

Maths - Year 5

Numbers and the Number System 4: Estimating and Rounding

Key Vocabulary

Rounding	Increasing or decreasing a number or amount to make it closer to (usually) a multiple of ten, or a whole measuring unit, e.g. rounding 353 to 350 or 89 cm to 1 metre.
Approximately	Almost accurate, but not completely.
Estimate	A good guess, near the actual.
Nearest multiple of...	The nearest number that is a multiple of a given number e.g. 17 rounded to the nearest multiple of 10 = 20.

Mathematical Skills

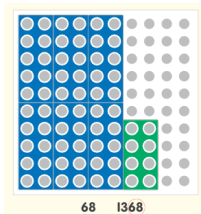
- Use appropriate strategies for estimating in different situations and explain their reasoning.
- Round 4 and 5-digit numbers to the nearest multiple of 10.
- Round 4 and 5-digit numbers to the nearest multiple of 100.
- Round 6-digit numbers to the nearest 1000, 10,000 or 100,000.
- Make connections between rounding whole numbers and rounding decimal numbers.
- Round numbers with two decimal places to the nearest whole number or tenth.
- Use estimating and rounding skills to get an approximate answer when calculating.
- Use the problem context to decide the level of accuracy required when calculating, and whether to round numbers up or down.

Mathematical Methods

- Rounding to the nearest 10 e.g. rounding 1348 to 1350.



- Rounding to the nearest 100 e.g. 1340g would round down to 1300g but 1368g would be rounded up to 1400g.



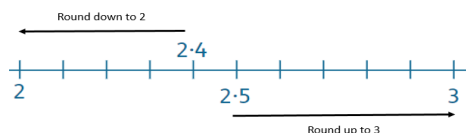
More than half of the board is covered.
Therefore you would round up.

- Rounding to the nearest 1000, 10,000 or 100,000.

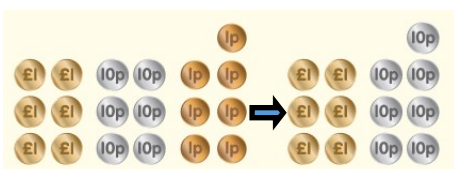
Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
8	6	4	1	2	2

Number	Rounded to the nearest 1000	Rounded to the nearest 10 000	Rounded to the nearest 100 000
864 122	864 000	860 000	900 000
855 569	856 000	860 000	900 000

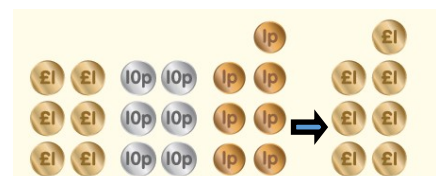
- Rounding numbers with one decimal place to the nearest whole number e.g. 2.8cm rounds up to 3cm.



- Rounding with numbers with two decimal places to the nearest whole number or tenth e.g. rounding £6.67 to £6.70 or £7.00.



Because there are more than 5 pennies, we round up.



- Estimating calculations by rounding e.g. $1516 + 1282$ could be estimated by $1500 + 1300$

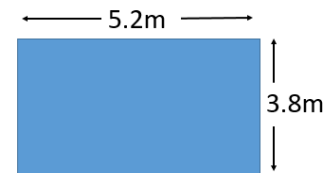
Calculation	Possible answers
$48 + 51 + 59$	128, 158, 198, 218
$19 + 51 + 1$	51, 71, 81, 91
$32 + 29 + 41$	82, 92, 102, 112
$31 + 28 + 32$	61, 71, 81, 91

Can you..?

- Where would 24,242 be on the number line? Round it to the nearest 100, then to the nearest 1000.



- What will the area of the shape be to the nearest square metre?



- Estimate the answer: $8322 - 510 =$