



**KING EDWARD VI
HANDSWORTH GRAMMAR
SCHOOL FOR BOYS**



**KING EDWARD VI
ACADEMY TRUST
BIRMINGHAM**



**START OF YEAR INFORMATION
YEAR 8**

www.hgsmaths.com

Introduction

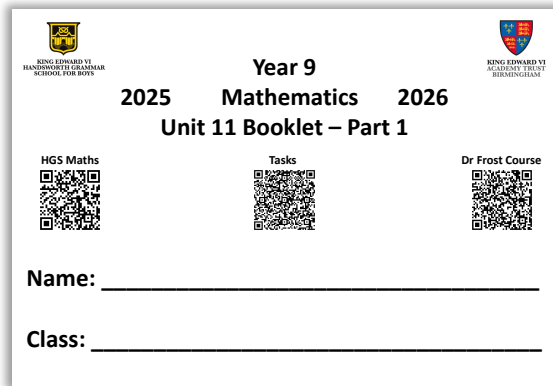
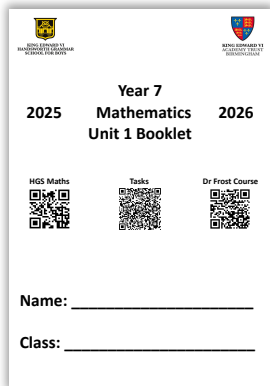
This short presentation will outline how we will work in mathematics.

We will look at:

- **Booklets – Student and Task**
- **Exercise Book and Equipment**
- **Homework and Retrieval Practice**
- **Good Habits**
- **Assessments**
- **Online Platforms – HGS Maths and Dr Frost**
- **Revision**
- **Enrichment**
- **Support**
- **Motivation and Success**

Student Booklets

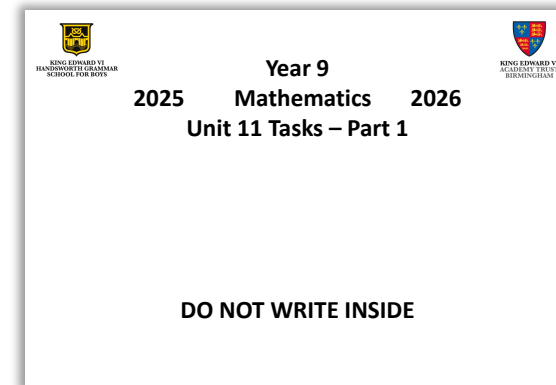
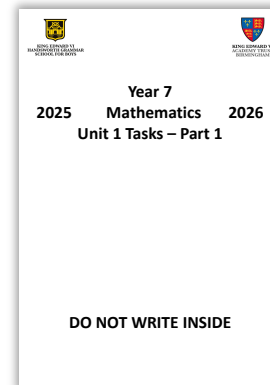
- All notes and examples will be completed in printed booklets.
- You must keep your booklets neat and up to date.
- **Booklets will be kept in school until fully completed, after which you will be allowed to take them home.**



Note: Year 7 and 8 booklets are portrait, while Year 9, 10, and 11 booklets are landscape.

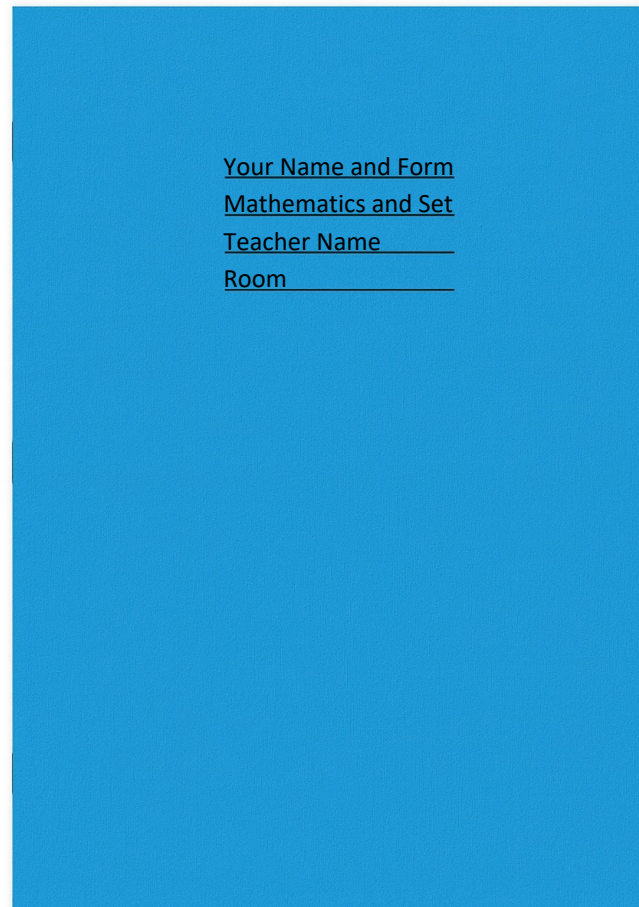
Task Booklets

- Questions will be projected on the board or provided in a task booklet.
- **Do not write in the task booklets, as they will be reused next year.**



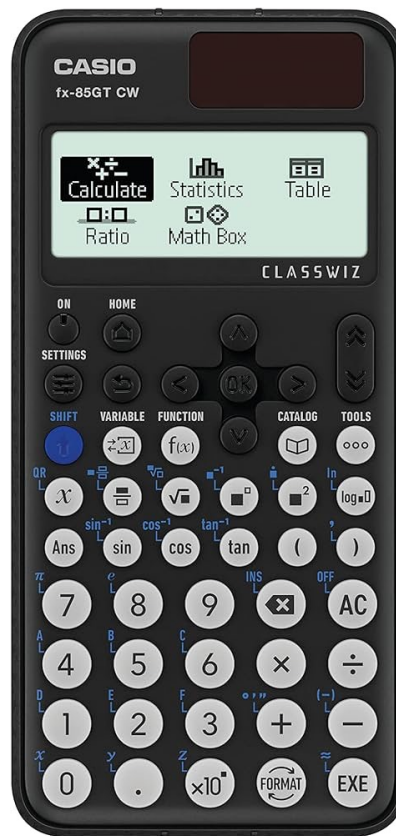
Exercise Book

- This is your book for all classwork and homework exercises. You should keep it neat.
- All **classwork** is done at the **front** of the book.
- All **homework** is done at the **back** of the book.
- All marking will be done through self-assessment or peer assessment.
- You should always include:
 - **Dates**
 - **Headings**
 - **Margins**
- **You must take this book home and bring it to every lesson.**



Equipment

- You must bring the following equipment to every lesson, along with your exercise book:
 - **2 pens (ideally black)**
 - **1 red or green pen**
 - **Pencil**
 - **Ruler**
 - **Sharpener**
 - **Eraser**
 - **Protractor**
 - **Compass**
 - **Calculator (Casio fx-85GT CW or fx-991CW)**
- A full equipment pack can be purchased from the school – details will be posted on Microsoft Teams.



Homework

- You will receive **two homework tasks per week**. They will be **recorded on Satchel One**.
- One homework will be a retrieval task set online using Dr Frost, completed by the entire year group. This begins after half term for Year 7.
- The second homework will be set by your classroom teacher(s). This could be another Dr Frost task or an exercise from the task booklet.
- **Always show your working at the back of your blue exercise book for any Dr Frost homework.**

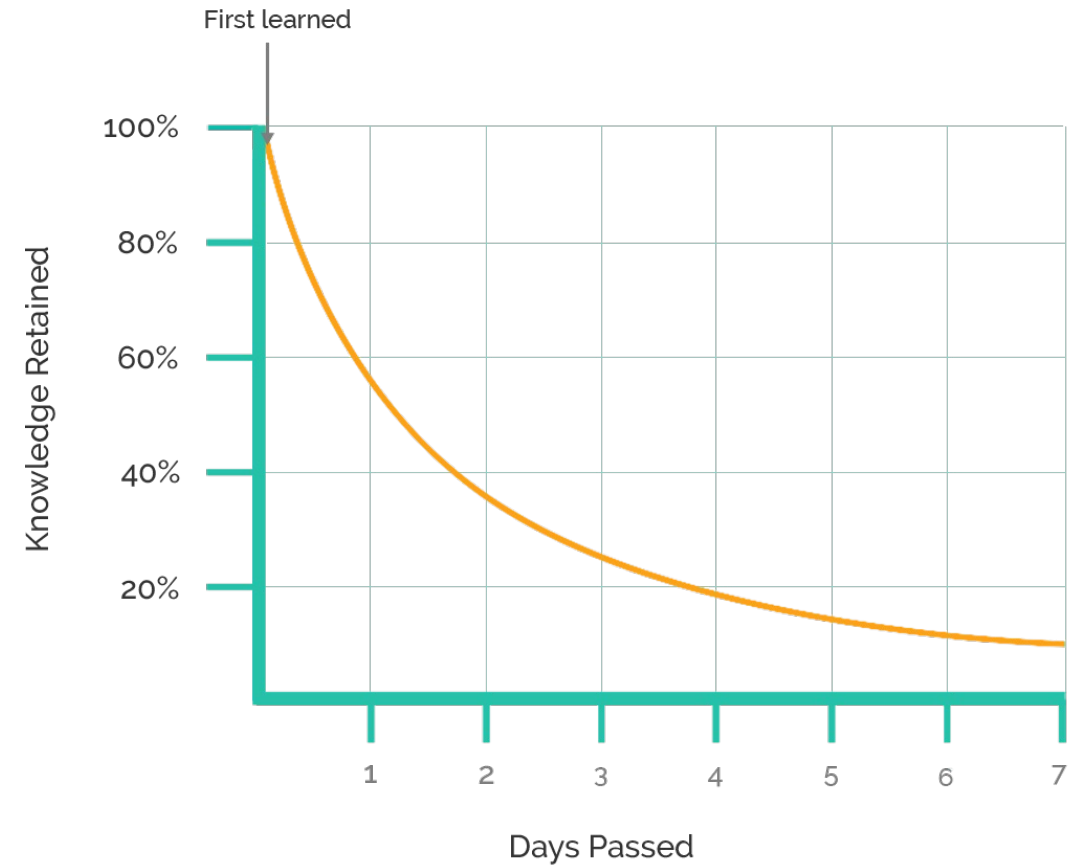
- **If you score 100% on a Dr Frost homework, you will be awarded a house point.**
- **If you fail to complete your homework, you will be sanctioned (see the policy below).**

| Stage | Sanction | Contact |
|-------|---|--------------------------|
| 1 | Verbal warning/reprimand | Email FT/Parent |
| 2 | Short teacher detention (5 minutes) | Email FT/Parent |
| 3 | Longer teacher detention (break or 15 minutes after school) | Email FT/Parent |
| 4 | Department detention (30 minutes) | Email FT/Parent and HoY |
| 5 | Department detention (45 minutes) | Call home + Email FT/HoY |
| 6 | Department detention (60 minutes) | Call home + Email FT/HoY |
| 7 | Whole school – parents called in | HoD/HoY meeting |

Retrieval Practice – What Is The Point?

- **Bad news:** We forget new information quickly after learning it.
- **Steep forgetting curve:** Memory fades rapidly unless reinforced.
- **Normal brain function:** The brain filters what's worth remembering based on repetition and importance.
- **One-time exposure isn't enough:** If you only think about something once, the brain likely won't retain it.

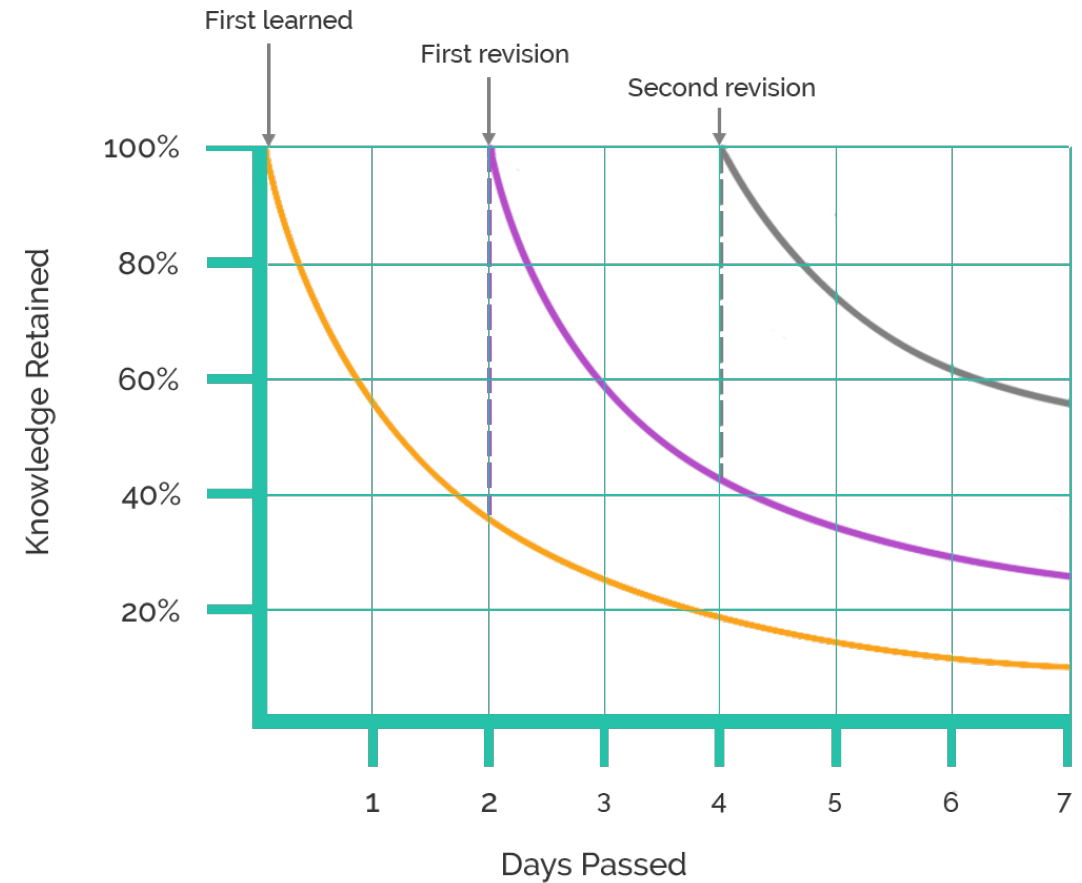
The Forgetting Curve



Retrieval Practice – What Is The Point?

- **Good news:** Actively trying to recall information slows forgetting.
- **Retrieval signals importance:** Each effort to recall tells your brain the memory matters.
- **Repeated retrieval strengthens memory:** The more you retrieve it, the more deeply it's embedded.
- **Practical tip:** Try to recall material during repeated tasks (like RP homework, Do Now, Entrance Tickets, or quizzes).
- **Why it matters:** Using your memory this way helps you retain knowledge long-term.

Effect of Spaced Repetition



Good Habits At Home

To succeed in maths, you need good habits at home:

- **Get enough sleep**
Aim for 8-10 hours – your brain needs rest to focus and learn.
- **Avoid distractions**
Do homework somewhere quiet, without phones or games.
- **Use technology wisely**
Tools like ChatGPT can explain topics clearly, but it is important that you try the work yourself.
- **Build a routine**
Set a regular study time each day. A little every day is better than cramming.

BENEFITS OF ENOUGH SLEEP



Better Brain

Improved memory
and concentration



Better Body

Improved energy



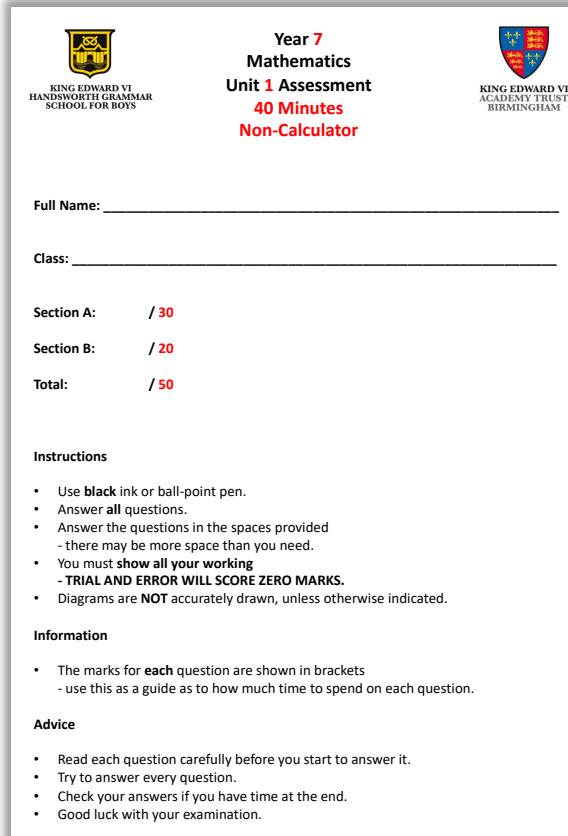
Better Mood



Improved emotional
resilience



Assessments

- You will complete **entrance and exit tickets in class** to check your understanding of current or previous work.
- You will also have **formal assessments at the end of every unit**.
- There will be a **separate end-of-year exam**.



 **Year 7 Mathematics** 
Unit 1 Assessment
40 Minutes
Non-Calculator

Full Name: _____

Class: _____

Section A: / 30
Section B: / 20
Total: / 50

Instructions

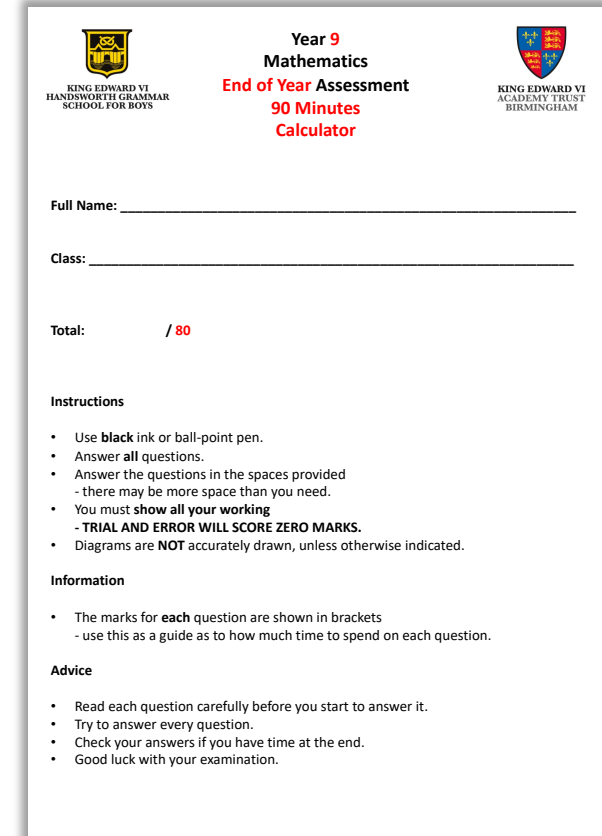
- Use **black** ink or ball-point pen.
- Answer **all** questions.
- Answer the questions in the spaces provided
- there may be more space than you need.
- You must **show all your working**
- **TRIAL AND ERROR WILL SCORE ZERO MARKS.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.



Information

- 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.
- Good luck with your examination.



 **Year 9 Mathematics** 
End of Year Assessment
90 Minutes
Calculator

Full Name: _____

Class: _____

Total: / 80

Instructions

- Use **black** ink or ball-point pen.
- Answer **all** questions.
- Answer the questions in the spaces provided
- there may be more space than you need.
- You must **show all your working**
- **TRIAL AND ERROR WILL SCORE ZERO MARKS.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.


Information

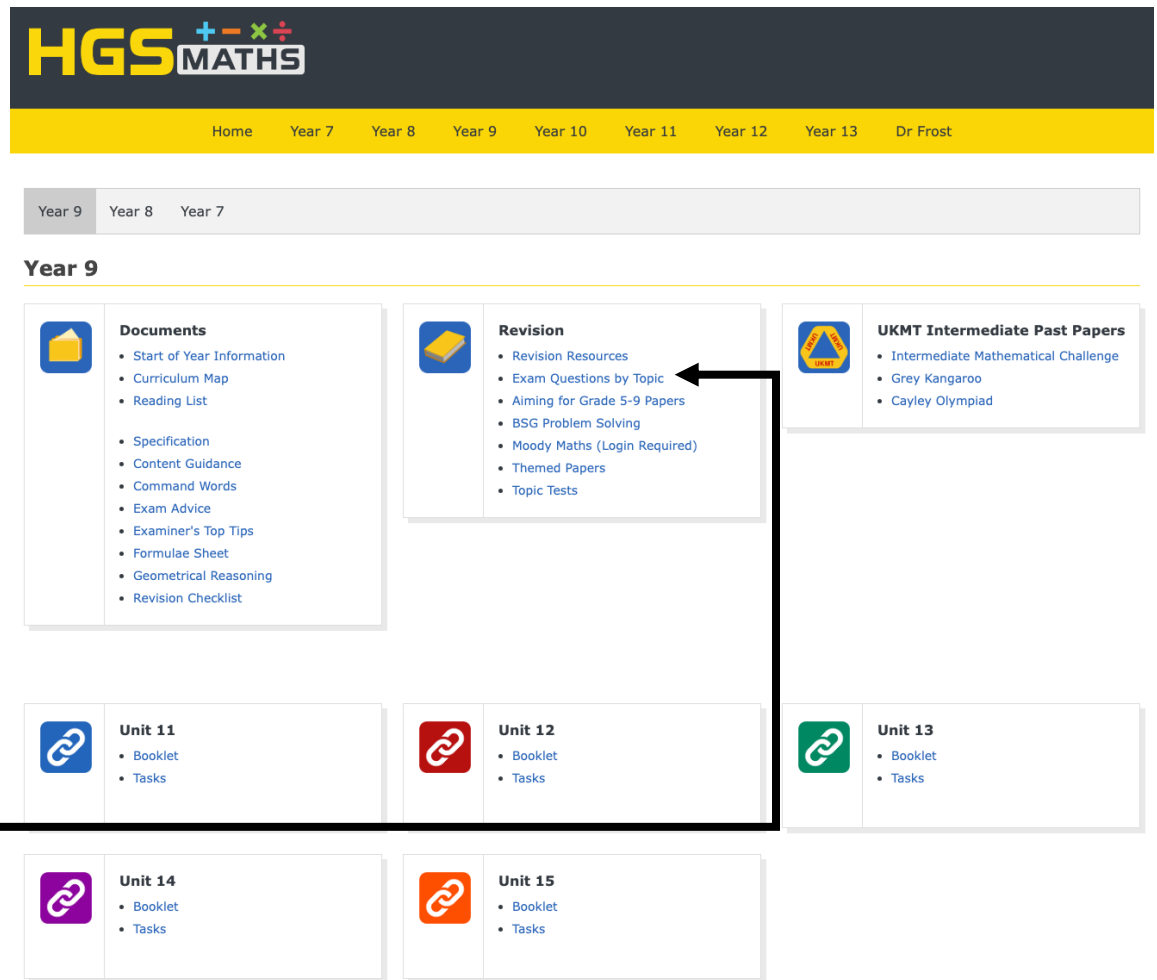
- The marks for **each** question are shown in brackets
- use this as a guide as to how much time to spend on each question.

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.
- Good luck with your examination.

Website

- You will find the **school's mathematics curriculum map, reading list, student and task booklets, and UKMT past papers** on the relevant page for your year group.
- On the Year 8 to Year 11 pages, you can access **blank copies of the previous year's booklets** by clicking the relevant year tab.
- The Year 9 to Year 11 pages also include the **GCSE specification, revision resources, and past paper questions**.
- The recommended resource for past paper questions is the following link. 



The screenshot displays the HGS MATHS website interface. At the top, the logo 'HGS MATHS' is visible, followed by a navigation bar with links for Home, Year 7, Year 8, Year 9, Year 10, Year 11, Year 12, Year 13, and Dr Frost. Below this, a secondary navigation bar shows 'Year 9' selected, with 'Year 8' and 'Year 7' also visible. The main content area is titled 'Year 9' and is organized into several columns of resource boxes:

- Documents:** Includes Start of Year Information, Curriculum Map, Reading List, Specification, Content Guidance, Command Words, Exam Advice, Examiner's Top Tips, Formulae Sheet, Geometrical Reasoning, and Revision Checklist.
- Revision:** Includes Revision Resources, Exam Questions by Topic, Aiming for Grade 5-9 Papers, BSG Problem Solving, Moody Maths (Login Required), Themed Papers, and Topic Tests. A black arrow points to this box from the text in the previous block.
- UKMT Intermediate Past Papers:** Includes Intermediate Mathematical Challenge, Grey Kangaroo, and Cayley Olympiad.
- Unit 11:** Includes Booklet and Tasks.
- Unit 12:** Includes Booklet and Tasks.
- Unit 13:** Includes Booklet and Tasks.
- Unit 14:** Includes Booklet and Tasks.
- Unit 15:** Includes Booklet and Tasks.

Dr Frost

- We have uploaded our curriculum to Dr Frost so you can easily complete independent work based on what you have covered in lessons.
- In each course, you can click into the unit and topic you want to practise, and complete key skills or exam-style questions.

The dashboard shows the user's profile as 'Demo Test Student' at 'King Edward VI Handsworth Grammar School for Boys'. It includes statistics for trophies (0/37), points (0), and mastery levels (0/0/0). The main section 'What to work on next?' features a 'Start a Practice' button and a 'Year 7' course card circled in red. Other sections include 'My Homework' (no tasks) and 'Resources'.

The page shows the 'Year 7' course overview with three units: Unit 1 (Factors, Multiples and Primes; Sets and Venn Diagrams; Negative Numbers), Unit 2 (Powers and Roots; Order of Operations; Introduction to Algebra), and Unit 3 (Fractions; Decimals; Solving Linear Equations 1).

The page displays 'Unit 1: Factors, Multiples and Primes' with a mastery level of 0/100. A 'Practise' button is visible. A table lists practice questions with their difficulty and recent accuracy.

| OR NARROW DOWN | VIDEO | DIFFICULTY | RECENT ACCURACY |
|---|---------|------------|-----------------|
| <input type="checkbox"/> 52: Exam Practice: Multiples of a number | Example | 1-4 | |
| <input type="checkbox"/> 52a: Identify multiples of a number from 1 to 12. | Example | 1 | |
| <input type="checkbox"/> 52c: Write the first 3 multiples of a number. | Example | 1 | |
| <input type="checkbox"/> 52d: Write all the multiples of a number in a range. | Example | 1 | |

Revision

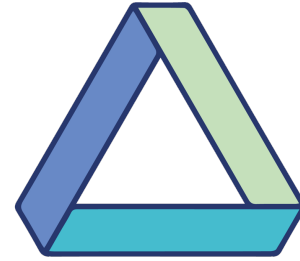
You remember what you practise, not just what you look at.

- **Don't just read notes** – practise questions regularly.
- **Use your booklets, Dr Frost, and past papers** to practise and test yourself.
- **Focus on topics you find hard**, not just favourites.
- Use your exercise book to write out full solutions and working.
- Mark your answers and learn from mistakes.
- Little and often is more effective than cramming.



Junior Maths Challenge – Wednesday 29 April 2026

- National mathematics competition organised by the UK Maths Trust – a charity promoting advanced maths problem solving in schools.
- Test yourself against the best students in the country.
- Think of it as football trials – but for maths.
- Summer schools, mentorship, nationally recognised certificates. Success isn't easy, but if you achieve it, it means a lot.
- There is everything to gain, and nothing to lose. There are rewards for students who do well – but if you don't, nothing bad happens.



UK Maths Trust



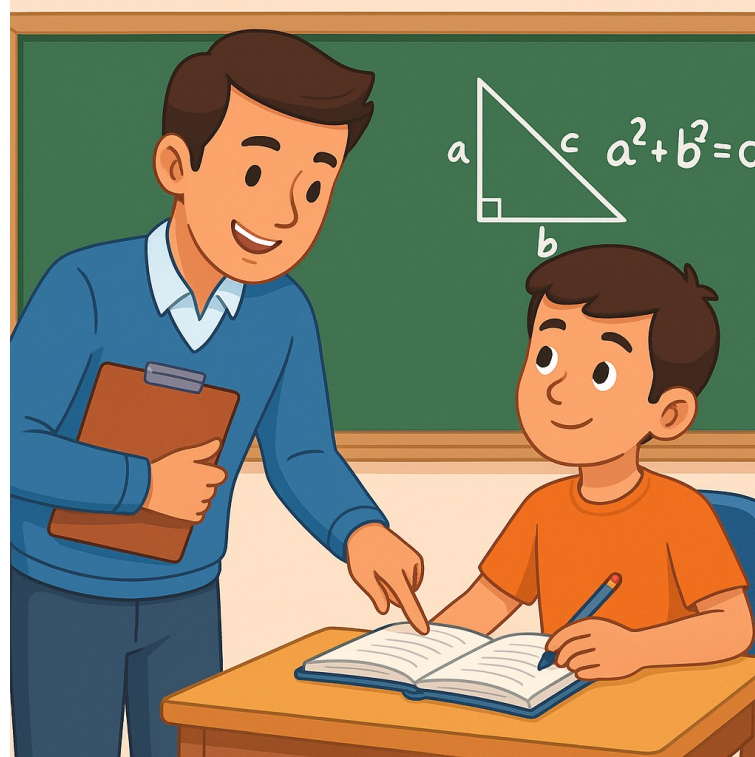
Junior Maths Challenge – Wednesday 29 April 2026

- Depth not breadth. Questions are based on problems that test how deep your knowledge is.
- Develop your ability to solve more complicated problems, like the ones in exams further up the school.
- **To practise, complete lots of past papers (you can find links on [hgsmaths.com](https://www.hgsmaths.com)).**
- **Weekly support sessions are available if you would like extra help.**



Support

- Your mathematics teacher is your first point of contact for any questions related to your mathematics learning.
- **You can speak to them in person before school, at break, lunch, or after school.**
- **You can also message them on Teams or send a polite email using your school account.**
- You can ask about **homework, something you didn't understand in class, or help before a test.**
- Don't expect an instant reply to emails or Teams messages. **It is best to ask in person, and well before your homework is due or a test is coming up.**



Maths Clinic

There are three **break time clubs** running for Mathematics. These will be on **Tuesday**.

ROOM 27 – Maths Challenge

- Weekly opportunity to work through questions
- Work with like-minded students in groups
- Attending regularly can lead to being chosen for trips and competitions

ROOM 28 – Dr Frost

- Dr Frost retrieval homework
- Past paper questions
- A quiet space to focus on maths or get extra practice.

ROOM 20 – Mentoring and Intervention

- A teacher and sixth form mentors to support you with any topics you need help with
- Support programmes to help students get back on track

Details will be confirmed on Microsoft Teams.

Motivation

This pyramid shows different reasons why you might do the right thing – like doing homework, behaving, or working hard.

- **To avoid demerits**
“I just don’t want to get into trouble.”
- **For praise & merits**
“I want a reward or recognition.”
- **To impress others**
“I want people to think I’m clever or hardworking.”
- **For a better future**
“This will help me later in life.”
- **It’s who I am**
“Doing the right thing reflects my values.”

The higher you go, the more your actions reflect your identity, not just rewards or pressure.



Success

You don't have to be the best – just be consistent and improve.

- Completing all homework, including retrieval.
- Asking for help when needed.
- Showing full working and using correct methods.
- Taking pride in presentation and effort.
- Supporting your classmates and using support sessions.

Take small steps every day – progress adds up.



$$(1.00)^{365} = 1.00$$

$$(1.01)^{365} = 37.7$$

Doing nothing at all
Vs.
Small consistent effort

What Is Next?

That's it! You're ready to start your Maths journey!

- You have the resources.
- You know the routines.
- You know how to get support.

Now it's all about effort, curiosity, and making the most of every lesson.

Quick Reminders

- Bring your equipment every day.
- Complete your homework on time.
- Ask questions — that's how you learn.

Aim for progress, not perfection.

We're here to help you succeed — and enjoy the process too.

Need help or stuck on something?

You can email your teacher or send a message on Teams.