Multiple hops: answers and notes

What your child practised: listing multiples, finding common multiples of two numbers and the lowest common multiple, and using them in a problem (Year 5 maths).

Page 1 · Warm up

7: **7, 14, 21, 28, 35, 42**
9: **9, 18, 27, 36, 45, 54**

Page 2 · Try it together

4 and 6: **12, 24, 36**, first is **12**
3 and 5: **15, 30**, first is **15**

Page 2 · A. Multiples of 6

Ring **12, 24, 30, 42, 54, 60**. Not 3 (a factor of 6), 16, 33 or 46.

Page 2 · B. Fill the gaps

8: **24**, **40**, **48** · 9: **18**, **36**, **54** · 25: **75**, **125**

Page 3 · C. The diagram

3 only: **6, 15, 21** · both: **12, 24**
4 only: **8, 16, 20** · outside: **10**

Page 3 · D. Lowest common multiples

3 and 5: **15** · 4 and 10: **20**
6 and 9: **18** · 2 and 7: **14**

Page 3 · E. Buses

Red: 9:06, 9:12, 9:18, 9:24. Blue: 9:08, 9:16, 9:24. Together at **9:24** (24 is the lowest common multiple of 6 and 8).

Page 3 · Challenge

No. 18 ÷ 4 = 4 remainder 2, so 18 is not in the 4 times table. Common multiples of 4 and 6 are **12, 24, 36…**

Watch out for

- **A multiple of only one number.** Children often pick a number from just one list (like 18 for 4 and 6). Ask them to check it by dividing by *both* numbers.
- **Factors and multiples mixed up.** 3 is a factor of 6, not a multiple. Multiples of 6 are 6 or more.
- **Always multiplying the two numbers.** 4 × 10 = 40 is a common multiple, but the *lowest* is 20. Listing both times tables finds it.

Going further (5 minutes, no paper)

- **Clap and stamp again** with new pairs, like 2 and 5 or 6 and 9. Predict the first meeting first.
- **Everyday multiples:** eggs in boxes of 6, socks in pairs, days in weeks. "How many eggs in 7 boxes?"
- **In the game:** Chapter 3, Prime Peaks, finds numbers that have exactly two factors.