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Year 11 Preparing for the Next Phase

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This booklet gives some advice on how students in Year 11 can prepare for the next phase in their education or employment during the school closures as a result of the Corona Virus.

Mathematics

Preparing for…

P3	Entry Level Certificate
P4	GCSE
P5	Functional Skills
P6	Core Skills
P7	T Levels
P8	AS/A Levels

Y11 Preparation for Continued Study of Mathematics

Mathematics

Continued study of mathematics beyond Y11 can include any of the following courses:

- Entry Level Certificate
- GCSE
- Functional Skills
- Core Mathematics
- T Levels
- AS/A Level

For more information on how to prepare for your chosen pathway, please select your next step qualification.

No matter what your future pathway holds, you will need to keep your brain active, until you start your new course. The following links may be of interest:

From Nrich
- Short Problems: https://nrich.maths.org/11993
- Games: https://nrich.maths.org/9465
- Activities/ challenges: https://wild.maths.org/

From BBC Puzzle for Today:
https://www.bbc.co.uk/programmes/articles/w9qwf7cQ01vBHCSwHK7mp/the-today-quiz

Games like chess, Sudoku, Connect 4, Noughts and crosses etc. if you and your opponent are equally matched or your opponent is better than you.

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<u>Entry Level Certificate</u>

- A gateway qualification to GCSE mathematics
- Can be studied at Entry level 1, 2 or 3.

How to prepare for GCSE at college:

This qualification covers all the basics in mathematics ready to progress towards GCSE.

Content includes:

- basic number skills such as addition, subtraction, multiplication and division
- time
- measures
- fractions, decimals percentages.

Any work your teachers have sent home will help prepare for this qualification.

Do 20 – 30 minutes of maths every day to keep skills fresh.

Practice answering questions and using written methods of calculation.

Each week, test yourself on key facts like multiplication tables, conversions between mm and cm etc.

If you want to take it further, have a look at the specifications below. You can also get some practice questions through links from these webpages.

AQA Entry Level Certificate Specification

OCR Entry Level Certificate Specification

Pearson Edexcel Entry Level Certificate Specification

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GCSE Mathematics

- if you do not have a GCSE in mathematics and want/ need one
- if you have a GCSE but need a grade 4 or higher

How to prepare for GCSE at college

Use the revision resources provided by your school to keep your maths skills 'fresh'.

Do a little each day- say 20 to 30 minutes?

Use online resources your teachers have suggested or The Khan Academy, to get explanations of things you don't understand.

Make sure you do practice questions, and that you do try to do some of the things you aren't so good at.

Taking it a step further

Although content and skills are the same for all the exam boards, the way they arrange the examination papers and ask the questions can be a little different.

If you know what exam board you will be using at college, download their GCSE specification from the internet and use it as a checklist for skills and content you need.

[AQA GCSE Specification](#)

[OCR GCSE Specification](#)

[Pearson Edexcel GCSE Specification](#)

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Functional Skills

- You may take a functional skills qualification in mathematics if beginning an apprenticeship.
- You can study as an entry-level qualification or as a level 1 or level 2 qualification.

How to prepare for Functional Skills at college or through work:

Use the revision resources provided by your school to keep all your maths skills 'fresh'.

Functional skills use all the basic maths skills, but in real life contexts.

Practice the maths skills you need for your apprenticeship.

Taking it a step further

If you know which exam board your course/ apprenticeship uses, download the specification and use it as a checklist of knowledge and skills,

AQA Functional Skills Maths Specification

OCR Functional Skills Maths Specification

Pearson Edexcel Functional Skills Maths Specification

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Core Mathematics

- if you have a mathematics GCSE at grade 4 plus then you may study this Level 3 maths qualifications, usually taken alongside A levels or other qualifications, to help develop mathematical skills and thinking after GCSEs. Particularly useful for preparation for the quantitative skills needed for many degree courses, particularly subjects such as psychology, business-related courses, sports and social sciences, and natural science courses that do not require AS/A Mathematics.

All Core Maths qualifications include:

- interpreting solutions in the context of the problem
- understanding sources of error and bias when problem-solving
- working with data
- understanding risk and probability
- understanding variation in statistics
- using exponential functions to model growth and decay.

Most Core Maths qualifications also include:

- percentage change
- interpretation of graphs
- financial maths
- using standard units
- Fermi estimation
- the Normal distribution
- correlation, knowing it does not imply causation
- making and evaluating assumptions when modelling or problem solving

Taking it a little further

You can find out more information about the qualification you will take by downloading the appropriate specification.

- [AQA Level 3 Certificate Mathematical Studies](#)

- [City & Guilds Level 3 Certificate in Using and Applying Mathematics](#)

- [NCFE Level 3 Certificate in Mathematics for Everyday Life](#)

- [Pearson Edexcel Level 3 Certificate in Mathematics in Context](#)

- [OCR Level 3 Certificate in Core Maths A (MEI)](#)

- [OCR Level 3 Certificate in Core Maths B (MEI)](#)

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T levels

- A new range of qualifications that give you specialist technical knowledge and skills and are recognised as leading to specific job roles.
- They are a vocational equivalent to studying A level and are a 2-year course.
- You need grade 4 or better at maths GCSE to follow a T level pathway.
- There is a mathematics element as part of some pathways, depending on target job.

The mathematical content to the three elements above will be taught and assessed in the occupational context. Ten General Mathematical Competences (GMCs) have been specified to cover the mathematics required for the full range of courses. These are listed below. From these, each T level will include the GMCs relevant to that industry.

- Measuring with precision
- Estimating, calculating and error spotting
- Working with proportion
- Using rules and formulae
- Processing data
- Understanding data and risk
- Interpreting and representing with mathematical diagrams
- Communicating using mathematics
- Costing a project
- Optimising work processes.

The mathematical components are assessed as part of the general assessment not as a separate examination.

How to prepare for T levels

Keep your maths skills fresh using the work provided by your school.
Take a 'little and often' approach- 20 to 30 minutes each day.
Especially focus on the skills and knowledge that link in with the GMCs mentioned above.

Try answering puzzles and problems each week- this will help with keeping your maths brain active and with preparing for problem solving.

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Y11 Preparation for Continued Study of Mathematics

Mathematics

AS or A level

- the next level of study after GCSE
- often following a grade 6 or higher at GCSE

How to prepare for AS or A level

Make sure you keep your maths skills and knowledge fresh using any of the revision work or past papers your teachers provided.

Use websites recommended by your teachers, or like the Khan Academy remind yourself about any topics you have found tricky or can't remember.

If you are feeling confident with the work covered at GCSE, why not watch some tutorials on Pre-calculus on the Khan Academy - it will help prepare you for the calculus component of A level.

You could also try contacting your college for a suggested reading list.

The important thing is to keep your brain 'mathematically' active.

Puzzles, challenges and problem solving are all great for this.

Taking it a little further- you can find out more information about the qualification you will take by downloading the appropriate specification. You can use this alongside online tutorials to give you a head start on your course.

AQA AS and A Level specifications

OCR AS and A Level Specifications

- Mathematics A H230, H240
- Mathematics A, Further H235, H245
- Mathematics B (MEI) H630, H640
- Mathematics B (MEI), Further H635, H645

Pearson Edexcel AS and A Level Specifications

Khan Academy- is free to students and the tutorials have some explanation of why, not just a method, so it can be really helpful.

For further information please contact Helen Monaghan helen.monaghan@lancashire.gov.uk

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