

Number patterns and sequences – find the rule

MODULE 10 · ALGEBRA — PATTERNS, RULES AND NUMBER SENTENCES

ALGEBRA

★ STRETCH PROBLEMS

- 1 On the school nature walk, Aoife counts the ferns growing along the park path in a pattern: **43**, **41**, **39**, **37**. The numbers keep dropping by the same amount each time. What number comes next?
- 2 The class library thermometer chart shows the temperature dropping over four cold mornings: **14**, **9**, **4**, **-1 degrees** Celsius. The pattern keeps going the same way. What number comes next in the sequence?
- 3 At the Cumann na mBunscol blitz, the scoreboard tracker writes down a number pattern to keep the younger pupils busy: **13**, **4**, **-5**, **-14**. Each number goes down by the same amount. What number comes next in the pattern?
- 4 For the World Book Day display, Aoife hangs paper bookmarks in rows on the classroom wall. The rows have **35**, **29**, **23** and **17** bookmarks, going down by the same amount each time. How many bookmarks are in the next row?
- 5 On the coach trip to the Burren in Clare, the driver counts down the stops left with a sign: **14**, **11**, **8**, **5**. If the pattern keeps going, what number comes next?

● INVESTIGATE

Invent a pattern

Create a number pattern with a clear rule. Write the first six terms, then challenge a partner to find the **rule** and predict the 10th term. Can you also make a growing pattern where the jump gets bigger each time?
