

A level Maths & Further Maths Induction Work: Phase 2

Welcome to the second phase of the Hardenhuish A level Maths and Further Maths induction work. The topics for this phase are listed below. These topics should all be familiar but there will be some interesting approaches and applications that you might not have seen before. Please work through each topic section listed, you will need a paper and pen to write down your working.

If there are any topics you would like a reminder on then a MyMaths location is given www.mymaths.co.uk Please email [Mrs Cobb](mailto:MrsCobb) if you need the login and password.

Maths Students

You should complete the essential **skills checks** and spend time doing the **practice** and **explore** questions, we suggest a minimum of 45 minutes for each section. Although additional time may be spent to complete all the tasks if you wish. Once complete, please work through the online check in quiz (details below).

Further Maths Students

Further Mathematicians should complete all of the tasks within each section and also explore the *Still Want More* activities, spending around 90 minutes on each section. Once complete, please work through the online check in quiz (details below).

Topic Sections:

- Factorising https://amsp.org.uk/uploads/files/Factorising1_v1_2.pdf
(MyMaths – Algebra, Algebraic Manipulation, Factorising 1)
- Further factorising https://amsp.org.uk/uploads/files/Factorising_2v2_6.pdf
(MyMaths – Algebra, Algebraic Manipulation, Factorising 2)
- Completing the square https://amsp.org.uk/uploads/files/Factorising3v1_2.pdf
(MyMaths – Algebra, Equations - quadratic, Completing the square)
- Rearranging https://amsp.org.uk/uploads/files/Rearranging1v1_1.pdf
(MyMaths – Algebra, Expressions and formulae, Rearranging 1)
- Rearranging & factorising https://amsp.org.uk/uploads/files/RearrangingFactorisingv1_1.pdf
(MyMaths – Algebra, Expressions and formulae, Rearranging 2)
- Rearranging & fractions https://amsp.org.uk/uploads/files/RearrangingFractionsv1_4.pdf
(MyMaths – Algebra, Expressions and formulae, Rearranging 2)

After working through the sections above please complete the short online check in quiz, linked below, by **Wednesday 14th July**.

<https://forms.office.com/Pages/ResponsePage.aspx?id=ALV0CGtJAKCS-T05uDMt-q9hj1h1AxdIo539Q2A2teFUNjFMWEdJTkVKN0NjNUM2RDMwMFFNNEE4Ty4u>

Calculators

You will require a Casio FX-991EX Advanced Scientific Calculator (<https://education.casio.co.uk/products/991EX>) in September. These are available from our Resource Centre in school at a cost of £22.70. Alternatively, you may wish to source one online before then.

Suggested reading and mathematical apps/games

Please note that these are not compulsory, but if you are planning to study A level maths it is reasonable to assume you are interested in the subject!

- Sumaze – maths puzzle game, free Windows/Apple app
- Why Do Buses Come In Threes? (Rob Eastaway and Jeremy Wyndham)
- Humble Pi: A Comedy of Maths Errors (Matt Parker)
- The Num8er My5teries (Marcus du Sautoy)
- How Not To Be Wrong (Jordan Ellenberg)

If you read any of the books above, or any of the other excellent mathematical books available, we'd love to hear your thoughts (or recommendations) in September!

If you have completed all the work listed above and are still keen for more to prepare for next year then you may wish to explore the online Year 11 to 12 transition course from the AMSP. This is optional and students can sign themselves up using the link here https://2017.integralmaths.org/management/self_reg_students.php

If you have any questions, or need the login for MyMaths, please email...

Mrs Cobb – rxo@hardenhuish.wilts.sch.uk or Mr Cobb - pxc@hardenhuish.wilts.sch.uk
Lead Teachers for Key Stage 5 Mathematics