

What we already know – place value to millions

MODULE 1 · PLACE VALUE AND THE DECIMAL NUMBER SYSTEM NUMBER

Each digit in a whole number sits in a **place**. Reading from the right: **Units, Tens, Hundreds, Thousands**. Each place is **ten times** the one to its right.

→ **3 482** → 3 thousands, 4 hundreds, 8 tens, 2 units.

→ **70 050** → 7 ten-thousands, 0 thousands, 0 hundreds, 5 tens, 0 units.

HOW TO ANSWER TODAY

- **Expanded form.** Write the number as a sum of its place values. Skip any part that is 0.

$$3,482 = 3,000 + 400 + 80 + 2 \cdot 70,050 = 70,000 + 50$$

- **Value of a digit.** Find which place the digit sits in, then write what it is worth there as a number (not the place name).

In 3,742 the digit 7 sits in the hundreds place. Its value is 700.

TRY IT ON THE LINE

Write each number into the HTh/TTh/Th/H/T/U mat – one digit per cell. Read each one aloud after you write it.

HTh	TTh	Th	H	T	U

1. Build **3,072** in the first row.
2. Build **70,309** in the second row (note the embedded zeros in the Th and T columns).
3. Build **105,008** in the third row.
4. Build **800,070** in the fourth row.

PRACTICE

- 1 The Cumann na mBunscol website reports that **485,708** pupils have taken part in school blitzes across the country since the competition began. Write **485,708** in expanded form.

- 2 The school library catalogue shows that **377,265** books have been borrowed across all the primary schools in the county this year. Write **377,265** in expanded form.

CHALLENGE

- 1 5th class are decorating a World Book Day display board with the total number of words read by all the pupils in the school this term: **6,204,109**. What is the value of the digit **2** in this number?

In 6,204,109, what is the value of the digit 2? (Each zero still holds a place.)

- 2 The 5th class weather station logs the temperature each morning at the bird feeder for four days. The readings in °C are **-4.1**, **4.8**, **0.1** and **2.9**. Order the temperatures from coldest to warmest.

Order from smallest (most negative) to largest: -4.1, 4.8, 0.1, 2.9