## Step 3: Round to 10, 100 and 1,000

## National Curriculum Objectives:

Mathematics Year 5: (5N2) Read, write, order and compare numbers to at least 1000000 and determine the value of each digit
Mathematics Year 5: (5N4) Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000
Mathematics Year 5: (5N6) Solve number problems and practical problems that involve 5N1-5N5

## Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Round a given number up to 10,000 to the nearest 10, 100 or 1,000 . Pictorial representations and numerals only.
Expected Round a given number up to 10,000 to the nearest 10,100, or 1,000 . Numbers written as numerals and words.
Greater Depth Round a given number up to 10,000 to the nearest 10, 100 or 1,000 . Numbers written as numerals, words and Roman Numerals.

Questions 2, 5 and 8 (Varied Fluency)
Developing Identify numbers rounded to the nearest 1,000 . Pictorial representations and numerals only.
Expected Identify numbers rounded to the nearest 1,000 . Numbers written as numerals and words.
Greater Depth Identify numbers rounded to the nearest 1,000 . Numbers written as numerals, words and Roman Numerals.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Round numbers to find examples which meet given criteria to support rounding numbers up to 10,000 to the nearest 10,100 , or 1,000 .
Expected From two given statements, round numbers and identify which statement is impossible to support rounding numbers up to 10,000 to the nearest 10,100, or 1,000 . Greater Depth From two given statements, round numbers and identify which statement is impossible to support rounding numbers up to 10,000 to the nearest 10, 100, or 1,000. Numbers represented as numerals, words and Roman Numerals.

## More Year 5 Place Value resources.

Did you like this resource? Don't forget to review it on our website.

1. Draw lines from the number in the centre to the rounded 10,100 and 1,000 values.

2. Shade all the numbers that will have a value of 4,000 when rounded to the nearest 1,000.

| 4,901 | 4,610 | $\begin{array}{llll}100 & & 100 \\ & 100 & \\ \end{array}$ |
| :---: | :---: | :---: |
|  | 4,009 | 3,390 |
| 3,551 | $\begin{array}{ccc} 1,000 & 100 \\ 1,000 & 1,000 & 1,000 \end{array}$ | 3,920 |

3. Jamaal thinks of a number. He writes a statement to describe his number.

I am thinking of a number which will round to 3,500 when rounded to the nearest 10 and 100, but rounds to 3,000 when rounded to the nearest 1,000 .

Find three possible solutions for Jamaal's number and explain your answers.
4. Draw lines from the number in the centre to the rounded 10,100 and 1,000 values.

5. Shade all the numbers that will have a value of 5,000 when rounded to the nearest 1,000.

| 4,450 | 5,816 | Five thousand and <br> five |
| :---: | :---: | :---: |
| 5,870 | Five thousand, <br> nine hundred and <br> fourteen | 4,940 |
| Four thousand, <br> five hundred and <br> fifty | 5,444 | Five thousand, <br> five hundred and <br> one |

6. Tom and Jacob each think of a number. They write statements to describe their numbers.


I am thinking of a number which will round to 4,600 when rounded to the nearest 10 and 100 , but rounds to 4,000 when rounded to the nearest 1,000 .

I am thinking of a number which rounds to 1,960 when rounded to the nearest 10 , and rounds to 2,000 when rounded to the nearest 100 and 1,000.

Whose statement is impossible? Explain your answer.
7. Draw lines from the number in the centre to the rounded 10,100 and 1,000 values.

8. Shade all the numbers that will have a value of 3,000 when rounded to the nearest 1,000.

| Four thousand <br> and ninety-nine | MMMCMIX | 3,290 |
| :---: | :---: | :---: |
| 2,333 | Three thousand <br> and ten | MMDCCCIV |
| MMMD | 2,501 | Two thousand and <br> fifty-one |

9. Katie and Jessica each think of a number. They write statements to describe their numbers.


My number rounds to three and a half thousand when rounded to the nearest 100, MMMDX when rounded to the nearest 10, and four thousand when rounded to the nearest thousand.

Whose statement is impossible? Explain your answer.
I am thinking of a number which rounds to MMCM when rounded to the nearest 100, MMCMX when rounded to the nearest ten and two thousand when rounded to the nearest thousand.

201

## Homework/Extension

## Round to 10, 100 and 1,000

## Developing

1. Lines drawn to 3,000 (represented pictorially); 3,100 (represented pictorially); 3,150
2. 4,100 (represented pictorially); 4,009; 3,551; 3,920
3. Various answers, for example: $3,495,3,496$ and 3,497 because the numbers must round to both 3,000 and 3,500 .

## Expected

4. Lines drawn to 6,800; six thousand, eight hundred and twenty; 7,000
5. Five thousand and five; 4,940; four thousand, five hundred and fifty; 5,444
6. Tom is incorrect. His number would need to be greater than 4,500 to round to 4,600 to the nearest ten or hundred, which means it could not round down to 4,000 to the nearest thousand.

## Greater Depth

7. Lines drawn to 3,550 ; MMMD; four thousand
8. 2,501; Three thousand and ten; 3,290 ; MMDCCCIV
9. Katie is incorrect. Her number would need to be greater than 2,500 to round to 2,900 to the nearest hundred, which means it could not round down to 2,000 to the nearest thousand.
