

# Number Bonds to 10 and 20

## Objectives

- Recall number bonds to 10 (page 2).
- Recall number bonds to 20 (pages 3 and 4).
- Recognise that addition and subtraction are inverse operations (pages 2-4).
- Recognise that addition can be done in any order (pages 2-4).

## Instructions

**(page 2 makes a set of 22 cards, pages 3-4 make a set of 42 cards)**

- Print two copies of pages 2-4, using a different colour of card for each set of copies.
- Laminate and cut out.
- Put addition cards in one colour with subtraction cards of a different colour.
- The header cards are only needed for the individual matching game.

**Students work in pairs / small groups as follows (use only one set of cards at once)**

- Shuffle the “addition” cards and put them in a pile face down on the table.
- Put the “subtraction” cards face up on the table so that all the numbers can be seen.
- Each student takes turns to pick up a card from the pile and then finds the corresponding “subtraction” card.

## Alternative version

- Shuffle the “subtraction” cards and put them in a pile face down on the table.
- Put the “addition” cards face up on the table so that all the numbers can be seen.
- Each student takes turns to pick up a card from the pile and then finds the corresponding “addition” card.

## Further ideas

- Play as an individual matching game, matching and lining up the cards in columns under the correct headers.

## Discussion points

- Cards can be matched in two ways. For example,  $8+2=10$  can be matched with  $10-8=2$  or  $10-2=8$ . This makes a good discussion point. Emphasise the fact that, when adding, you can swap the numbers around (for example, to make the sum easier) and still get the same answer, but the same does not apply to subtraction.

### Main curriculum links

**N1/E1.4** Add single-digit numbers with totals to 10

(a) understand the operation of addition and related vocabulary (add, sum of, total, plus, etc.).

**(b) know all pairs of numbers with a total of 10**

**(c) understand that addition is commutative (the concept not the terminology)**

**N1/E2.4** Recall addition and subtraction facts to 10.

(a) understand that there are different strategies to help with mental addition and subtraction

**(b) understand that subtraction is the inverse of addition**

(c) know how to align numbers for column addition

**N1/E3.3** recall addition and subtraction facts to 20

(a) understand that there are different strategies for adding and subtracting

(b) know how to align numbers in column addition

(c) understand that there are different methods of checking answers, e.g. adding in a different order, using inverses, using a calculator.

<b>Addition</b>	<b>Subtraction</b>
$0 + 10 = 10$	$10 - 10 = 0$
$1 + 9 = 10$	$10 - 9 = 1$
$2 + 8 = 10$	$10 - 8 = 2$
$3 + 7 = 10$	$10 - 7 = 3$
$4 + 6 = 10$	$10 - 6 = 4$
$5 + 5 = 10$	$10 - 5 = 5$
$6 + 4 = 10$	$10 - 4 = 6$
$7 + 3 = 10$	$10 - 3 = 7$
$8 + 2 = 10$	$10 - 2 = 8$
$9 + 1 = 10$	$10 - 1 = 9$
$10 + 0 = 10$	$10 - 0 = 10$

<b>Addition</b>	<b>Subtraction</b>
$0 + 20 = 20$	$20 - 20 = 0$
$1 + 19 = 20$	$20 - 19 = 1$
$2 + 18 = 20$	$20 - 18 = 2$
$3 + 17 = 20$	$20 - 17 = 3$
$4 + 16 = 20$	$20 - 16 = 4$
$5 + 15 = 20$	$20 - 15 = 5$
$6 + 14 = 20$	$20 - 14 = 6$
$7 + 13 = 20$	$20 - 13 = 7$
$8 + 12 = 20$	$20 - 12 = 8$
$9 + 11 = 20$	$20 - 11 = 9$
$10 + 10 = 20$	$20 - 10 = 10$

$11 + 9 = 20$	$20 - 9 = 11$
$12 + 8 = 20$	$20 - 8 = 12$
$13 + 7 = 20$	$20 - 7 = 13$
$14 + 6 = 20$	$20 - 6 = 14$
$15 + 5 = 20$	$20 - 5 = 15$
$16 + 4 = 20$	$20 - 4 = 16$
$17 + 3 = 20$	$20 - 3 = 17$
$18 + 2 = 20$	$20 - 2 = 18$
$19 + 1 = 20$	$20 - 1 = 19$
$20 + 0 = 20$	$20 - 0 = 20$
<b>Addition</b>	<b>Subtraction</b>