


Maths No Problem: A Mastery Approach

Lesson Structure

Exploration

Explore

The population of Lithuania is 2713 406.
What are the different ways we can show this number using place value?




Explore -


The teacher will present the whole class with a problem to explore which will be the central focus of the whole lesson. During this part of the lesson, learners will be working with their mastery pair exploring the task themselves, however they see fit, whether this is with concrete resources, modelling or different strategies etc. After teachers have presented the problem their role is observation and assessment. They are giving their class independence to experiment.

Master

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Method 1
Use place-value counters to show 2713 406.



How many  make 1 000 000?

Master (Structured Discussion) -

This part of the lesson is a teacher-led whole class discussion. The aim is to use targeted questions to draw out different methods to discuss and any misconceptions to rectify. The **Master** section of the book can provide some anticipated methods for solving the problem. The questioning will be based on: 'What are you doing in this strategy to solve the problem and why are you doing it?' Rather than provide mechanical repetition, the examples are designed to **deepen pupils' understanding** and **reveal misconceptions**.

Guided Practice

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The table shows the approximate population of some countries.

	Great Britain	Germany	Spain	France
Population (approximate)	62 000 000	82 000 000	65 000 000	64 000 000
Population (words)	Sixty-two million	Eighty-two million	Sixty-five million	Sixty-four million

Complete the table.

1. In 62 000 000, the digit 2 is in the place and its value is .

2. In 65 000 000, the digit 5 is in the place and its value is .

Practice 1: Guided Practice -

An opportunity for children to work through strategies learnt in the previous parts of the lesson with support from their peers where needed. The work is recorded in their Maths Jotter.


This will be reviewed, often through self-marking, prior to children completing their workbook. Opportunities for the teacher to address misconceptions can be provided in this section or the teacher or teaching assistant may be leading a guided group.


Workbook


Worksheet 1

Reading and Writing Numbers to 10 Million

Write the numbers shown in numerals and in words.

(a) 

(b) 

(c) 

Put in the missing.

(d) 8400320 = + 400000 + + 30

(e) 6200870 = + + 80000 + 700

Challenge

Circle two different numbers which multiply together to make 1 million.

10 100 1000 10 000 100 000

Put a digit in the missing space below to make the sentence correct.

4,62_645 < 4,623,64_

Is there more than one option?
Can you find them all?

Practice 2: Workbook -

When ready, children work independently in workbooks. **Tasks** and activities are designed to be easy for pupils to enter while still containing **challenging** components. questions have been designed with variation in mind, so learners can develop a deeper understanding of the topic as they work through the exercises.

Challenge -

Challenges will fit the LO and will allow children to apply their understanding. Two challenges will be available - the first will be one that all children can access - this will allow all learners to apply their understanding to a different context. The second challenge be a richer problem that is designed to stretch where children will have to apply their reasoning skills.

Jotters - Opportunities for children to record their work at an age appropriate level is built upon as they move through the school Jotters are used as a free space where children can **explore and develop** their understanding at various levels.