



Welcome

How we can support your child together

Miss Dawes- Maths

Miss Parocki- Science

Ms Terry- English



Maths

Miss Dawes – Teacher of Mathematics/Lead for Whole School Numeracy

Main Points for discussion:

- What are the challenges students face in Mathematics?
- How can Purple Pathway students continue to thrive through Foundation stage into KS4?
- What can we do to support the students?



National Curriculum Strands in Mathematics

Fluency – the ability to recall and apply knowledge rapidly and accurately and that the fundamentals of mathematics are mastered.

Reasoning – predicting, developing and justifying using mathematical language.

Problem Solving – applying their knowledge to a variety to problems. Breaking down problems into simpler steps and persevering in seeking solutions.



4-5/C grade GCSE question – Fluency

Railtickets and Cheaptrains are two websites selling train tickets.

Each of the websites adds a credit card charge and a booking fee to the ticket price.

- Non Calculator

Railtickets

Credit card charge: 2.25% of ticket price

Booking fee: 80 pence

Cheaptrains

Credit card charge: 1.5% of ticket price

Booking fee: £1.90

Nadia wants to buy a train ticket.

The ticket price is £60 on each website.

Nadia will pay by credit card.

Will it be cheaper for Nadia to buy the train ticket from Railtickets or from Cheaptrains?

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(Total 4 marks)



4-5/C Grade GCSE question – Reasoning

Dylan is driving from London to Newcastle.
He will drive a total distance of 240 miles.

- Non calculator

Dylan leaves London at 09:30

It takes him $1\frac{1}{2}$ hours to travel the first 90 miles.

- (a) Use this information to estimate the time Dylan will arrive in Newcastle.
You must show how you get your answer.

|

.....
(3)

- (b) Write down **one** assumption you made in your answer to part (a).
If your assumption is wrong, how would this affect your answer to part (a)?

.....
.....
(1)

(Total 4 marks)



4-5/C Grade GCSE question – Problem Solving

- Non calculator

Jane has a carton of orange juice.
The carton is in the shape of a cuboid.

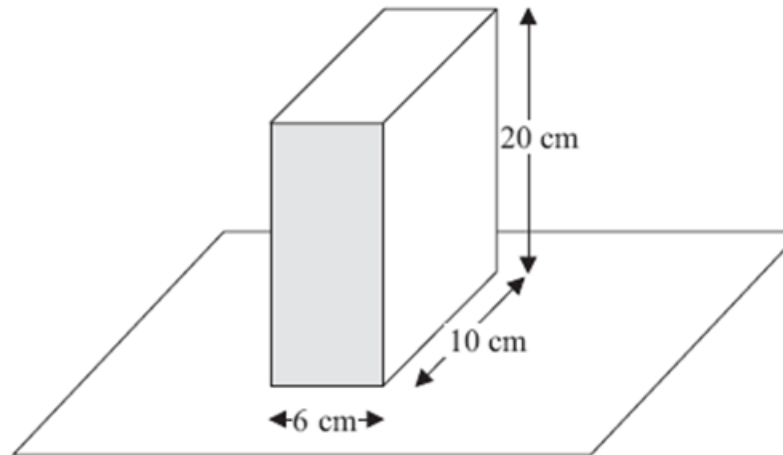


Diagram **NOT**
accurately drawn

The depth of the orange juice in the carton is 8 cm.

Jane closes the carton.
Then she turns the carton over so that it stands on the shaded face.

Work out the depth, in cm, of the orange juice now.

|

..... cm

(Total 3 marks)

New GCSE Grades

KS2/3	Old GCSE	New GCSE
	A*	9H
	A*	9M
	A*	9L
	A*	8H
	A1	8M
	A1	8L
	A2	7H
	A2	7M
	A3	7L
	B1	6H
	B1	6M
8b	B2	6L
8c	B3	5H
7a	B3	5M
7b	C1	5L
7c	C2	4H
6a	C3	4M
6b	C3	4L
6c	D1	3H
5a	D2	3M
5b	D3	3L
5c	E1, E2	2H
4a	E3	2M
4b	F1	2L
4c	F2	1H
3a	F3, G1	1H
3b	G2	1M
3c	G3	1L



MAIDEN ERLEGH

TRUST



June 2017 Edexcel Paper 1



Higher Paper

34% of marks required simple **times tables** knowledge

Foundation Paper

44% of marks required simple **times tables** knowledge



June 2017 Edexcel Paper 1



Higher Paper

44% of marks required simple **basic arithmetic** knowledge

Foundation Paper

66% of marks required simple **basic arithmetic** knowledge



Times Tables and Multiplication

As we have seen, basic arithmetic is essential to success in the new GCSE in Foundation and Higher tiers.

How can we support this?

Encourage rote learning of times tables, but also applying their knowledge ie.

- Division (if they know $7 \times 8 = 56$ what is $56 \div 8$?)
- Multiplication (using a column or grid multiplication for more complex calculations).
- Place value (if you know that $7 \times 8 = 56$, what is 70×800 ?)



Times Tables Sorted? What Next?...

It is important that we also support students in their Reasoning and Problem Solving skills.

Ways students can develop these skills at home:

- Using Mathematical language
- Measuring and using mathematical equipment.
- Understanding shape.
- Talking about size and scale.
- Practising word problems and breaking problems into logical steps.



Resources for home

- MyMaths

Username: Maidenerlegh

Password: Pentagon



- Pixl Maths App
- Pixl Times Tables App

PC/Mobile/Tablet - School ID: ME823

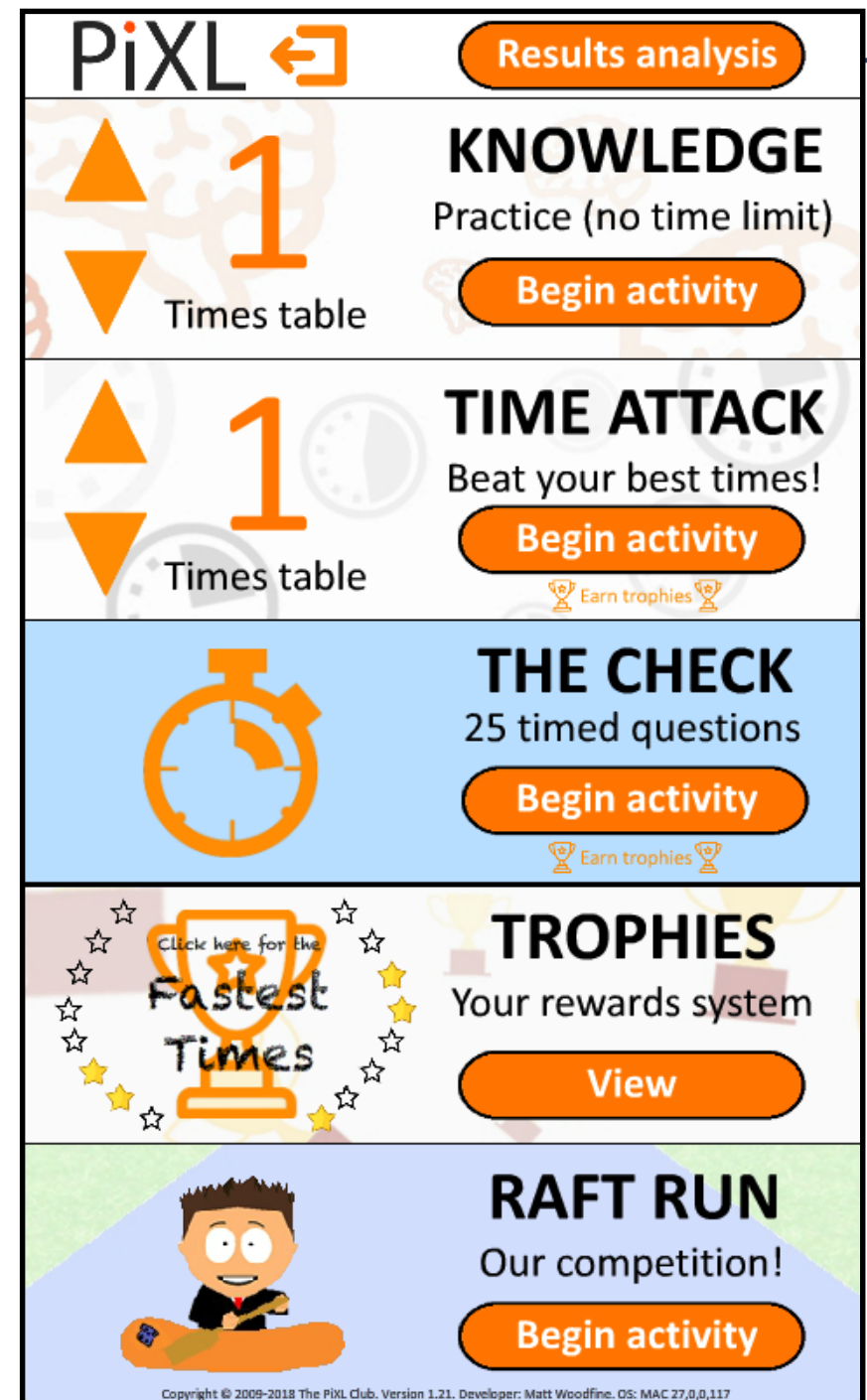


- Corbett Maths Videos and 5 a day



Pixl Times Tables App

- Practice questions
- Time attack – students play themselves!
- The Check – Students are given 5 seconds to answer a structured sequence of questions to overcome hurdles
- Trophies
- Raft run – students play other students
- Fastest times grid
- Results analysis





Maths drop-in: Wednesday 3-4pm M2

- Homework
 - Revision
 - Catch-up from lessons
 - Extra/enrichment work
-
- Supported by members of maths department, Sixth formers and university volunteers.



Science

What are the challenges faced by our students at Foundation stage and moving forward with the new GCSE course?

How can you as parents/guardians best support your child with this?

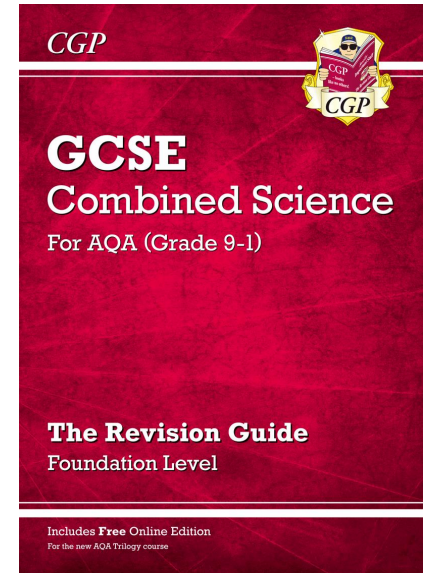
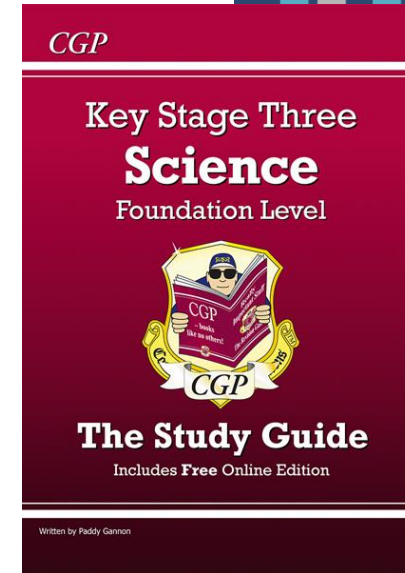


Challenges

- Amount of content
- High literacy demand
- High numeracy demand

Amount of Content

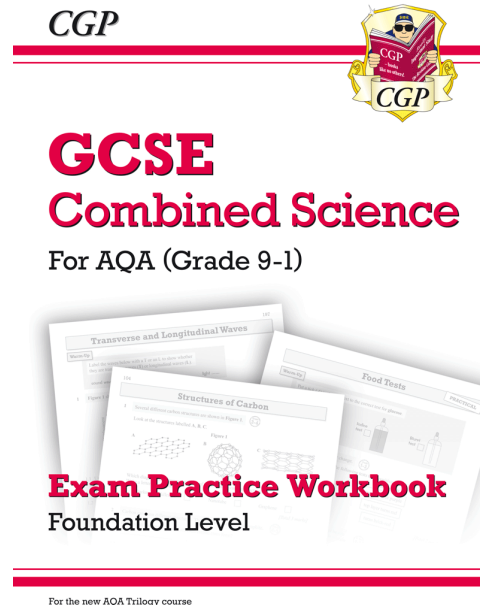
- Consolidate after each lesson
- Use a revision guide
- Pick between 3-5 key points
- Produce revision resources from day one





High Literacy Demand

- Subject-specific vocabulary
 - Glossaries & quizzes available on [Kerboodle](#) for each topic at Foundation and GCSE
- Command words
 - What is the question actually asking you to do?
- 6 mark questions
 - Planning sheet
 - Practice makes perfect





High Numeracy Demand

- 20 equations
- Units = easy marks
- Practice makes perfect

$$\begin{aligned} V &= IR \\ W &= mg \\ F &= ke \\ F &= BIl \\ Q &= It \end{aligned}$$



English

FAQs:

- What are the challenges students face in English?
- How can Purple Pathway students continue to thrive through Foundation stage into KS4?
- What can we do to support the students?

Main Skills that are measured in English

Literacy – Spelling, punctuation, vocabulary and grammar.
Accuracy is important.

Reading – Comprehension and analysis (how does the writer make us feel sympathy etc.)

Writing – Writing formal English for a variety of purposes – using the right style for the purpose.



Edexcel GCSE English Language

- Two papers
- Reading comprehension and analysis
- Writing (one creative, the other 'transactional')
- Some colleges now accept either Language or Literature.



Edexcel GCSE English Literature

- Two papers.
- One Shakespeare play, one modern play, one 19th Century novel (short) and 16 poems.
- Quotations must be learned.
- Some colleges now accept either Language or Literature.



Spelling and Vocabulary

Essential to success (vocabulary can help if poor spelling)

How can we support this?

Encourage reading and conversation.

- Read with your child. Sound out words they struggle with.
- If they cannot read more complex texts, read to them or use audio books.
- Check comprehension – what do you think will happen next, how do you think he/she feels now?



Punctuation and Grammar

It is important to master the basics.

At home:

- Re-read your child's homework (any subject) and check for capital letters, full stops, commas and apostrophes.
- Make sure you know the rules. (Google is great!)



Resources for home

- BBC Bitesize

- Language and Literature by exam board.
- As well as KS4, they have KS3 and younger with games etc.



- Grammarly

- Grammar checker as well as rules.



- Project Gutenberg

- 19th Century novels for free.





English Reading Help

- After school phonics and interactive reading comprehension.
- Times vary. Contact us for information.