



# Maths



Be prepared to divide and conquer! Keep it real!

To create confident Mathematicians who can use and understand a variety of efficient strategies to solve Maths problems in real life situations.

## Fluency at Pear Tree



Fluency		
1. $4 \times 1 =$	1. $32 \div 8 =$	1. $+ 7 = 4$
2. $4 \times 2 =$	2. $21 \div 3 =$	2. $33 + = 11$
3. $4 \times 3 =$	3. $8 \times 8 =$	3. $6 \times = 42$
4. $4 \times 4 =$	4. $15 \div 3 =$	4. $+ 1 = 8$
5. $4 \times 5 =$	5. $9 \times 10 =$	5. $11 \times = 132$
6. $4 \times 6 =$	6. $10 \times 3 =$	6. $5 \times = 30$
7. $4 \times 7 =$	7. $24 \div 6 =$	7. $+ 2 = 10$
8. $4 \times 8 =$	8. $4 \times 8 =$	8. $12 \times = 72$
9. $4 \times 9 =$	9. $11 \times 8 =$	9. $\times 9 = 54$
10. $4 \times 10 =$	10. $60 \div 12 =$	10. $28 + = 7$
11. $4 \times 11 =$	11. $7 \times 12 =$	11. $3 \times = 36$
12. $4 \times 12 =$	12. $45 \div 9 =$	12. $123 \times 0 =$

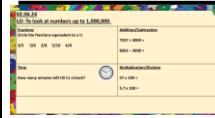
Fluency practice daily

## Arithmetic at Pear Tree

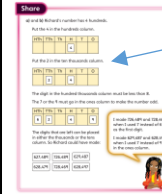


We will have a weekly Maths lesson dedicated to arithmetic practice to ensure our arithmetic scores remain strong despite a greater focus on reasoning in other lessons. Use this time to focus on any gaps or pre-teaching also. Go through the paper with the children.

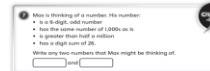
## Lesson Structure:



Retrieval quiz – last lesson, last week, last term, last year.



Share - Here is your opportunity to **model** to the children how to work out the problem and the steps for your method.



Challenges are available on Think Together and Practice

Our lessons follow the Power Maths structure, providing our children with more opportunities to apply their learning to problems and reasoning questions.

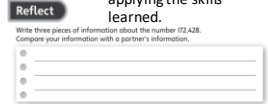
Key vocabulary highlighted in this unit:  
 ten thousands (10,000s)  
 hundred thousands (100,000s)  
 millions (1,000,000s)  
 ten million (10,000,000)  
 place value  
 partition  
 estimate  
 compare  
 order  
 rounding  
 negative  
 positive



Discover - Let the children explore the problem first in pairs/groups. Then use with Share to model.

Think together - I do, we do, you do (similar to PQ, children begin to use the skill themselves)

Practice - Independent Practice, applying the skills learned.



Reflect - Use as a plenary and opportunity for Oracy.

## Medium Term Plan

### Unit 1. Place value within 10,000,000 (8 Lessons)

<b>Number</b> - number and place value	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
<b>Number</b> - number and place value	round any whole number to a required degree of accuracy
<b>Number</b> - number and place value	use negative numbers in context, and calculate intervals across zero
<b>Number</b> - number and place value	solve number and practical problems that involve all of the above

### Unit 2. Four operations (1) (8 Lessons)

<b>Number</b> - multiplication and division	recognise and use square numbers and cube numbers, and the notation for squared ( $^2$ ) and cubed ( $^3$ )
<b>Number</b> - addition, subtraction, multiplication and division	identify common factors, common multiples and prime numbers
<b>Number</b> - addition, subtraction, multiplication and division	use their knowledge of the order of operations to carry out calculations involving the four operations
<b>Number</b> - addition, subtraction, multiplication and division	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

Power Maths

- 1) Numbers to 1,000,000
- 2) Numbers to 10,000,000
- 3) Partition numbers to 10,000,000
- 4) Powers of 10

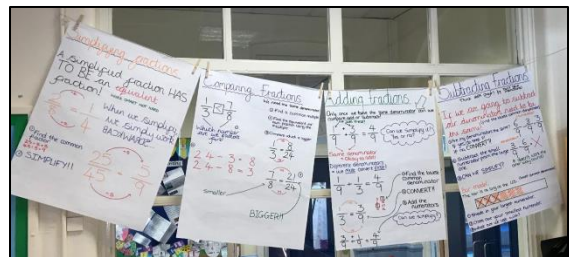
1 x Arithmetic Ninjas every week

- 1) Comparing numbers to 10,000,000 on a number line
- 2) Compare and order numbers
- 3) Rounding numbers
- 4) Negative numbers

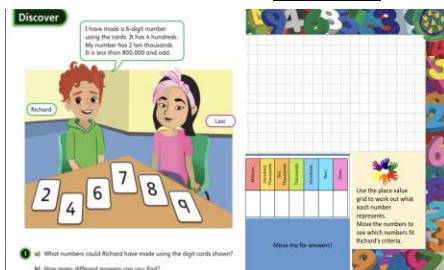
- 1 x Arithmetic, End of unit check
- Ninjas every week
- x5

i:1 document example

## What does it look like in classrooms?



## What does it look like in on slides



If using iPads, have an area on the slide to work out and write answers. Helping Hands still need to be used to show 'Steps to Success' for methods. Star challenges can still be used to stretch learning.

## What does it look like in books/on iPads

-Place Value and 4 Operations should be in books so children learn the correct ways to set them out.

-Other topics can be done in books/on iPads (provided it is beneficial to do so).

-Arithmetic should always be done in books.