

Modelling thousandths with concrete and visual tools

MODULE 1 · PLACE VALUE, DECIMALS AND THE NUMBER SYSTEM NUMBER

A **thousandth** is one of **1000 equal parts**. Splitting a whole into ten, then ten again, then ten again gives tenths, hundredths and thousandths.

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→ If a flat (10×10 square) is **1**, one small cube is **0.001**.

→ **1 mm** is **0.001** of a metre, because a metre is 1000 mm.

HOW TO ANSWER TODAY

- **Decimal places.** Tenths is the first digit after the point, hundredths the second, thousandths the third.

In 4.82 the digit in the tenths place is 8. · In 0.345 the hundredths digit is 4.

- **Expanded form (decimals).** Write the decimal as a sum of its parts: ones, tenths, hundredths. Skip any part that is 0.

$$4.52 = 4 + 0.5 + 0.02 \cdot 0.07 = 0.07$$

WARM-UP

a. In 2.9, which digit is in the tenths place

b. In 2.9, which digit is in the tenths place

c. In 8.5, which digit is in the tenths place

d. In 6.9, which digit is in the tenths place

PRACTICE

- 1 Saoirse weighs out **5.71 kg** of duck feed for the wardens at the local pond. Write **5.71** in expanded form, showing the ones, tenths and hundredths parts.

- 2 On the 5th class tour to the Cliffs of Moher, Oisín walks **8.32 km** along the cliff path during the day. Write **8.32** in expanded form, showing the ones, tenths and hundredths parts.

CHALLENGE

- 1 At the sleepover, Cian works out that his sleeping bag, pillow and a packet of biscuits cost his mam **€3.428** in total before the till rounded to the nearest cent. On a number line, between which two whole euros does **3.428** sit, and which whole euro is it closer to?

- 2 Ms Murphy marks the 5th class sprint times on a number line on the board before the pupils line up at the door for yard. Cian's time was **3.387 seconds** over the class average. Between which two whole numbers does **3.387** sit on the number line, and which whole number is it closer to?