

THE FOCUSED 15

Exploring a concentrated curriculum

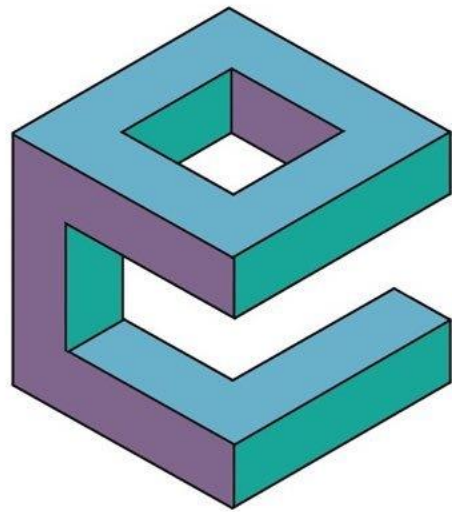
Emma Bell - @El_Timbre



HELLO!

I'm Emma Bell

@El_Timbre





Manaminc 8/7/2015 - STEM Centre

Resourcing mathematics learning

Wednesday 8th July 2015, 10:00 to 16:00
National STEM Centre, York

This evaluation sheet has two sides

	Very good	Good	Average	Poor	Very poor
Rachael Horsman, Comberton Village Academy					
Emma Bell, Franklin College					


Please circle the workshops you attended

	Very good	Good	Average	Poor	Very poor
Operational Research, Charlene Timewell					
or					
Dyslexia, Dyscalculia and Dyspraxia, June Massey,					

York, 2015



The Focused 15

- » What is it?
 - » Why is it needed?
 - » How was it formulated?
 - » How has it been received?
 - » Do you have anything to share?
- 

1. **WHAT IS IT?**



EDUCATION & TRAINING FOUNDATION

**C4
ME**
+ = × ÷

**CENTRE
FOR
MATHS
EXCELLENCE**

This is **YOUR** year!

FF01

Types of Number


FF02

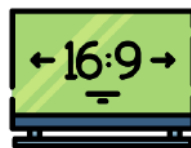
Using Number


FF03

Simple Probability


FF04

Ratio


FF05

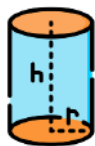
Measures


FF06

Rounding & Approximation


FF07

Perimeter, Area & Volume


FF08

Proportion


FF09

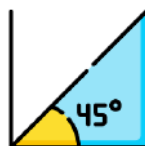
Simplify & Solve


FF10

Percentages


FF11

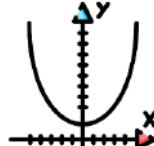
Angle Properties


FF12

Representing Data


FF13

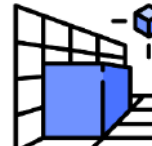
Solve & Graph


FF14

Averages & Spread


FF15

Transformations



2.

WHY IS IT NEEDED?



HELLO

my name is

Failure



[Research](#)[Funding](#)[Students and teachers](#)[Impact](#)[Latest](#)[About](#)[Contact](#)

Research | Projects

A new mathematics GCSE curriculum for post-16 resit students

 January 2019 - January 2020

3.

HOW WAS IT FORMULATED?

GCSE Mathematics

Topic	Spec Ref	AO	Question	Skill tested	4	3
Paper 1F NON CALCULATOR (F)						
Number	N6	1	Q01	Roots and powers	0.88	0.78
Number	N15	1	Q02	Rounding; Inequality notation to specify error interval	0.67	0.46
Algebra	A1	1	Q03a	Algebraic manipulation	0.60	0.49
Algebra	A17	1	Q03b	Solve linear equations	0.18	0.08
Ratio	R9	1	Q04	Percentages and problems involving percentage change	0.83	0.60
Number	N12	1	Q05	Fractions, decimals and percentages as operators	1.89	1.73
Probability	P3	1	Q06i	Theoretical probability; appropriate language; 0-1 probability scale	0.62	0.60
Probability	P3	1	Q06ii	Theoretical probability; appropriate language; 0-1 probability scale	1.00	0.99
Number	N2, N13	3	Q07	Units of mass, length, time, money and other measures (including standard units)	2.63	2.51
Number	N2, N8	1	Q08a	Calculate exactly with fractions	0.68	0.57
Number	N2, N8	1	Q08b	Calculate exactly with fractions	1.35	0.83
Ratio	R11	3	Q09	Use compound units	2.78	2.13
Ratio	R4	1	Q10	Ratio notation, reduction to simplest form	0.97	0.64
Algebra	A23	1	Q11a	Generate terms of a sequence	1.46	1.19
Algebra	A23	1	Q11b	Generate terms of a sequence	1.64	1.49
Number	N4	2	Q11c	Primes, factors, multiples	0.65	0.46
Probability	P2, P7	1	Q12	Randomness, fairness and equally likely events	1.82	1.70
Ratio	R2	1	Q13a	Scale factors, scale diagrams and maps	0.55	0.46
Ratio	R2, G14	2	Q13b	Scale factors, scale diagrams and maps	1.11	0.88
Statistics	S2	2	Q14a	Pie charts	1.72	1.07
Statistics	S2	2	Q14b	Pie charts	0.21	0.11
Geometry	G16,N2	3	Q15	Area of triangles, parallelograms, trapezia	2.48	1.62
Algebra	A2	1	Q16	Substitute values into formulae and expressions	0.82	0.47
Ratio	R10	1	Q17	Solve problems involving direct and inverse proportion	3.08	2.29
Geometry	G17,N14	3	Q18a	Approximation and estimation	1.74	0.70
Number	N14	3	Q18b	Approximation and estimation	0.12	0.03
Algebra	A17	1	Q19a	Solve linear equations	1.19	0.71

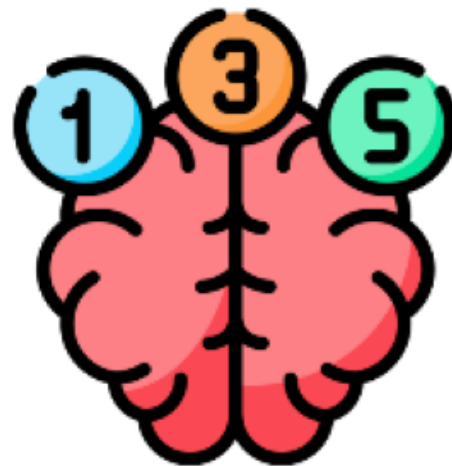
FF01

Types of Number



FF02

Using Number





4. HOW HAS IT BEEN RECEIVED?



The Skills

AWARDS 2020

FINALIST



5.
**DO YOU HAVE
ANYTHING TO
SHARE?**

This is **YOUR** year!



C4ME Portal

Made with an open mind

c4me - centre for maths excellence

Premise



What is "The Focused 15"?

We examined examination data from the first two sittings of the 9-1 GCSE Maths specification from an exam board. This covered well over a million items of data and as a result we were able to identify the topics that, on the whole, grade 4 students were competent with, but grade 3 students were not. We refined this scheme using the next exam series, and now have our second iteration of the 'Focused 15'. These are fifteen interconnected topics which vary in size and difficulty, but build over time to give a rounded, good level of mathematical understanding – not just for an exam, but for each individual student's future.

002 C4ME Circular 27Sep19

PDF document

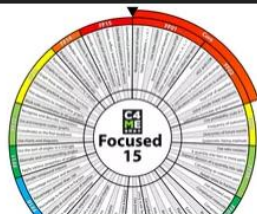
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The Topics

This is **YOUR** year!



The New Wheel (v3)



F15 Wheel 20-21

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Objectives

PDF version of objectives

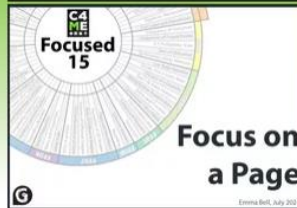
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Focused_15_Sequence_June_2020

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Focus on a Page



The F15 - Focus on a Page

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Downloadables

C4ME NonCalc Assessment
FF01 – Types of Number
FF02 – Using Number
1 HOUR – 50 marks

Name.....

Teacher.....

1	What is the value of the 4 in the number 34587?
	A 4000 B 400 C 4 D 40 E 40000
2	$554 + 387 =$
	A 1042 B 1031 C 1041 D 1032 E 941
3	$831 - 75 =$
	A 746 B 754 C 768 D 756 E 844
4	$6039 \div 3 =$

FF01 FF02 Assessment v2

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FF01 and FF02 Mark Scheme

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