card for 'Names of 2D Shapes - Corbettmaths' with a play button. The title card lists six shapes with their names: a pink triangle labeled 'triangle', a green square labeled 'quadrilateral', an orange pentagon labeled 'pentagon', a purple hexagon labeled 'hexagon', a yellow heptagon labeled 'heptagon', and a light pink rounded rectangle.

On the right sidebar, there is an 'RSS feed' icon, a section for 'Corbettmaths Revision Cards' with a note 'Available for Higher or Foundation Tier' and an image of the cards, and a 'Calculator' section featuring an image of a Casio FX-991EX calculator.

# Corbett Maths ([www.corbettmaths.com](http://www.corbettmaths.com))



2D Shapes  
Video 1 on [www.corbettmaths.com](http://www.corbettmaths.com)

Examples



Click here



Scan here

Workout

Question 1: Draw the following shapes

- (a) A square
- (b) A rectangle
- (c) A circle
- (d) A triangle
- (e) A semi-circle
- (f) A pentagon
- (g) An octagon
- (h) A hexagon
- (i) A decagon
- (j) A heptagon

Question 2: Name each of the shapes below



# Corbett Maths ([www.corbettmaths.com](http://www.corbettmaths.com))

Name:

Exam Style Questions

## 2D Shapes



Corbettmαths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

### Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.

# WTM

- Around the time of the exams we will be running Walking Talking Mocks with our classes.
- This is the process of giving hints and tips on a question, letting the pupils have a go and then modelling the correct answer so they get immediate feedback.
- We have found in the past that this has given pupils a lot of confidence in the days before their exams.