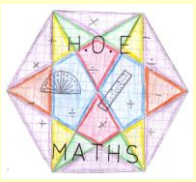


Ambition · Inclusion · Opportunity

Year 10 English and **Maths** information evening

The Howard of Effingham School
'Bringing out the best'



Maths Curriculum Intent



Ambition · Inclusion · Opportunity



Developing students' mathematical and creative problem-solving abilities



Challenging and supporting learners at all levels, giving them skills and confidence to tackle a diverse range of problems, from simple puzzles to national competitions.



Providing opportunities to experience the buzz of finding solutions, learn skills needed for everyday life, and understand how much of the world is underpinned by mathematics.



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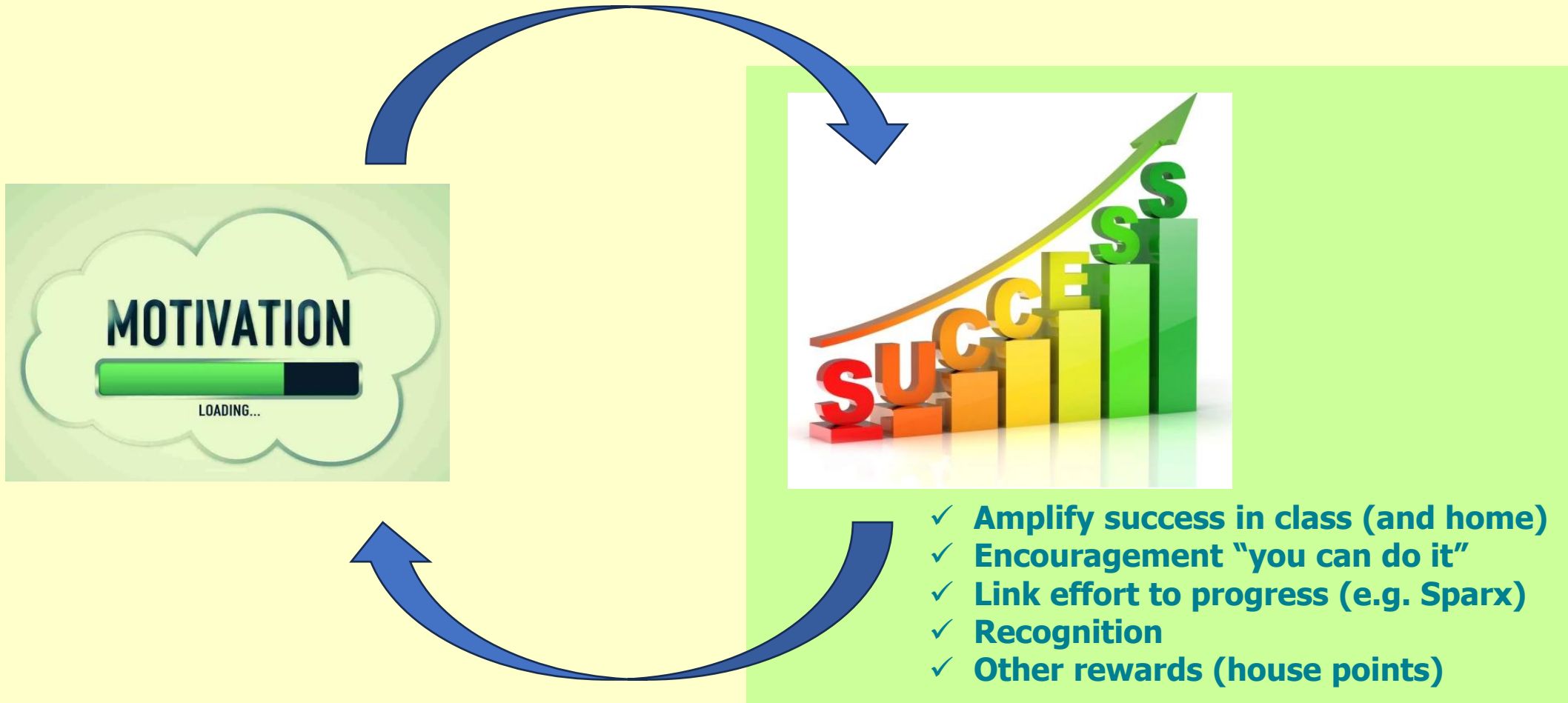
Today's objective

- Share information to help maximise year 11 maths outcomes
 - How to help motivate students
 - Higher vs Foundation tier decision
 - GCSE papers and key challenges to overcome
 - Our plan and support available for year 10 and 11
- ✓ **Ways you can help**

Motivation - the fundamentals



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Motivation – future options



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A level qualifications

A Level Subject	GCSE grades required to study the course at A Level
Biology	Biology/Science (6 and above) AND Maths (5 and above)
Chemistry	Chemistry / Combined Science (6 and above) AND Maths (6 and above)
Computing	Computer Science (5 and above if taken), AND Maths (6 and above)
Maths	Maths (7 and above)
Further Maths	Maths (8 and above)
Physics	Physics (6 and above) AND Maths (6 or above)
Psychology	English (6 and above) AND Maths (6 and above).

Other courses

National requirement grade 4 maths
(otherwise continue to study maths)
Some courses require a 5

Level 2 further maths

Additional qualification studied in year 11

Entry requirement is a grade 7 in year 10 maths assessment

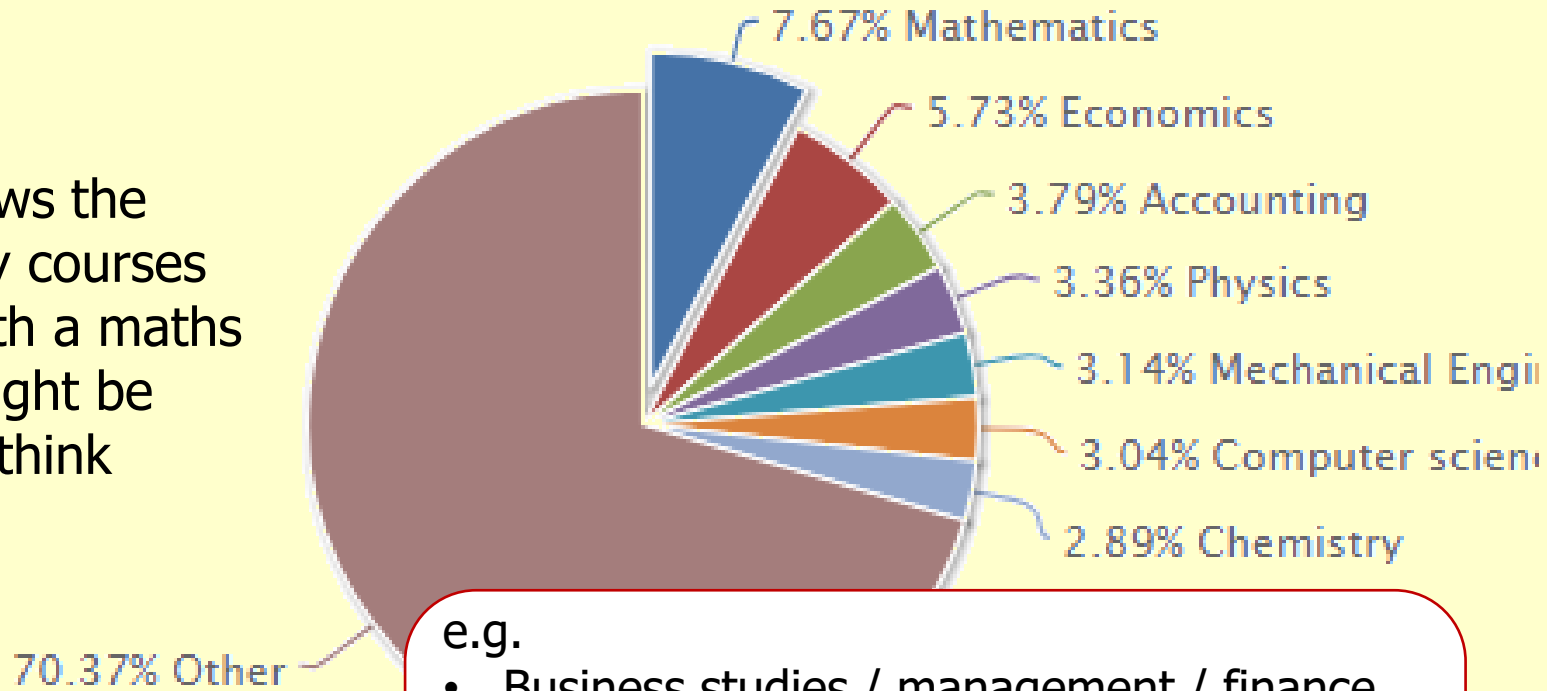
In Jun 2026, L2 FM helped all 39 students achieve grade 8 or 9 at GCSE

Careers

✓ **Encourage students to look around! The more ideas the better**

Motivation – future options if considering A-level maths

This pie chart shows the range of university courses taken by those with a maths A-level – which might be broader than you think



e.g.

- Business studies / management / finance
- Medicine / Veterinary / Biology / Sport
- Other engineering courses
- Architecture / Materials / Building
- History / Politics / Sociology / Statistics
- Etc etc....

- Also degree apprenticeships

Source: Bestcourseforme.com

Higher vs foundation tier context



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(vs old grading)

	A*			A		B			C	D	E
Grade	9	8	7	6	5	4	3	2	1		
Higher											
Foundation											

7 or above is for very strong academic mathematicians.

Only 23% of Y11s nationally achieved grade 7 or above
(40% at the Howard)

5 is a good grade!

Only 55% of Y11s nationally achieved grade 5 or above
(72% at the Howard)

✓ **Reiterate that being in a foundation tier class at the Howard does not mean you are no good at maths!"**
Only 72% of Y11s nationally achieved a grade 4
(86% at the Howard)

Higher vs foundation grade boundaries



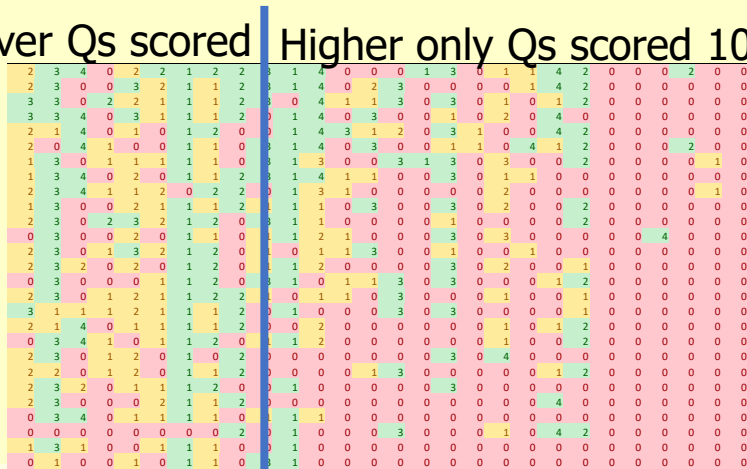
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Grade	9	8	7	6	5	4	3	2	1
Higher %	87	74	61	48	34	21	14		
Foundation %					75	63	46	29	12

A common myth exists that it is easier to get a grade 5 on higher than foundation. Not true!

Crossover Qs scored 12/25 Higher only Qs scored 10/55

Traffic light of a crossover class marks on a Higher paper



For students around the grade 5 level, difficult higher tier papers can demotivate some students. It can be more rewarding taking foundation and being able to succeed with most of the questions vs a third of them on the higher paper.

Of course if you have a chance of a 6 then the higher tier is best.



We teach three schemes of work



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Year 10
curriculum focus

Year 10 curriculum focus	A*	A	B	C	D	E			
Grade	9	8	7	6	5	4	3	2	1
Higher									
Crossover									
Foundation									

Decision timings on which tier students will take in year 11:

A good guide following Y10 Summer mocks (to decide the most appropriate Autumn Y11 curriculum)

Final decision following Y11 December mocks (entries in Feb)

- ✓ Take year 10 seriously!
- ✓ Aim high (for them)

GCSE papers

Edexcel

3 papers x 1.5 hours

P1 non-calculator, P2 and P3 calculator

80 marks each, 240 in total

Higher and Foundation papers overlap by approx one third

e.g. Foundation Q21-27 might be Higher Q1-7 (25/80 marks overlap)

✓ **Have the right equipment in school**



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Please check the examination details below before entering your candidate information

Candidate surname	Other names
Centre Number	Candidate Number

Pearson Edexcel Level 1/Level 2 GCSE (9–1)

Wednesday 3 June 2026

Morning (Time: 1 hour 30 minutes) **Paper reference 1MA1/2F**

Mathematics
PAPER 2 (Calculator)
Foundation Tier

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB or B pencil, eraser, calculator, Formulae Sheet (enclosed). Tracing paper may be used.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- If pencil is used for diagrams/sketches/graphs it must be dark (HB or B).
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working**.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- **Calculators may be used.**
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

Information

- The total mark for this paper is 80
- The marks for **each** question are shown in brackets – *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

Please check the examination details below before entering your candidate information

Candidate surname	Other names
Centre Number	Candidate Number

Pearson Edexcel Level 1/Level 2 GCSE (9–1)

Thursday 14 May 2026

Morning (Time: 1 hour 30 minutes) **Paper reference 1MA1/1H**

Mathematics
PAPER 1 (Non-Calculator)
Higher Tier

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB or B pencil, eraser, Formulae Sheet (enclosed). Tracing paper may be used.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- If pencil is used for diagrams/sketches/graphs it must be dark (HB or B).
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
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- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

Some key challenges for students



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- **Longer / worded problems**
- **Layout / workings (proportional thinking)**
- **Maths vocabulary**
- **'Fluffy mistakes'**
- **Huge breadth of topics**

✓ **IMCA approach helps with many of these**

Read and highlight - what key vocabulary and information and do I have? What is the question asking?

Information



Plan - what Maths/Methods can I use? Can I represent the problem with a diagram?

Maths (**M**ethods)



Perform – well presented calculations and working out

Calculations



Check - is my answer clear? Does it make sense? Did I answer the question? Units? Rounding?

Answer



I.M.C.A.

Problem
solving model



Information

*Read and highlight - what information do I have?
What is the question asking?*



Maths (**M**ethods)

Plan - what Maths/Methods can I use? Can I represent the problem with a diagram?



Calculations

Perform – well presented calculations and working out



Answer

Check - is my answer clear? Does it make sense? Did I answer the question? Units? Rounding?

Foundation paper examples



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- **Worded problems**

- ✓ **Encourage highlighting/underlining**
- ✓ **Encourage one step at a time, including notes by the question**
- ✓ **(Many questions reference real-life contexts – which you may know about)**

9 Sam had a total of 35 bread rolls to sell.
The full price of each roll is 50p

In the morning, Sam sold 22 rolls at the full price.

In the afternoon, she sold the rest of the rolls at half price.

Work out the total amount of money Sam got from selling the rolls.
Give your answer in pounds.

(Total for Question 9 is 3 marks)

Foundation paper examples



Ambition · Inclusion · Opportunity

- **Worded problems**

- ✓ **Encourage highlighting/underlining**
- ✓ **Encourage one step at a time, including making notes by the question**
- ✓ **(Many questions reference real-life contexts – which you may know about)**

24 Harry invests £3800 in a savings account.

The account pays compound interest at a rate of 4.2% per year for 3 years.

In the fourth year, the annual interest rate of the account changes to 5.6%

Calculate the total amount of money in the account at the end of the fourth year.

(Total for Question 24 is 4 marks)

Foundation paper examples

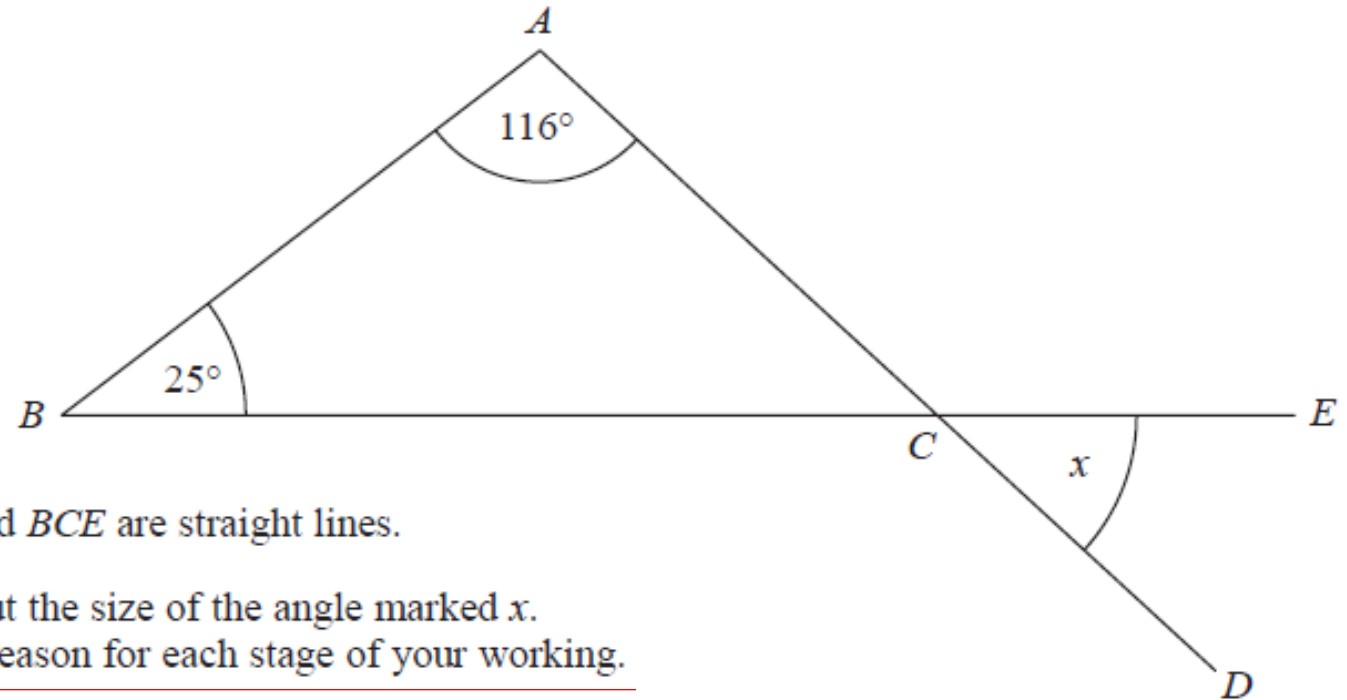


Ambition · Inclusion · Opportunity

- **Layout / workings**

✓ **Encourage diagrams, and writing on given diagrams**

11 The diagram shows a triangle ABC .



ACD and BCE are straight lines.

Work out the size of the angle marked x .
Give a reason for each stage of your working.

Foundation paper examples



Ambition · Inclusion · Opportunity

- **Layout / workings – proportional thinking**

17 A pack of 5 cakes costs £1.40
A pack of 9 cakes costs £2.70

Artem thinks the pack of 9 cakes is better value for money than the pack of 5 cakes.

Show that Artem is **not** correct.

✓ **Encourage vertical layout**

$$\begin{array}{rcl} & 5 \text{ cakes} & = \text{£}1.40 \\ \div 5 \swarrow & & \searrow \div 5 \\ & 1 \text{ cake} & = \underline{\hspace{2cm}} \end{array}$$

$$\begin{array}{rcl} & 9 \text{ cakes} & = \text{£}2.70 \\ \div 9 \swarrow & & \searrow \div 9 \\ & 1 \text{ cake} & = \underline{\hspace{2cm}} \end{array}$$

Foundation paper examples



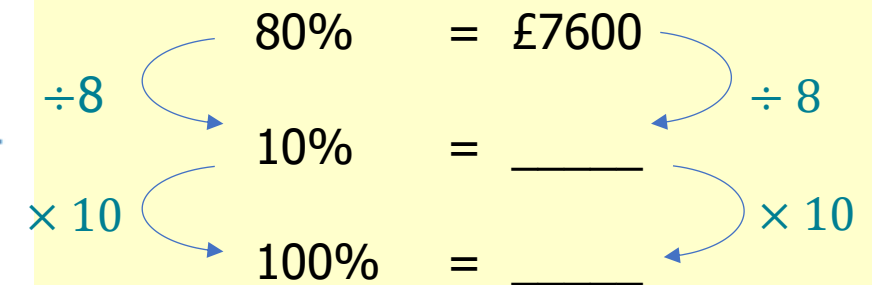
Ambition · Inclusion · Opportunity

- **Layout / workings – proportional thinking**

27 Lethna buys a car.

She gets a discount of 20% off the price of the car.
Lethna pays £7600 for the car.

Work out the price of the car before the discount.



✓ **Encourage
vertical
layout**

Foundation paper examples



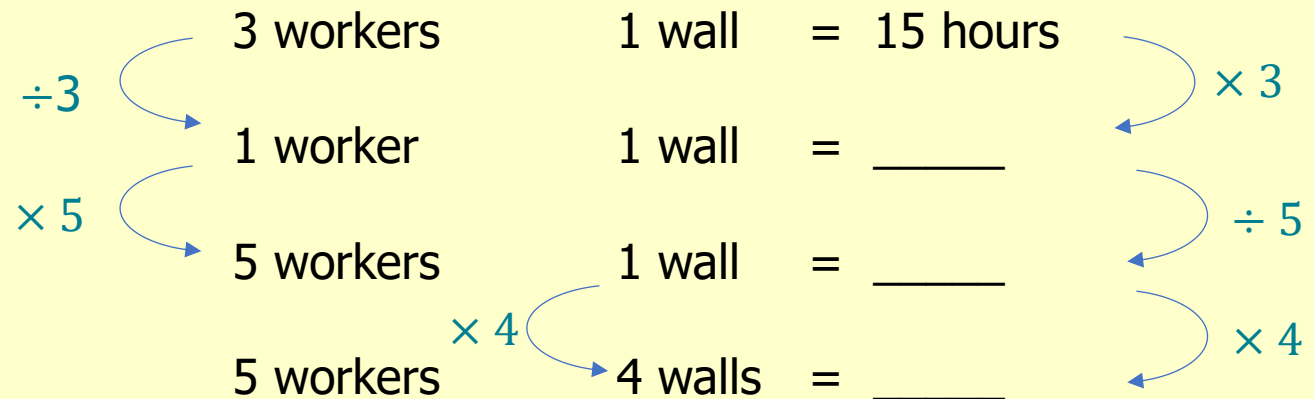
Ambition · Inclusion · Opportunity

- **Layout / workings – proportional thinking**

23 3 workers take 15 hours to build 1 wall.

(a) How many hours will 5 workers take to build 4 of these walls?

✓ **Encourage vertical layout**



Foundation paper examples



Ambition · Inclusion · Opportunity

- **Maths vocabulary** and 'command words'

26 Work out an estimate for $\frac{4.9^2}{0.022}$

20 (a) Expand and simplify $(x + 7)(x - 9)$
(b) Solve $20 + 3x = 7x - 12$

23 (a) Write 0.000 004 5 in standard form.

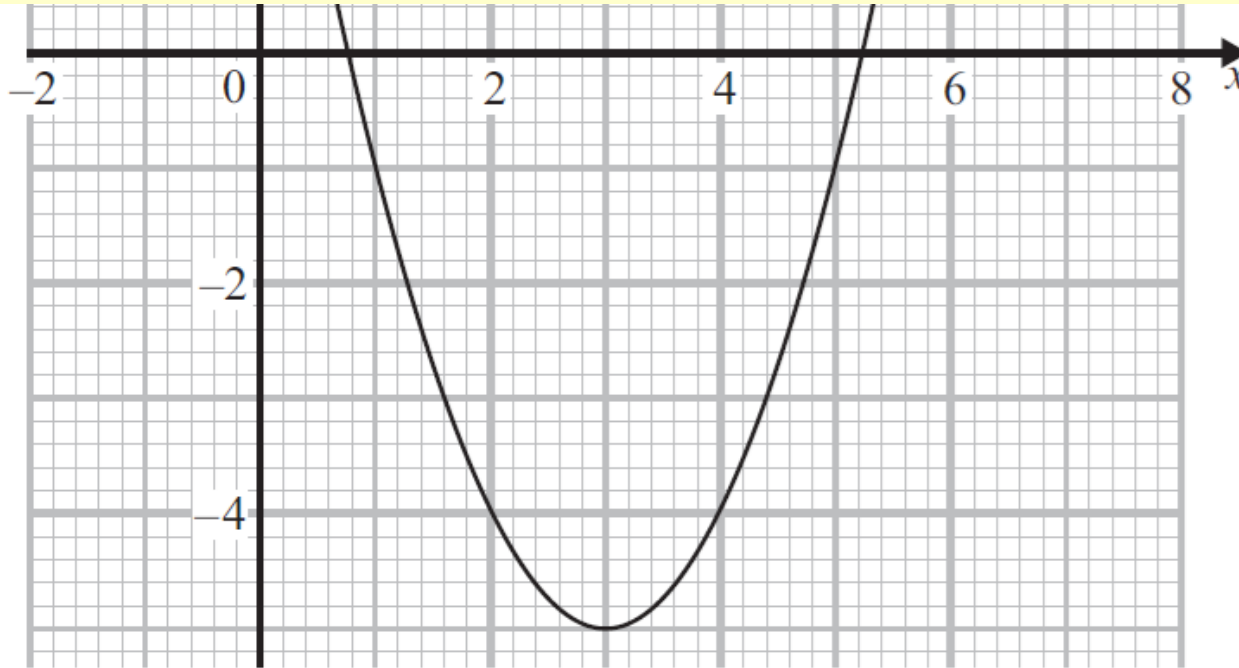
✓ **(Y11) revision such as corbettmaths 5-a-day, and Sparx flashcards**

Foundation paper examples



Ambition · Inclusion · Opportunity

- **Maths vocabulary** and 'command words'



✓ (Y11) revision such as corbettmaths 5-a-day, and Sparx flashcards

- (a) Write down the coordinates of the turning point of $y = x^2 - 6x + 4$
- (b) Use the graph to find estimates for the solutions of the equation $x^2 - 6x + 4 = 0$



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Foundation paper examples

- **'Fluffy mistakes'** despite them knowing their stuff

18 This sign was in a doctor's waiting room.

115 appointments were missed last month.

These missed appointments were a total of 25.3 hours.

Work out the mean length of time for each missed appointment.
Give your answer in minutes.

✓ Use IMCA
Check it!



Answer

Check - is my answer clear? Does it make sense? Did I answer the question? Units? Rounding?

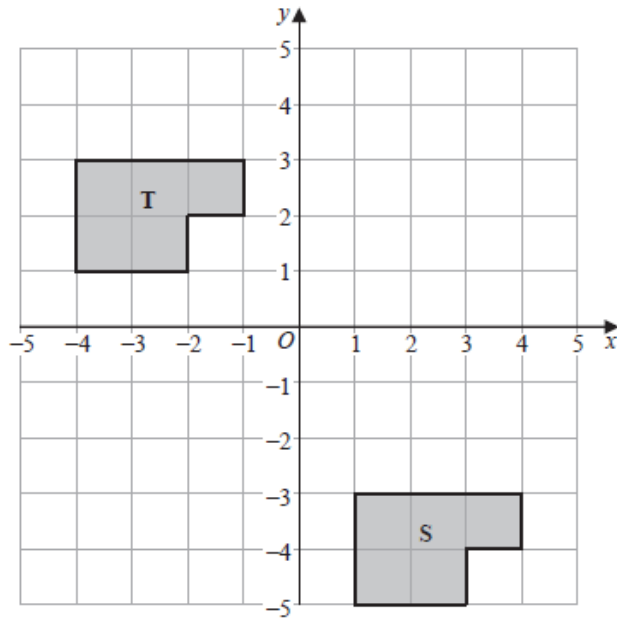
Higher paper examples



Ambition · Inclusion · Opportunity

- **Maths vocabulary** and 'command words'

2



Describe fully the single transformation that maps shape S onto shape T.

✓ (Y11) revision such as corbettmaths 5-a-day, and Sparx flashcards

Maths Command Words

**DRAW/SKETCH:**

Draw implies accuracy
Sketch does not need accurate measurement.

CONSTRUCT:

Draw accurately using compasses and ruler

SHOW: show all your working or show the information on a diagram

GIVE REASONS: give clear and accurately worded reasons for each step (eg geometrical reasons)

PROVE THAT: use logical steps with reasons to arrive at the answer (don't start with the answer! All steps must be included and in right order)

JUSTIFY: show working or give written explanation

SOLVE: find the value of the unknown which makes the equation true

EXPRESS: write it in a different way.

EXPAND: multiply out brackets.

EXPLAIN: write a sentence or mathematical statement which shows how you got your answer.

ESTIMATE: round all the numbers in your calculation to 1 significant figure.

WRITE DOWN: the answer does not require any calculation

FACTORISE (FULLY): Take out common factors or put into 2 brackets if quadratic

INTERPRET: Relate what you see to the real life situation

SIMPLIFY: make the calculation or expression 'smaller' by collecting like terms, factorising, cancelling down

CALCULATE / WORK OUT: use a mathematical operation (add, subtract etc) to find your answer.

DESCRIBE: use maths words to write what's happening eg, a transformation

IN TERMS OF π : leave π in the answer

HENCE: use the first part of the question

EVALUATE: find the number answer to an expression or apply the power.



Higher paper examples

- **Layout** and **full workings**

7 In Spain, Sam pays 27 euros for 18 litres of petrol.
In Wales, Leo pays £40.80 for 8 gallons of the same type of petrol.

$$1 \text{ euro} = \text{£}0.85$$

$$4.5 \text{ litres} = 1 \text{ gallon}$$

Sam thinks that petrol is cheaper in Spain than in Wales.

Is Sam correct?

You must show how you get your answer.

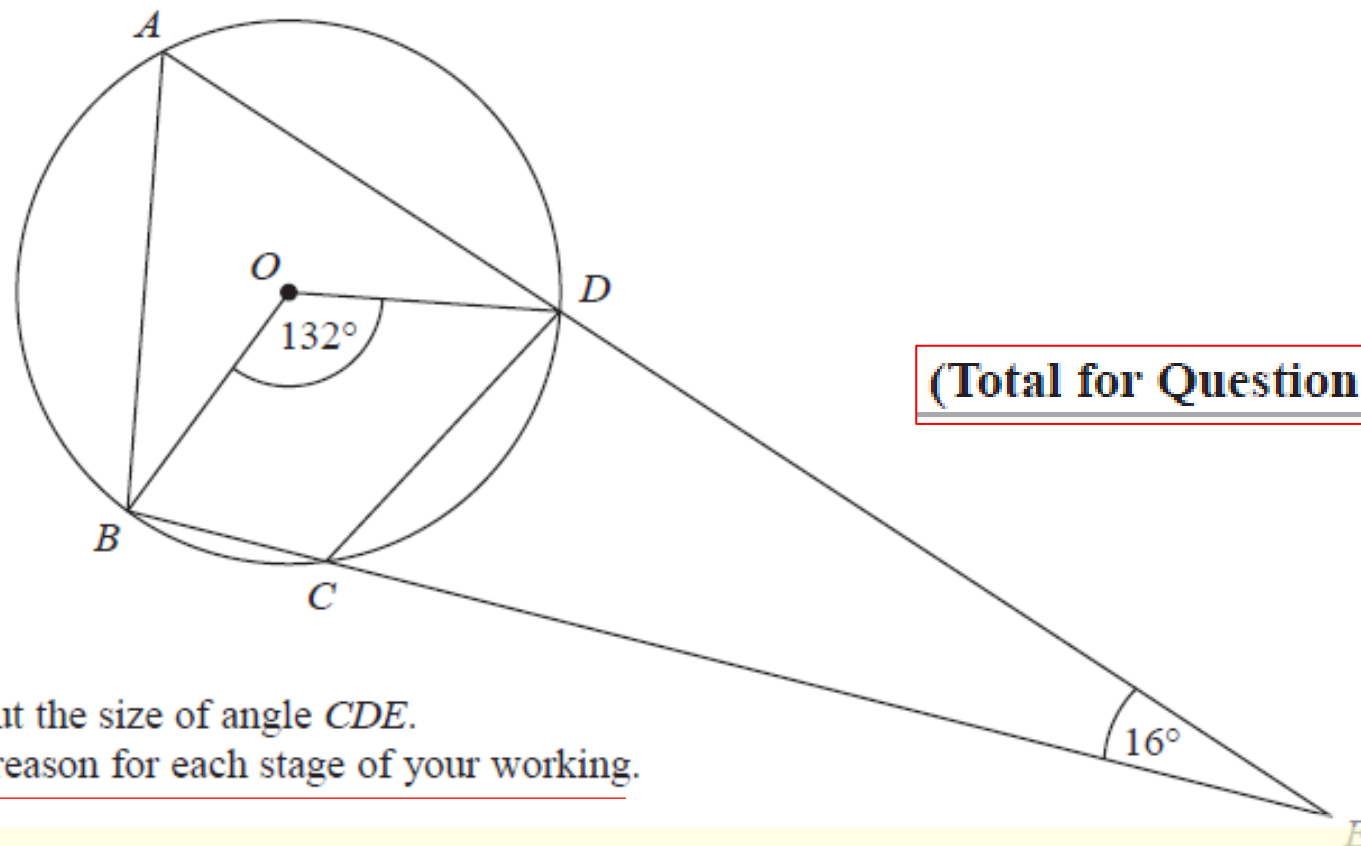
(Total for Question 7 is 4 marks)



Higher paper examples

- **Layout** and **full workings**

20 A, B, C and D are points on the circumference of a circle, centre O .
 ADE and BCE are straight lines.



(Total for Question 20 is 4 marks)

Work out the size of angle CDE .
Give a reason for each stage of your working.

- ✓ Encourage diagrams, and writing on given diagrams



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Higher paper examples

- **Layout and full workings**

11 Kieron has 13 workers he can use for a job.

He knows that 6 workers would take $14\frac{1}{2}$ days to complete this job.

Show that Kieron has enough workers to finish this job in less than 7 days.

(Total for Question 11 is 3 marks)

12 The equation of the line L_1 is $y = 2x + 3$

The equation of the line L_2 is $5y - 10x + 4 = 0$

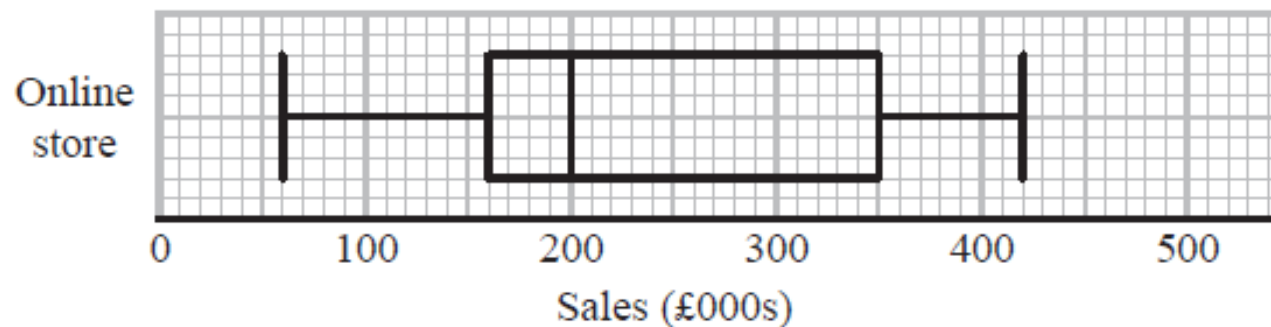
Show that these two lines are parallel.

(Total for Question 12 is 2 marks)

Higher paper examples

- **Written answers**

10 The box plot shows information about the sales, in thousands of pounds (£000s), of an online store each month.



Andrew says,

“Three quarters of the given data lies between 160 000 and 350 000 because these are the values of the lower quartile and the upper quartile.”

Andrew is wrong.

(a) Explain why.

✓ **Do it right! e.g. “He should have said.....”** (1)

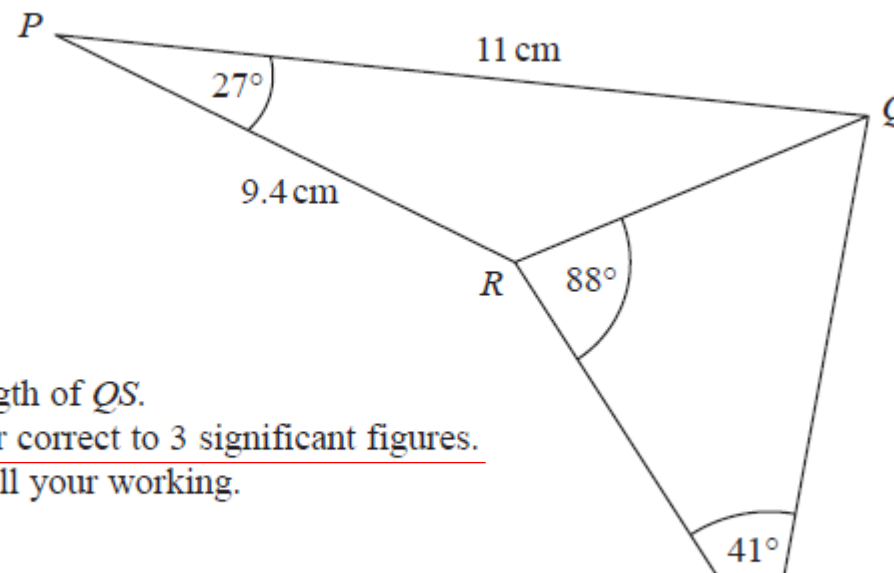
(c) Compare the distribution of the sales of the online store with the distribution of the sales in the shop.

(2)

Higher paper examples

- **'Fluffy mistakes'** despite them knowing their stuff

18 PQR and QRS are triangles.



Calculate the length of QS .

Give your answer correct to 3 significant figures.

You must show all your working.

✓ Use IMCA
Check it!



Answer

Check - is my answer clear? Does it make sense? Did I answer the question? Units? Rounding?

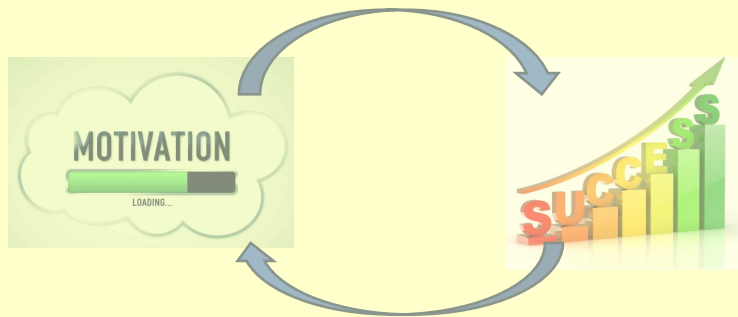
The plan!



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We launched a **new curriculum** this year, making use of a revision booklets.

- Optimised phasing of units
- Improved lesson resources
- Increased support with revision
- Tangible record of progress



Mathematics 2026-2028

Year 10 & 11 Foundation Revision Booklet

Name: _____

Class: _____

Teacher/Room: _____

Year	Assessment 1	Assessment 2	Target Grade
10			
11			

The plan!



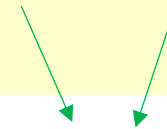
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Unit 1 – Percentages, Fractions and Decimals (2.5 weeks)

				0 = don't know it, 1 = familiar, 2 = confident			
Topic	Core Concepts, Knowledge and Skills	Grade	Sparx Code	Y10 PKC	Y11 PKC	Y10 Review	Y11 Review
1	Shade fractions and read fractions from diagrams	1	U679				
2	Put decimals in size order	2	U435				
3	Add and subtract decimals with no calculator	2	U478				
4	Compare and order fractions	3	U746				

Students do regular **Prior Knowledge Checks** and **Unit Reviews**.

They record **key notes** and **priority topics** to help focus revision for mock exams



Y10 Unit Review		
Unit	Topic	Sparx Code
1		
2		

The plan!

Regular assessment with unit reviews  and full mocks 

✓ **Revise for unit reviews and mocks (using topic booklets)**

Y10 learning journey

Autumn 1	1	Percentages, Fractions and Decimals	
	2	Rounding and Accuracy	
	3	Ratio and Proportion	
	4	Compound Measures	
Autumn 2	5	Types of Number	
	6	Probability	
	7	Expressions and Formulae	
	8	Sequences	
Spring 1	9	Expand and Factorise	
	10	2D shapes	
	11	Units and 3D shapes	
	12	Equations and Inequalities	
Spring 2	13	Straight Line Graphs	
	14	Transformations, Similarity and Vectors	
	15	Angles	
Summer 1	16	Trigonometry and Pythagoras	
	17	Quadratics	
	18	Averages and Spread	
	19	Displaying and Interpreting Data	
Summer 2		Revision and assessment	
	20	Symmetry, Constructions and Loci	

Y11 learning journey

Autumn 1	Continue the spiral curriculum	
Autumn 2	Continue the spiral curriculum	
Spring 1	Continue the spiral curriculum	
Spring 2	Consolidation and exam skills	
Summer 1	Consolidation and exam skills	

Content covered by Feb, allowing consolidation and exam skills

Additional KS4 maths support options

✓ **Encourage them to take advantage!**



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Online revision resources e.g. DrFrost, mathsgenie, physicsandmathstutor, justmaths, corbettmaths

dfm

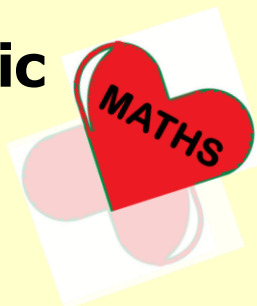
Weekly SPARX

- ✓ **Compulsory**
- ✓ **Target**
- ✓ **XP boost**

Sparx Maths



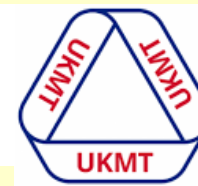
Maths clinic
3.30pm
Wednesday



Lunchtime clinic
Friday

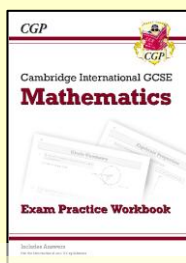
Careers support

**Intermediate
maths challenge**

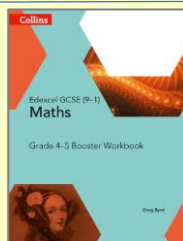


**L4L Numeracy
sessions**

Y11



**Y11 revision
workbooks and
'grade boosters'**



**Y11
tutoring**

**Y11 exam
skills sessions**



The Howard of Effingham School
'Bringing out the best'

Finally, a note on Sparx

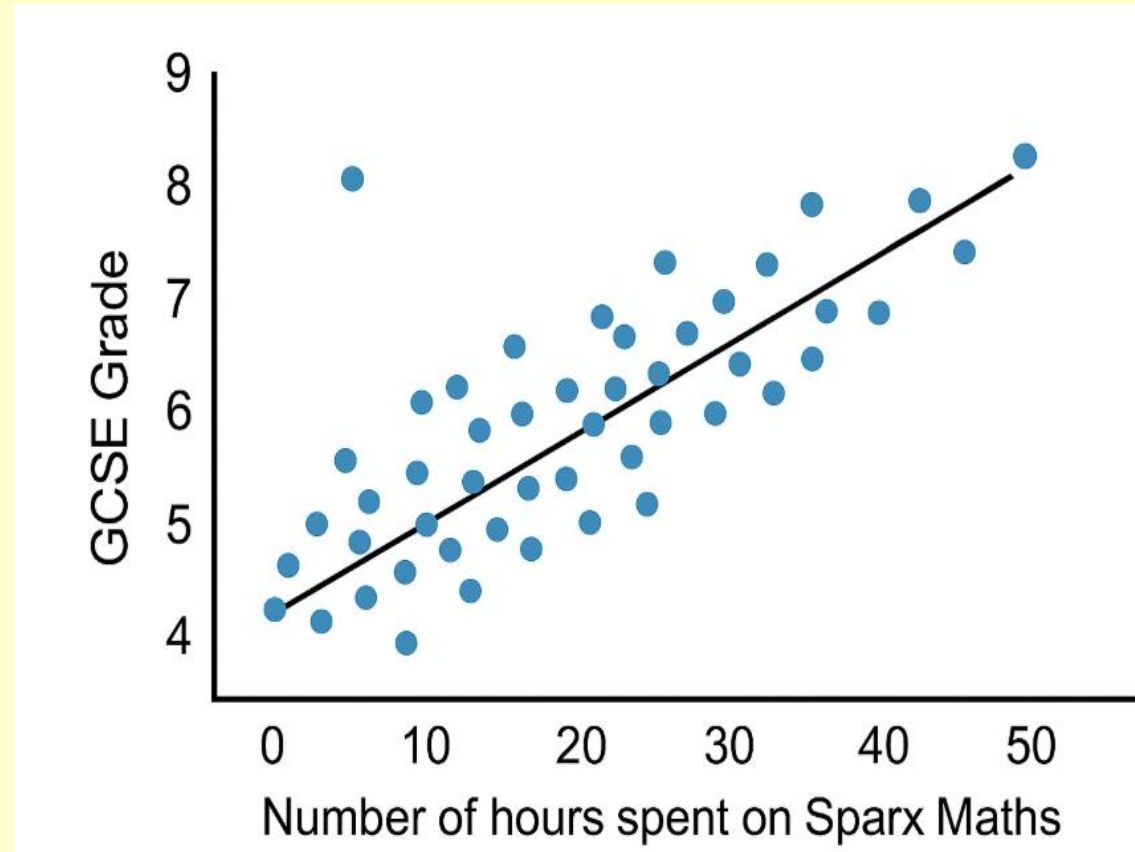


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Two “middle set” classes’ independent learning time in GCSE maths in a THPT school last year

Encourage

- ✓ **No A.I.**
- ✓ **Do it early**
- ✓ **Maths clinic for support**



Weekly SPARX
✓ **Compulsory**
✓ **Target**
✓ **XP boost**

Who to contact:

- Maths teachers

10aH1	Mr Rose
10aH2	Miss Morgan
10aX	Mr Brooksbank
10aF	Mrs Stileman

10rH1	Mr Dodson
10rH2	Mr Williams
10rX	Mrs Malterre (Mrs Stileman)
10rF	Mrs Faulkner

- Mrs Stileman (KS4 lead and 2i/c)
- Mr Brooksbank (head of maths)