

Master Powers of 10 More and Less (5 and 6 digits)

Rationale

In this step, pupils will build on their understanding of finding 1, 10, 100 and 1,000 more and less than a given number in Year 4 by finding 1, 10, 100, 1,000, 10,000 and 100,000 more and less than a given number to and across 1,000,000

Pupils will be encouraged to work mentally, supported by pictorial representations.



Key Stem Sentences

- 1 / 10 / 100 / 1,000 / 10,000 / 100,000 more / less than ____ is ____
- ____ is 1 / 10 / 100 / 1,000 / 10,000 / 100,000 more / less than ____



Key Vocabulary

- one / ten / hundred / thousand / ten thousand / hundred thousand
- more than
- less than



Common Errors or Misconceptions

- Pupils may have difficulty when finding 10,000 / 100,000 more than a 4-digit / 5-digit number. For example, 10,000 more than 1,847 is 10,847. They may also have difficulty when finding 10,000 / 100,000 less than a 4-digit / 5-digit number. For example, 100,000 less than 106,013 is 16,013



Key Representations

Gattegno Chart

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

100,000 more than 471,392 is 571,392
10 less than 471,392 is 471,382

Place Value Charts with Digits

100,000s	10,000s	1,000s	100s	10s	1s
5	0	6	8	7	4

506,974 is 100 more than 506,874
506,873 is 1 less than 506,874



Pupils will FLOURISH if they can...

- accurately find 1, 10, 100, 1,000, 10,000 or 100,000 more and less than a given number.
- begin to explain their understanding using their own words and representations.

