

Place-value investigation and review – make the biggest and smallest number

MODULE 1 · PLACE VALUE — WHOLE NUMBERS TO 9,999 AND ROUNDING

NUMBER

HOW TO ANSWER TODAY

- **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.

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

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

STRETCH PROBLEMS

- 1 On the school nature walk, Cian finds four painted number stones on the path showing the digits **4**, **3**, **1** and **6**. He wants to line them up to make the biggest **4**-digit number he can, using each digit once. What is the biggest number Cian can make?
- 2 Cian is playing a maths card game at his desk and turns over four number cards showing the digits **8**, **1**, **5** and **7**. He must use each digit once to make the smallest **4**-digit number he can. What is the smallest number Cian can make?
- 3 Cian is making a raffle ticket number for the school draw using number cards. He has the digits **5**, **1**, **4**, **9** and can use each one once. What is the biggest **4**-digit number he can make?
- 4 On the class noticeboard, Oisín pins up four number cards showing the digits **4**, **3**, **1** and **6**. Using each digit once, what is the biggest **4**-digit number he can make?
- 5 Cian is playing a maths card game at lunch and pulls out the digit cards **8**, **1**, **5** and **7** from his pencil case. He must use each card once to make a **4**-digit number. What is the smallest **4**-digit number he can make?

INVESTIGATE

Shuffle the digits

Use the digits **3**, **0**, **8** and **5** once each. Make the biggest and smallest four-digit numbers you can. How many different four-digit numbers can you make in total? Which of your numbers is closest to **5,000**, and how do you know?
