



# Unit 1 – Numbers to 10

## I Sort objects

→ pages 8–11

### Discover

- There is a group of counters and a group of cubes. There is also a group of red objects and a group of yellow objects.
  - The fruit can be sorted in two different ways. The first way is that it can be sorted into three groups: a group of two apples, a group of two oranges and a group of three bananas.  
The second way is that it could also be sorted into two groups: a group of four round fruit and a group of three non-round fruit.

### Think together

- A group of pens and a group of counters.
- A group of bananas and a group of cherries.
- A group of cars and a group of trucks, or a group of vehicles with a white flash and a group of vehicles without a white flash, or a group of red vehicles and a group of yellow vehicles.

## 2 Count objects to 10

→ pages 12–15

### Discover

- 10 cans.
  - Number: 10; word: ten.

### Think together

- 7 crisp packets.
- 3 bananas, 5 apples.
- 9 cereal boxes.
  - 5 apple juice bottles, 6 oranges.

## 3 Represent numbers to 10

→ pages 16–19

### Discover

- There are 7 cubes.
  - Ten frame showing 7 counters. (5 on top, 2 bottom left) as shown in Share (page 17).

### Think together

- Ten frame showing 5 apples in the top row.
- Ten frame showing 6 cubes in the top row.
- The numbers shown are 1, 2, 3, 4, 5 and 6. Astrid's ten frames both show 5.

## 4 Count objects from a larger group

→ pages 20–23

### Discover

- Children should count out 10 cubes.
  - Children should count out 4 cubes and have 6 left.

### Think together

- Children should stop counting with two apples left at the end of the line.
- 3 cubes.
- Child should trace around a group of 2 adjacent vehicles or 2 individual vehicles.
  - Child should trace around a group of 3 adjacent vehicles or 3 individual vehicles.
  - Child should trace around a group of 4 adjacent vehicles or 4 individual vehicles.

## 5 Count on from any number

→ pages 24–27

### Discover

- 5
  - Children should count on, so 5, 6, 7, 8...

### Think together

- 4, 5, 6, 7, 8, 9, 10.
- 6, 7, 8, 9, 10.
- Children choose their starting point, and then start the count at the next number:  
2, 3, 4, 5, 6, 7, 8, 9, 10;  
3, 4, 5, 6, 7, 8, 9, 10  
4, 5, 6, 7, 8, 9, 10  
5, 6, 7, 8, 9, 10;  
6, 7, 8, 9, 10  
7, 8, 9, 10;  
8, 9, 10  
9, 10  
10.

## 6 One more

→ pages 28–31

### Discover

- There are 4 dinosaurs.
  - One more than 4 is 5. There are 5 dinosaurs now.

### Think together

- Child to point to a number and say the number that is one more. For example, child could point to 5 and say 6.
- One more than 3 is 4.



3. a) One more than 5 is 6.
- b) One more than 9 is 10.
- c) One more than 1 is 2.

## 7 Count backwards from 10 to 0

→ pages 32–35

### Discover

1. a) The number 5 comes next.
- b) The child stops counting at 0.

### Think together

1. 4, 3
2. 2, 1, 0
3. a) 3, 4, 5, 6, 7, 8, 9, 10
- b) 9, 8, 7, 6, 5, 4, 3, 2, 1, 0

## 8 One less

→ pages 36–39

### Discover

1. a) There are 7 chairs.
- b) One less than 7 is 6. There are 6 chairs now.

### Think together

1. Children point to a number and say one less than it. For example, child points to 5 and says 4.
2. One less than 3 is 2.
3. a) One less than 6 is 5.
- b) One less than 5 is 4.
- c) One less than 1 is 0.

## 9 Compare groups

→ pages 40–43

### Discover

1. a) Children trace a line from each child to a ball.
- b) Yes, there are the same number of balls as children so each child can have a ball.

### Think together

1. Yes. There are 3 children and 4 apples.
2. No, there are 5 children but only 3 pizzas.
3. There are 8 counters and 5 bricks. Each child can have a counter but each child cannot have a brick.

## 10 Fewer or more

→ pages 44–47

### Discover

1. a) There are more flags (6 flags, 5 sandcastles).
- b) There are fewer buckets (7 children, 4 buckets).

### Think together

1. There are more sandcastles.
2. There are fewer people.
3. There are more squares.

## 11 <, > or =

→ pages 48–51

### Discover

1. a) Tim has more cubes than Lou.  
Lou has fewer cubes than Tim.
- b) Tim and Ola have an equal number of cubes.

### Think together

1.  $6 > 5$
2.  $3 < 5$
3. a) Show pairs of towers:  
6 on left, 4 on right  
4 on left, 6 on right  
5 on both sides.
- b) The answer can be one of the following:  
 $0 < 4$   
 $1 < 4$   
 $2 < 4$   
 $3 < 4$ .

## 12 Compare numbers

→ pages 52–55

### Discover

1. a) Children point to the following numbers on the number line:  
Bo's number: 4.  
Jess's number: 7.
- b) 7 is greater than 4.  
 $7 > 4$ .

### Think together

1.  $5 < 8$ .  
5 is less than 8.
2.  $3 < 5$  or  $5 > 3$ .
3. a) 8, 9, 10 are greater than 7.  
b) 0, 1, 2, 3, 4, 5, 6 are less than 7.



## 13 Order objects and numbers

→ pages 56–59

### Discover

1. a) Em has the most stars.
- b) Kat has 4 stars.  
Josh has 6 stars.  
Em has 7 stars.

### Think together

1. a) Adam has the smallest number.  
b) Bob has the greatest number.
2. 10, 7, 1
3. a) Children point to 3, 4 and 5.  
b) 5 is the greatest score.  
c) 3 is the least score.

## 14 The number line

→ pages 60–63

### Discover

1. a) 4, 8 and 9 are missing.  
b) 3 has fallen down and 6 and 7 are in the wrong order.

### Think together

1. 6, 7, 8, 9, 10
2. Children can count up from 0 till they get to 6.
3. a) 7 is one more than 6.  
b) 5 is one less than 6.

## End of unit check

1. C: 0
2. D: 7
3. C: 5, 6, 7
4. D: 5 is more than 4
5. A: 8
6. There are several possible answers. For example:

### What is the same?

- Bea and Seth have the same number of balloons.
- Bea and Seth both have red and yellow balloons.

### What is different?

- Bea has more red balloons than Seth.
- Seth has more yellow balloons than Bea.
- Bea has 2 more red balloons than Seth.
- Seth has 2 fewer red balloons than Bea.
- Bea has 5 red balloons and Seth has 3.
- Seth has 2 more yellow balloons than Bea.
- Bea has 2 fewer yellow balloons than Seth.
- Bea has 1 yellow balloon and Seth has 3.



# Unit 2 – Part-whole within 10

## I Parts and wholes

→ pages 68–71

### Discover

- There are 3 frogs on the log. There are 2 frogs in the water.
  - There are 5 frogs altogether.

### Think together

- There are 2 cookies on one plate and 4 cookies on the other plate.
- There are 3 bugs in the one part and 1 bug in the other part.
- The cubes could be split as  $2 + 2$  or  $3 + 1$  or  $1 + 3$  or  $4 + 0$  or  $0 + 4$ .
  - Answers will depend on part a).  
For example: **3** is a part and **1** is a part.  
The whole is 4 for every combination.

## 2 The part-whole model

→ pages 72–75

### Discover

- There are 2 children in the red hoop and 4 children in the blue hoop.  
There are 6 children altogether.
  - 6 is the whole and 2 and 4 are the parts.

### Think together

- 
- 

- The counters could be arranged as:  
4 and 1 or 1 and 4  
3 and 2 or 2 and 3  
In this situation, we cannot use 0 and 5 as the counters would then still be in one group, but it would be correct for an abstract part-whole model.

## 3 Write number sentences

→ pages 76–79

### Discover

- - $2 + 3 = 5$   
2 is a part.  
3 is a part.  
5 is the whole.

### Think together

- - $6 + 3 = 9$
- $6 + 2 = 8$ .  
8 should be the whole (the top number) and 6 and 2 the parts.
- Possible groups are: 1 and 6, 2 and 5, 3 and 4, in any order.
  - A completed part-whole model that represents the child's groups from question 3a).
  - A number sentence that represents the child's groups from question 3a), such as  $7 = 1 + 6$  or  $7 = 6 + 1$ .

## 4 Fact families – addition facts

→ pages 80–83

### Discover

- - $2 + 4 = 6$   
 $4 + 2 = 6$

### Think together

- The parts could be 1 and 4 or 2 and 3, in any order.  
The addition should reflect the part-whole model.  
 $1 + 4 = 5$   
 $4 + 1 = 5$   
 $2 + 3 = 5$   
 $3 + 2 = 5$
- $5 + 2 = 7$   
 $2 + 5 = 7$
- $1 + 5 = 6$   
 $5 + 1 = 6$   
 $6 = 1 + 5$   
 $6 = 5 + 1$



## 5 Number bonds

→ pages 84–87

### Discover

- a) Jack broke his tower into two parts.  
b)  $5 = 2 + 3$   
 $2 + 3 = 5$

### Think together

- $4 + 1 = 5$  or  $1 + 4 = 5$
- a)  $3 + 3 = 6$   
b)  $4 + 2 = 6$  or  $2 + 4 = 6$
- $3 + 4 = 7$   
 $4 + 3 = 7$   
 $2 + 5 = 7$   
 $5 + 2 = 7$   
 $1 + 6 = 7$   
 $6 + 1 = 7$   
 $0 + 7 = 7$   
 $7 + 0 = 7$

## 6 Find number bonds

→ pages 88–91

### Discover

- a)  $2 + 3 = 5$   
b)  $3 + 2 = 5$   
 $1 + 4 = 5$   
 $4 + 1 = 5$   
 $0 + 5 = 5$   
 $5 + 0 = 5$

### Think together

- a)  $4 + 0 = 4$   
b)  $3 + 1 = 4$
- a)  $2 + 2 = 4$   
b) Additions should reflect children's drawings:  
 $1 + 3 = 4$   
 $3 + 1 = 4$   
 $4 + 0 = 4$   
 $0 + 4 = 4$
- $6 = 3 + 3$   
 $6 = 4 + 2$   
 $6 = 5 + 1$

## 7 Number bonds to 10

→ pages 92–95

### Discover

- a) There are 7 upright cans.  
There are 3 cans on their side.  
There are 10 cans altogether.  
b)  $5 + 5 = 10$

### Think together

- $6 + 4 = 10$   
6 and 4 as the parts, 10 as the whole.
- $8 + 2 = 10$   
8 and 2 as the parts, 10 as the whole.
- $8 + 2 = 10$   
 $7 + 3 = 10$   
 $6 + 4 = 10$   
 $5 + 5 = 10$

## End of unit check

→ pages 96–97

- A
- C
- C
- C
- There are several solutions.  
For example:  
 $10 = 1 + 9$ ,  $8 = 2 + 6$ ,  $7 = 3 + 4$   
 $10 = 2 + 8$ ,  $7 = 3 + 4$ ,  $6 = 5 + 1$   
 $10 = 3 + 7$ ,  $8 = 2 + 6$ ,  $5 = 1 + 4$



# Unit 3 – Addition within 10

## I Add together

→ pages 100–103

### Discover

- a) 6 children are sitting.  
4 children are standing.  
b) There are 10 children altogether.  
 $6 + 4 = 10$

### Think together

- $3 + 4 = 7$
- $5 + 3 = 8$
- $5 + 2 = 7$                        $2 + 6 = 8$   
 $7 + 1 = 8$                          $3 + 3 = 6$

## 2 Add more

→ pages 104–107

### Discover

- a) First there were 5 marbles in the jar.  
Then the teacher added 2 marbles.  
Now there are 7 marbles in the jar.  
b)  $5 + 2 = 7$

### Think together

- a) First there were 6 marbles in the jar.  
Then 2 marbles are added.  
Now there are 8 marbles in the jar.  
b)  $6 + 2 = 8$
- 3 more than 5 is **8**.
- $2 + 7 = 9$

## 3 Addition problems

→ pages 108–111

### Discover

- a)  $4 + 4 = 8$ . There are 8 dogs in total.  
b)  $1 + 3 = 4$ . There are 4 people on the seesaw.

### Think together

- $6 + 3 = 9$   
There are 9 jam tarts altogether.
- $2 + 3 = 5$                        $3 + 2 = 5$
- There several possible answers, such as:  
 $2 + 4 = 6$       (adults and children having a picnic)  
 $4 + 4 = 8$       (dogs, 4 on each leash)  
 $2 + 8 = 10$      (8 dogs, plus 2 walkers)  
 $2 + 1 = 3$       (shrubs)

## 4 Find the missing number

→ pages 112–115

### Discover

- a)  $4 + 2 = 6$ , **2** more elephants make 6.  
b) Part-whole model with 6 as the whole and 4 and 2 as the parts.

### Think together

- a) Children add 2 more counters.  
b)  $3 + 2 = 5$
- $3 + 1 = 4$                                $2 + 2 = 4$
- $5 + 1 = 6$                                $2 + 5 = 7$   
 $5 + 3 = 8$                                $4 + 5 = 9$

## End of unit check

→ pages 116–117

- C:  $6 + 2 = 8$
- B
- C: 4
- C
- D:  $9 = 5 + 4$

### Think!

Children could choose the number line as the other two show doubles, or they could choose  $10 = 5 + 5$  because the other two both show a total of 8.



# Unit 4 – Subtraction within 10

## I How many are left (I)

→ pages 120–123

### Discover

- There are 5 balloons left.
  - There are 4 balloons left.

### Think together

- There are 6 balloons left.
- There are 4 balloons left.
- First there are 5 balloons. Then 1 balloon pops. Now there are 4 balloons.
  - First there are 5 balloons. Then 2 balloons pop. Now there are 3 balloons.
  - First there are 5 balloons. Then 3 balloons pop. Now there are 2 balloons.
  - First there are 5 balloons. Then 4 balloons pop. Now there is 1 balloon.

## 2 How many are left? (2)

→ pages 124–127

### Discover

- There are 6 children left.
  - $8 - 2 = 6$   
 8 is the number of children to start with.  
 2 is the number of children who go out of the room.  
 6 is the number of children who are left.

### Think together

- $5 - 2 = 3$
- $7 - 3 = 4$
- $10 - 3 = 7$
  - $10 - 4 = 6$
  - $10 - 5 = 5$
  - $10 - 6 = 4$

## 3 Break apart (I)

→ pages 128–131

### Discover

- 9 is the whole. 4 is a part.
  - 5 is the other part.

### Think together

- $8 - 5 = 3$ ; 3 of the cubes are Kat's.
- $8 - 2 = 5$ ; 5 apples have no leaves.
- 2
  - 3
  - $4 + 2 = 6$   
 $3 + 3 = 6$   
 $5 + 1 = 6$

## 4 Break apart (2)

→ pages 132–135

### Discover

- $5 - 2 = 3$ .  
 The other part is 3.
  - A part-whole model with 5 as the whole and 2 and 3 as the parts.

### Think together

- $5 - 4 = 1$
- $7 - 4 = 3$ ; 4 counters are hidden.
- $6 - 2 = 4$ ; 4 cakes are hidden.

## 5 Fact families

→ pages 136–139

### Discover

- $6 - 2 = 4$ ; 4 rings land on the post.
  - $6 - 2 = 4$   
 $6 - 4 = 2$   
 $2 + 4 = 6$   
 $4 + 2 = 6$

### Think together

- $3 + 4 = 7$   
 $4 + 3 = 7$   
 $7 - 3 = 4$   
 $7 - 4 = 3$
- $1 + 5 = 6$   
 $5 + 1 = 6$   
 $6 - 1 = 5$   
 $6 - 5 = 1$
- |                 |              |
|-----------------|--------------|
| a) $2 + 8 = 10$ | $10 = 2 + 8$ |
| $8 + 2 = 10$    | $10 = 8 + 2$ |
| $10 - 2 = 8$    | $8 = 10 - 2$ |
| $10 - 8 = 2$    | $2 = 10 - 8$ |
| b) $7 + 3 = 10$ | $10 = 7 + 3$ |
| $3 + 7 = 10$    | $10 = 3 + 7$ |
| $10 - 3 = 7$    | $7 = 10 - 3$ |
| $10 - 7 = 3$    | $3 = 10 - 7$ |



## 6 Subtraction on a number line

→ pages 140–143

### Discover

- a) Maya lands on 6.  
b) Maya lands on 4.

### Think together

- $6 - 2 = 4$ ; Maya lands on 4.
- $7 - 3 = 4$   
 $6 - 4 = 2$   
 $9 - 5 = 4$
- a)  $3 - 3 = 0$   
b)  $2 - 2 = 0$   
c)  $1 - 1 = 0$

## End of unit check

→ pages 152–153

- D: 5
- C:  $6 - 4 = 2$
- A:  $5 - 3 = 8$
- B:  $8 - 3 = 5$
- D: 4

### Think!

Fred has rearranged the numbers incorrectly:  $3 - 6 \neq 3$ .

The facts are  $3 + 3 = 6$  and  $6 - 3 = 3$ , or rearranged so that the answer is first:  $6 = 3 + 3$  and  $3 = 6 - 3$ .

## 7 Add or subtract 1 or 2

→ pages 144–147

### Discover

- a)  $6 + 1 = 7$   
There would be 7 apples.  
b)  $6 + 2 = 8$   
There would be 8 apples.

### Think together

- a)  $5 - 1 = 4$   
b)  $5 - 2 = 3$
- a)  $8 + 1 = 9$   
b)  $8 + 2 = 10$   
c)  $8 - 1 = 7$   
d)  $8 - 2 = 6$
- a)  $7 + 2 = 9$   
b)  $7 - 2 = 5$

## 8 Solve word problems – addition and subtraction

→ pages 148–151

### Discover

- a) There are 7 pieces of fruit in total.  
b)  $7 - 2 = 5$   
There are 5 pieces of fruit left.

### Think together

- $5 + 4 = 9$   
There are 9 presents altogether.
- $8 - 5 = 3$   
There are 3 sweets left.
- $4 + 6 = 10$   
There are 10 apples in total.






# Unit 5 – 2D and 3D shapes

## I Recognise and name 3D shapes

→ pages 156–159

### Discover

1. a)  cube cuboid sphere pyramid

b) The cylinder does not have a pair.

### Think together

- The yellow (first), purple (fourth) and red (fifth) shapes are cubes.
- There are 2 pyramids.
  - 2 of the shapes are spheres.

## 2 Sort 3D shapes

→ pages 160–163

### Discover

- Rocket 1 has broken.
  - The sphere and the cone were not used.

### Think together

- Cube and pyramid.
  - Cuboid and cone.
  - Cuboid, cube and cylinder.
- There are 3 cubes.
  - There are 2 cylinders.
  - There are 0 spheres.
  - There are 3 pyramids.
- There are 5 cuboids, 3 of which are also cubes.

## 3 Recognise and name 2D shapes

→ pages 164–167

### Discover

- There are 2 circles, 3 squares, 3 triangles, 2 rectangles (5 including the squares) and 2 other shapes.
  - 9 of the shapes are not triangles.

### Think together

- There are 3 squares. There are 2 circles.
- There are 2 rectangles.
  - There are 3 triangles.
- The third shape from the left (the parallelogram) is the odd one out because it is not a rectangle.

## 4 Sort 2D shapes

→ pages 168–171

### Discover

- Kat used the cube for the square head. She used the cone and the cuboid for the body.
  - Kat printed the purple arms before the hands because the triangle hands overlap them.

### Think together

- Cuboid A can print squares and rectangles.
  - Cuboid B can print 3 different rectangles.
- Both the square-based pyramid and the triangular-based pyramid have 4 triangular faces.
  - The square-based pyramid has 1 square face. The triangular-based pyramid does not have any square faces.
- The cylinder, the cone and the hemisphere can all print a circle. The sphere cannot print a circle.


## 5 Make patterns with shapes




→ pages 172–175

### Discover

- There is 1 small circle hidden under the mug.
  - There are 8 rectangles on the right-hand side of the invite.

### Think together

- 

This is because the size of the triangles and the direction they face match the pattern.
- 
  - The red cube .
-  The pattern repeats cube, sphere, cuboid.



## End of unit check

→ pages 176–177

1. B
2. D
3. C: 4
4. B: square and circle
5. C: triangle

### Think!

Children should indicate that it belongs in the first group as it is a 3D shape, not a 2D shape. Children may also mention that it has one face shaded darker than the other faces.