

Parent Teaching Support Manual

Textbooks and Workbooks

Maths — No Problem! is a textbook and workbook maths mastery programme following the 2014 English National Curriculum. Both books are to be used by the pupils, the textbooks are for reference, but the workbooks can be written in, whereas all online content is for the adults. The online Parent Guides show both the MNP textbooks and workbooks pages and are there to be used at home with your child.

We have organised the books so content for the first half of the year, relating to number and the operations, can be found in the A books and content for the second half of the year, mainly applied maths including topics like geometry and measures, can be found in the B books. The programme follows a spiral approach, which means each time a topic is revisited we build on prior knowledge by linking new ideas and looking at the concepts in more depth. Each year group is organised in this way meaning that children revisit topics throughout their primary education and always building on the knowledge that they have already learnt.

Each chapter in the textbooks are split into lessons, and these lessons represent one lesson in the classroom. The lessons also have a corresponding worksheet in the workbooks.

Lesson Structure

The lesson is split into six sections, each relating to a different part of the textbook or workbook. Each part of the lesson could take roughly 10 minutes, making up a full hour, but this could change depending on the individual teacher or parent. When following a lesson at home you could use these timings as guidance but feel free to spend longer or shorter on a particular section.

In Focus

The In Focus is the problem that the whole lesson is centred around, it can be found in the textbooks at the beginning of every lesson. Start by reading through the problem with your child, encouraging them to read it aloud for themselves. At this point in the classroom, the children would explore the problem for themselves in groups, but independent of the teacher. At home, encourage pupils to lead the investigation by asking open questions.

What is the problem asking you to do?

What do you already know to help you solve this problem?

Could you use any resources to help you?

Could you draw a picture to help you?

What methods could you use to solve this problem?

How many different methods could you use?

Let's Learn

After working through the problem together, read through the Let's Learn section of the lesson (also found in the textbook). In lots of lessons you will find multiple methods for solving the original problem presented to you in the In Focus. If you are struggling to explain the solution, it is best to stick to one of these methods as they have been structured to follow on from what the children have previously learnt.

It is important to talk through this section of the textbook and get familiar with the mathematical language used. The characters are there to help you: either to guide learning, expose misconceptions, prompt discussions or encourage learners to justify their reasoning. It is important for learners to compare different methods, evaluating each one and validating their own discoveries, as well as learning how to present their ideas effectively.

Activity Time

Activity Time is normally some form of game or investigation that can be found in the textbook but not in all lessons. Work through the instructions together, this may include creating some of the resources needed for the activity beforehand. The activities have been included to help learners explore the mathematical concepts further.

Guided Practice

At the end of each lesson in the textbook, there are a handful of problems that link to the original lesson problem. In class, these problems are assigned for learners to complete in pairs or groups, so at home try and work through these problems together using the methods learnt in the lesson. Again, try to let your child lead the calculations, this could involve pausing for a bit and allowing them to think over what they have learnt. If they are working quite confidently through the questions ask them to explain to you what they are doing and why they are doing it. If you need them, the answers to the problems can be found on the Parent Guide.

Worksheets

Each lesson in the textbook has a corresponding worksheet in the workbook. This is again for the children to practice what they have learnt, but this time it should be independent work. Leave them to work through these problems by themselves, if they appear to be struggling, don't rush to give them the answers as this is not always a bad thing. Children are resourceful and have been taught to be problem solvers, struggling allows them to push their understanding of the concepts and learn to manipulate the mathematics. Again, the answers to the worksheets can also be found on the Parent Guide.

Journal

In a MNP lesson, learners are encouraged to journal regularly about their discoveries. If each child's journal is completely personal it is an excellent tool to assess their understanding. There is an example journal question at the end of each chapter in the textbooks, but journaling is something that could be completed at the end of each lesson. Here are some example journal entries that can be adapted to many different types of lessons.

1. Write a set of instructions for your friend explaining how you solved today's problem.
2. Write down two or three different methods to solve today's problem. Why did you choose these methods? In your opinion, which method is the best and why?
3. Pick a calculation from the Guided Practice section of the lesson and write a story for what the numbers mean.
4. If you completed a calculation in the lesson, highlight some of the steps for the calculation and write down what is happening in each of the highlighted steps.

What if my child is struggling?

Start by asking the learner what they already know that could help them with this problem and also what they don't understand with this problem. This could lead to you being able to build on what they already know, this is called scaffolding, or that they have a misunderstanding holding them back. Always encourage them to use resources (any objects they can think of to bring the problem to life) or draw a picture to help them understand the problem, both of these things they will be familiar with from class. Finally, ask them if they can think of another method for solving the problem, one that they might have seen in a previous lesson. This is always applicable due to the spiral nature of the programme.

What if my child needs more challenge?

It is important for all learners to be able to justify their reasoning, explaining what they are doing and why they are doing it. So with advanced learners ensure that you are always questioning them, whether or not they got the answer right. Ask them to explain the calculations back to you as if they are the teacher and you are the pupil. Sometimes you could ask them to come up with their own problems that are similar to the ones they have seen in the lesson. This means they have to truly understand what the lesson objective was for that day. If more questions are needed, we suggest using the MNP Mathsteaser books for Years 4 and above.

If you have any further questions or are struggling to teach your child maths at home please get in contact with the school first or email MNP at hello@mathsnoproblem.co.uk.