

Lesson 20 **NUMBER**

# Multiplication facts – the 2, 4, 5 and 10 tables and their patterns

## WHAT THIS LESSON TEACHES

The multiples of a number are the numbers you land on when you count in equal steps of it. Multiples of 5 all end in 0 or 5, multiples of 10 all end in 0, multiples of 2 are even, and every multiple of 4 is double a multiple of 2.

→ Counting in fives: 5, 10, 15, 20 — every answer ends in 0 or 5.

→ 2 times 3 is 6 and 4 times 3 is 12 — the 4s answers are double the 2s answers.

## MODEL THIS ON THE BOARD

**IS 40 A MULTIPLE OF 5 AND 10?**

- 1 The shaded cells show the count in fives: 5, 10, 15, 20, 25, 30, 35, **40**.
- 2 Because **40** is shaded it is a multiple of **5**, and it ends in **0**.
- 3 Counting in tens (10, 20, 30, **40**) also lands on 40, so it is a multiple of **10** too.

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |

## DISCUSSION STARTER

**REFLECT** Which times-table pattern sticks in your mind best, and how does it help you?

## ANSWER KEY

**Scaffold:** visual check on the page

**Q1:** 40 points

**Q2:** 4, 8, 12

**Q3:** 12 and 24

**a)** Always — Counting in fives always lands on a number whose last digit is 0 or 5.

**b)** Always — Every number you reach counting in tens has 0 as its last digit.

**c)** Sometimes — 10 and 20 are both, but 15 and 25 are not.

**d)** Always — Every 4s answer is double a 2s answer, so it is always even.

## EXTENSION SHEET · STRETCH ANSWERS

**S1:** 21

**S2:** 40

**S3:** 49

**S4:** 18

**S5:** 63

**Investigation:** Hunt the table patterns — open-ended; scan pupils' working for valid solution paths rather than a single answer.