5M015 Overview

Master Rounding within 1,000,000

Rationale

In this step, pupils consolidate their learning so far by rounding multi-digit numbers to the nearest 10, 100, 1,000, 10,000 and 100,000. They will use their previous knowledge of number lines and consider multiples of 10, 100, 1,000, 10,000 and 100,000 before and after a given number. They will understand the significance of the relevant digit when rounding to the nearest power of 10 to decide whether to round up to the next multiple or down to the previous multiple. Pupils will develop their learning by identifying a range of numbers which round to a specific multiple of 10,000 or 100,000. For example, all numbers between 155,000 and 164,999 round to 160,000 to the nearest 10,000 and all numbers between 350,000 and 449,999 round to 400,000 to the nearest 100,000

Key Stem Sentences

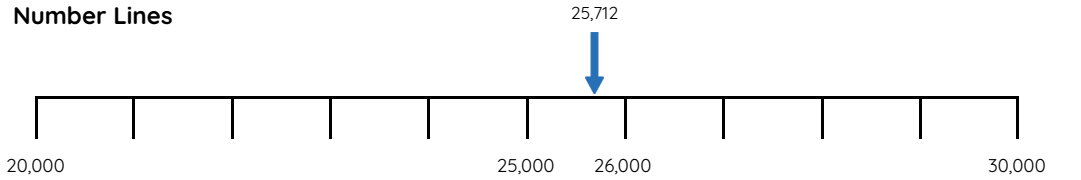
- The multiples before and after ___ are ___ and ___
- ___ rounded to the nearest 10,000 / 100,000 is ___
- When rounding to the nearest 10,000 / 100,000, look at the ___ digit.
- ___ is nearer to the _____ multiple of ___

Key Vocabulary

- nearest / nearer to
- rounded to
- next / previous
- multiple

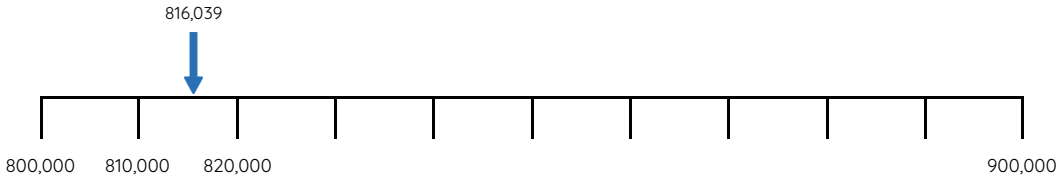
Key Representations

Number Lines



25,712 to the nearest 1,000 is 26,000

25,712 to the nearest 10,000 is 30,000



816,039 to the nearest 10,000 is 820,000

816,039 to the nearest 100,000 is 800,000

Common Errors or Misconceptions

- Pupils may not write the number rounded to as a power of 10. For example, 656,821 to the nearest 100,000 is 700,000, not 756,821
- Pupils may round numbers such as 23,998 to the nearest 10 as 23,990 and not 24,000

Pupils will FLOURISH if they can...

- identify the multiples of 10, 100, 1,000, 10,000 or 100,000 before and after a given number.
- accurately round a given number to the nearest 10, 100, 1,000, 10,000 or 100,000
- identify the range of numbers which round to a specific multiple of 10, 100, 1,000, 10,000 or 100,000
- begin to explain their understanding using their own words and representations.