

Multiplication facts: unfinished business

CURRICULUM ALIGNMENT

ALG.PRR.4a

identify, explain and apply generalisations, including properties of operations, mathematical models and patterns.

NUM.OPS.4

build upon, select and make use of a range of operation strategies.

INTERACTIVES **Hundred Square** · challenge, display, explore

WHAT THIS LESSON TEACHES

A multiple is a number you land on when you count in equal steps of another number, like 7, 14, 21 for the seven-times table. Knowing the patterns helps you spot which numbers belong in each times table.

→ 42 is a multiple of 7 because $6 \times 7 = 42$.

→ Multiples of 5 end in 0 or 5 and make two straight columns on the hundred square.

MODEL THIS ON THE BOARD

IS 63 A MULTIPLE OF 7?

- 1 Count up in sevens: 7, 14, 21, 28, 35, 42, 49, 56, **63**.
- 2 You land exactly on 63 after 9 steps, so $9 \times 7 = \mathbf{63}$.
- 3 63 is a multiple of 7.

ANSWER KEY

Scaffold: visual check on the page

Q1: 630

Q2: 56

Q3: 60

Q4: 990

Q5: 792

a) **Always** : Counting in fives always lands on numbers ending 0 or 5.

b) **Always** : The digit-sum rule holds for every multiple of 9.

c) **Never** : They step diagonally or wander, never neat columns.

d) **Sometimes** : 2 is even but not a multiple of 4; 8 is both.

EXTENSION SHEET · STRETCH ANSWERS

S1: 29330

S2: 23989

S3: 30474

S4: 3475

S5: 2241