

## Maths in Stage 3

For the first few weeks in Stage 3, maths has been all about place value. Along with deepening our understanding about numbers, Stage 3 students are involved in the following activities daily -

- 10-15 minutes of quick number facts - usually in a game involving dice
- Mentals
- Strategy practise - revising previous number strategies
- Main focus lesson

Year 5 and 6

We have been discovering numbers on the multiplicative place value chart. Students are taught that as a column in the place value chart is added, they are making their numbers "10 times bigger". They are investigating whole numbers and fractions. Year 5 are discovering numbers to hundredths by multiplying and dividing by 10, 100 and 1000. Year 6 are investigating numbers larger than one million.

Below are some investigations that your child has taken part in. If you have any questions, please see your classroom teacher.

Stage 3 Teachers

**Investigation and Reflection**

Children record a multiplicative place value chart to hundredths, demonstrating multiplication and division by 10 and 100, and explain it to their friend. Doing this often will deepen understanding. Children select cards to make numbers to multiply and divide by 100 using multiplicative place value. They record the original number in a place value chart. They multiply or divide the number by moving the digits 2 places to the right or left. They record the new number. They read their original and new number to a friend.

In pairs, children discuss, then record a response to the question: How can we multiply and divide by 100 using multiplicative place value? (Investigation instructions and Reflection for students appear here, on the Explicit Teaching Video, on the Explicit Teaching PowerPoint, and on the Investigation PDF.)

**Problem Solving**

What number is missing from this place value chart?

(100)

(Differentiable problems for students appear here, on the Explicit Teaching PowerPoint, on the Investigation PDF, on the Problem Solving PDF, and in 3 levels on the Problem Solving PowerPoint.)

**Investigation and Reflection**

Children record a multiplicative place value chart to numbers of any size and explain it to their friend. Doing this often will deepen understanding.

In pairs, children discuss, then record a response to the question: How does grouping digits in 3s help us to read large numbers? (Investigation instructions and Reflection for students appear here, on the Explicit Teaching Video, on the Explicit Teaching PowerPoint, and on the Investigation PDF.)

**Problem Solving**

Alan recorded this place value chart.

billions			millions			thousands			ones	tenths	hundredths	thousandths		
100	10	1	100	10	1	100	10	1	100	10	1	1	10	100

What is the value of the column to the left of the 100 billions column? Why? (1 trillion. Because ones, tens and hundreds of trillions come after ones, tens and hundreds of billions)

What is the value of the column to the right of the 100 thousandths column? Why? (1 millionth. Because ones, tens and hundreds of millionths come after ones, tens and hundreds of thousandths)

(Differentiable problems for students appear here, on the Explicit Teaching PowerPoint, on the Investigation PDF, on the Problem Solving PDF, and in 3 levels on the Problem Solving PowerPoint.)