

Diagnostic Check marking key: First Mental Arithmetic 5

Below each set of answers you will find **Activity prompts** for helping children to overcome difficulties. Use these activities diagnostically so that you can assess when children understand the concept.

Reading and writing numbers to 1000 in digits and words

1 Four hundred and ninety-two

2 83 is the same as 8 tens and 3 ones

Activity prompt: Write a two-digit number using numerals and check that children can write this using words. Extend to three-digit numbers. Now provide a number written with words and ask children to write this with digits. Use 'Two-spike abacus 2' to check that children understand that, for example, 71 is the same number as 7 tens and 1 one.

Odd and even numbers

3

Is odd	Is not odd
37 49 75 81	10 36 82 94

The numbers may be shown in any order.

4 Odd

Activity prompt: Check that children understand that every other number, starting from zero, is even: 0, 2, 4, 6, ... Ask children to make jumps of 2 starting from zero along 'Number lines from 0 to 20'. Compare, for example, 4 and 14; 8 and 18. Explain that it is the ones digit that determines whether a number is odd or even.

Doubles to 20

5 32

6 38

7 28p

Activity prompt: Check that children know the doubles of all numbers to 10. Then ask them to calculate the double for 11. Ask: *How did you do that?* Repeat this for the other doubles of numbers to 20. Provide practice at recall of these facts during an oral and mental session.

Addition and subtraction

8 4

9 11

10 8p

11 3p

Activity prompt: Ask children to explain how they made the calculations. If they are unsure, remind them that they can use 'counting on' methods for both addition and subtraction. Ask: *How would you calculate 47 add 4?*

Multiplication and division

12 45

14 9

16 30

13 10

15 14

Activity prompt: Ask children to give some answers to questions about multiplication or division by 2, such as: *What is 5 multiplied by 2? There are 16 sweets to be shared by 2 children. How many would they have each?* Repeat this for questions about 10, then about 5. Check that children understand that if they know, for example, $7 \times 5 = 35$, then they can deduce that $35 \div 5 = 7$.