

Master The Place Value of 7-Digit Numbers

Rationale

In this step, pupils will build on their understanding from Year 5 and recognise the place value of each digit in 7-digit numbers. They will use a Gattegno chart to look at the number as a whole and explain the value of the digits in all columns, recognising that columns with the digit '0' do not need to be described. Pupils will continue to use the same representation to look at the individual digits of given numbers and explain the value of a single digit in its place.

Pupils' learning will be developed with representations of given numbers in place value charts, applying their knowledge to recognise the value of specific digits abstractly.



Key Stem Sentences

- ___ has ___ millions / hundred thousands / ten thousands / thousands / hundreds / tens / ones.
- ___ has ___ s. The value of the digit ___ is ___
- In ___, the value of the digit ___ is ___



Key Vocabulary

- ones / tens / hundreds / thousands / ten thousands / hundred thousands / millions
- digit / place holder
- place
- value



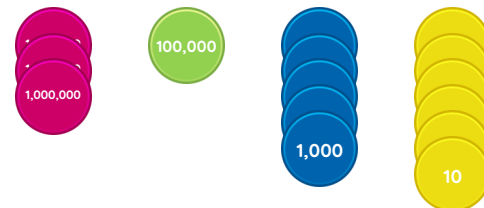
Common Errors or Misconceptions

- Pupils may misinterpret the value of a digit in its place. For example, in 2,658,901, the value of the digit 2 is 200,000
- Pupils may not recognise zero as a place holder.



Key Representations

Place Value Counters



3,105,060 has 3 millions, 1 hundred thousand, 5 thousands and 6 tens.

Place Value Charts with Digits

1,000,000s	100,000s	10,000s	1,000s	100s	10s	1s
4	7	2	6	0	5	9

In 4,726,059, the value of the digit 5 is 50

Gattegno Charts

1,000,000	2,000,000	3,000,000	4,000,000	5,000,000	6,000,000	7,000,000	8,000,000	9,000,000
100,000	200,000	300,000	400,000	500,000	600,000	700,000	800,000	900,000
10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9

5,301,684 has 5 millions, 3 hundred thousands, 1 thousand, 6 hundreds, 8 tens and 4 ones.

The value of the digit 3 is 300,000



Pupils will FLOURISH if they can...

- describe the place value of each digit in a 7-digit number.
- recognise zero as a place holder.
- identify the value of a single digit in its place.
- explain their understanding in multiple ways using their own words and representations.

