

Lesson 11 **NUMBER****Rounding to the nearest 1000 and estimating**

## CURRICULUM ALIGNMENT

NUM.PVT.3

explore equivalent numerical expressions of numbers using the base ten system.

NUM.OPS.3

understand and apply flexibly the four operations; and the relationships between operations.

INTERACTIVES **Number Line · challenge, display**

## WHAT THIS LESSON TEACHES

To round a number to the nearest 1000, find the two thousands it sits between and choose the closer one. Look at the hundreds digit: if it is 5 or more, round up; if it is less than 5, round down.

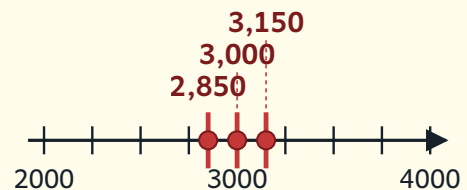
→ 3,400 rounds down to 3,000 because 400 is nearer the start.

→ 6,800 rounds up to 7,000; and 4,500 rounds up to 5,000.

## MODEL THIS ON THE BOARD

**ESTIMATE BY ROUNDING TO 1 000**

- 1 Round **2,850**: the hundreds digit is **8**, so round up to **3,000**.
- 2 Round **3,150**: the hundreds digit is **1**, so round down to **3,000**.
- 3 Add the rounded numbers: **3,000 + 3,000 = 6,000**.



## DISCUSSION STARTER

**REFLECT** After rounding to estimate a sum, were you usually close? What helped?

## ANSWER KEY

b) 2470: 2000–3000; 5280: 5000–6000; 6720: 6000–7000

Q1: 5,000 loaves

Q2: 9,000 buns

Q3: 6,000 tins

Q4: 14,000

a) **Always** : The halfway rule always sends 500 up, so 4,500 becomes 5,000.

b) **Always** : The result is always a whole thousand like 3,000 or 7,000.

c) **Sometimes** : It grows when it rounds up but shrinks when it rounds down.

d) **Never** : €2,000 + €1,000 = €3,000 is an estimate; the exact total is €3,840.

## EXTENSION SHEET · STRETCH ANSWERS

S1: 3000

S2: 6000

S3: 3000

S4: 3000

S5: 200