Teaching Primary Mathematics

It is important that you refresh your mathematical subject knowledge prior to the course. For some of you it may have been a considerable time since you engaged with the wider mathematics. These materials are intended to support you in your preparations, in a period where there are likely to be less demands on your time than during the course, and to provide you with options which will help you meet your individual needs. The aim is for you to develop a deep understanding of fundamental mathematical ideas and ways in which these can be communicated and shared with children.

Recommended reading

The recommended texts for the primary mathematics course are:


Please select the source/s most appropriate to your needs.

Essential tasks

1. Developing your Maths Subject Knowledge for Teaching

You should evidence your developing depth of maths subject knowledge over the course of your training year.
You are recommended to gather together in one folder all your pre-course maths preparation. All the essential tasks listed here should be included, as well as any additional preparation you undertake, such as reflection on any reading you do, any notes you take, worked examples etc.
The demands of the course mean that the time you have for this sort of study becomes greatly reduced after the course begins, so it is in your best interests to ensure you have completed as much preparation as possible before then.

2. Addressing areas of relative weakness identified at interview

Your interview feedback letter will specify the particular areas of maths you need to focus on. These based on analysis of the mathematics task you completed at interview, and relate to questions you answered incorrectly.

For example, a feedback letter showing:

Place value (decimals). e.g. Haylock pgs. 222-241, 'Decimal numbers and Rounding' or in Rickard pgs. 12-30, 'Counting and the number system' etc.

will be as the result of an incorrect answer to question 6 of the interview maths task, i.e. \( 5.5 + 7 + 8.65 = ? \)

It is suggested that you identify the appropriate chapter in your chosen text, which could be the 'Decimal numbers and Rounding' chapter in the Haylock text, the relevant section of the 'Counting and the number system’ chapter in the Rickard text, or another maths text of your own choosing.

You should produce paper-based evidence of your engagement with each area when you start the course. This should clearly demonstrate what you have done to develop your understanding, for example, handwritten or typed notes, diagrams, key information and the workings for answering the practice questions.
We strongly suggest that you read the specified pages carefully, taking notes on the key ideas and terminology (referring to the glossary at the end of each chapter as needed).
Drawing diagrams to represent the concepts often helps, so you might like to record classroom-friendly examples. Submitting examples of practice questions alone is not sufficient as it doesn’t adequately demonstrate your engagement with the underlying concepts.

If, as a result of your self-assessment, you feel further work is needed, you could consider developing your mathematics knowledge further by:

- Visiting a relevant section of the BBC Bitesize website for KS1, KS2, or possibly KS3.
- Visiting the NCETM website (see below).
- Further independent research.

3. Complete the 2017 Maths SATs papers.

Completing the sort of assessments previously used in schools will be valuable in informing you of the expectations placed on pupils in maths towards the end of the primary phase.

- Visit [www.satspapers.org/ks2maths2016onwards.htm](http://www.satspapers.org/ks2maths2016onwards.htm)
- Spend time working on the whole range of 2017 maths test papers (one arithmetic and two reasoning). 
- Consult the relevant mark schemes to check your understanding.
- Identify and complete further study in areas where your knowledge is less secure.


Having secure subject knowledge relating to the current primary Mathematics curriculum is vital and it is important that you begin to develop this. In order to familiarise yourself with the National Curriculum you should access the National Centre for Excellence in the Teaching of Mathematics website and follow the following steps:

2. Register by clicking on [Sign in / Register](http://www.ncetm.org.uk) (near the top). There is no charge.

   List the sector you work in as ‘Initial Teacher Education’, your main role as ‘Trainee teacher’, your main region as ‘East Midlands’ and tick the ‘I do not work in a state maintained school’ box. Log in.

3. From the Home page click on this link to the National Curriculum section:

4. Click on this ‘National Curriculum Resource Tool’ link: (near top on the right hand side of the screen).

5. Select coloured box/es in a relevant year group and area of study, then on to access links to **Subject Knowledge**, Making Connections, Articles, Activities, Exemplification and **Videos**. Reflect on the areas of Mathematics, which you found most challenging or those which may be a source of interest to you, in order to start your initial exploration of the website.

Please keep a record of your NCETM username and password, as you will find the website invaluable in supporting the planning and teaching of maths over your training year.
Additional tasks

Additional reading

Other books you may find useful at this stage are:

Witt, M., (2014) Primary Mathematics for Trainee Teachers

Mooney, C., Hansen, A. et al (2014), Primary Mathematics: Knowledge and Understanding

If you feel you need a range of examples to use in conjunction with the core text, the following book will prove helpful:


Useful School websites

You will find further useful materials at the following school websites:

- Coxhoe Primary School
- Woodlands Primary Maths Zone