

## Maths Extension Homework.

### Year 8:

Daily: <http://uk.ixl.com/math/>

Use the above link, find the section titled “Year 8 skills”, and click on “See all year 8 skills >>”.

Choose the topic you would like to work on, and complete 10 free questions.

You only get 10 free questions per day, if you would like more, then you have to subscribe.

If you are struggling with that topic, have a look at a lesson on MyMaths, ask your maths teacher for help, or see if you can find the topic in the Year 7 skills section and try those questions.

If you are comfortable and want to extend yourself on that topic, see if you can find it in the Year 9 skills section.

Half Termly: UKMT Junior Maths Challenge Paper

Ask Miss Barlow in room E3 for a copy of a past UK Maths Trust (UKMT) Junior Maths Challenge paper, and have a go at solving the problems. Return your solutions to Miss Barlow to get them marked and see how you have done.

UKMT is a company that runs individual and team challenges in maths. The UKMT Individual Maths Challenges are lively, intriguing multiple choice question papers, which are designed to stimulate interest in maths in large numbers of pupils. The three levels cover the secondary school range 11-18 and together they attract over 600,000 entries from over 4,000 schools and colleges. You can find more information here: <https://www.ukmt.org.uk/>

Termly: Research Project – The History of Maths

Research the history of maths across the globe – there is a display board as you walk into the maths department to give you some guidance. You could chose a different focus each term – one term you could look at female mathematicians, another term you could look at how maths was used during the World Wars.

To get you started, here is a list of mathematicians throughout the ages (not all of them though!)  
Thales, Pythagoras, Euclid, Archimedes, Hypatia, Zu Chongzhi, Zu Genge, Leonardo Pisano, Fermat, Pascal, Jacob Bernoulli, Johann Bernoulli, Euler, Sophie Germain, David Hilbert, Emmy Noether, Ada Lovelace, Srinivasa Ramanujan, Alan Turing, Benoit Mandelbrot, Sir Andrew Wiles.

You could also explore how other countries have contributed to maths – for example where was the number zero first invented? Think about Egypt, Ancient Greece, China, India and Europe.

Some questions to get you thinking:

What do you think were the most important mathematical discoveries?

What happened to mathematics during the World Wars?

Was maths used in the stone ages?

How is maths and mathematicians seen in the modern day film industry?

Hand your finished project in to your maths teacher at the end of the term.