Mathletics

Numbers and Patterns

Series A – Numbers and Patterns

Contents

Series Author:

Rachel Flenley

Series A – Numbers and Patterns

Page 1

1 Teacher check.

2 nought   none

  nil   nothing

3
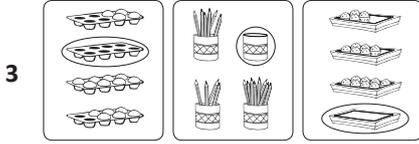
4 Teacher check.

Page 2

1 Teacher check.

2 Teacher check.

3 Teacher check.

Page 3

1 Teacher check.

2 Teacher check.

3 2 2 2

  2 2 1

Page 4

1 Teacher check.

2 (three) tree thre (three) here

3 Teacher check.

4 3 2 1

  3 2 3

Page 5

1 Teacher check.

2 (four) for (four) our (four)

3

  4 paws   **4** doors   **4** snapping crab claws
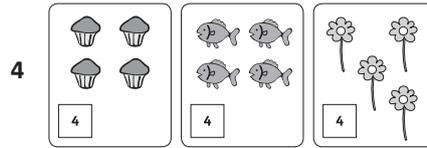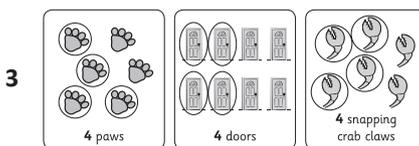
Page 6

1 Teacher check.

2 i; f; v; e

3 Teacher check.

4 Teacher check.

Page 7

1 Teacher check.

2

Page 8

1

2
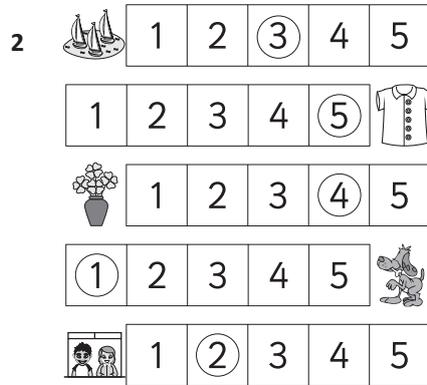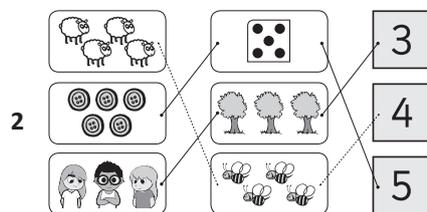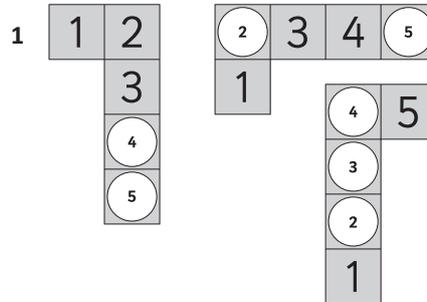
Page 9

Teacher check.

Page 10

1 Teacher check.

2 Teacher check.

3
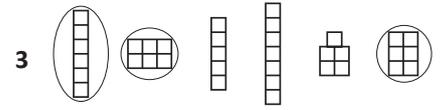
4 Observe students.

Page 11

1 Teacher check.

2

3

Page 12

1 Teacher check.

2

  8 skates   **8** weights   **8** great mates

3 Teacher check.

4
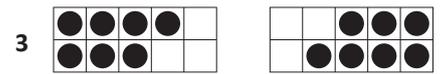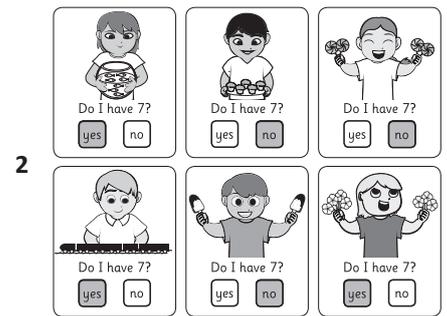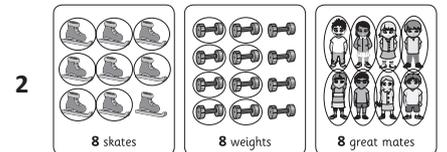
Page 13

1 Teacher check.

2

3 Answers will vary.

Series A – Numbers and Patterns

Page 14

1 Teacher check.

2

10 pens	**10** boys called Ben	**10** very tall men

3 Teacher check.

Page 15

1 `1 2 3 4 5 6 7 8 9 10`

2

before	after	before	after
1	**2** 3	7	**8** 9

before	after	before	after
5	**6** 7	2	**3** 4

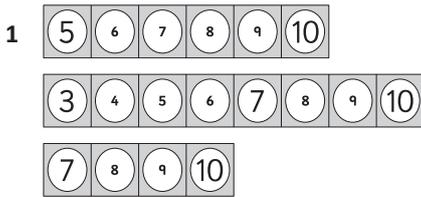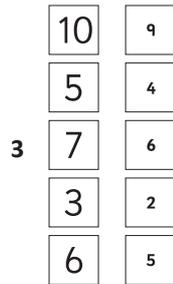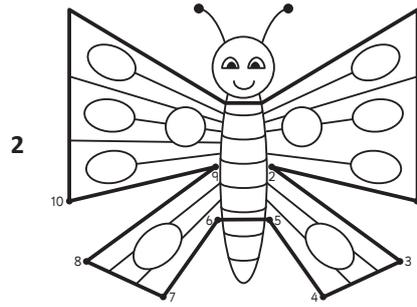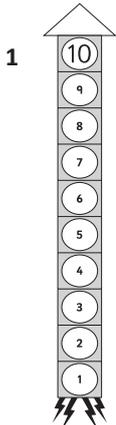| before	after	before	after
4	**5** 6	8	**9** 10
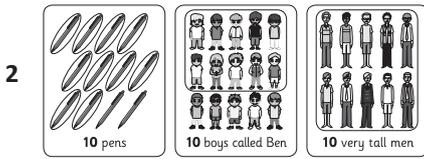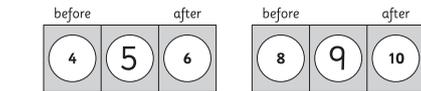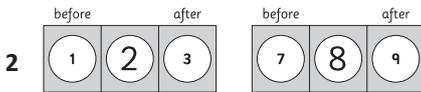
3 Observe students.

Page 16

1 4

2 9

3 8

Page 17

1 `5 6 7 8 9 10`
  `3 4 5 6 7 8 9 10`
  `7 8 9 10`

2 Teacher check.

Page 18

1
10
9
8
7
6
5
4
3
2
1

2

3
10	9
5	4
7	6
3	2
6	5

Page 19

1
6 ●●●●● ● □□□□
6 is **1** more than **5**.

7 ●●●●● ●● □□□
7 is **2** more than **5**.

8 ●●●●● ●●● □□
8 is **3** more than **5**.

9 ●●●●● ●●●● □
9 is **4** more than **5**.

10 ●●●●● ●●●●●
10 is **5** more than **5**.
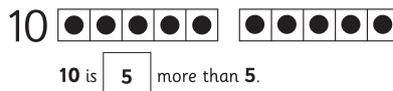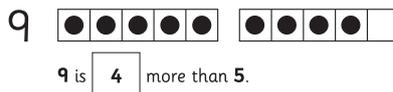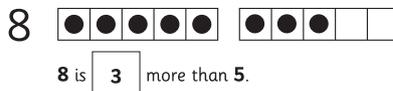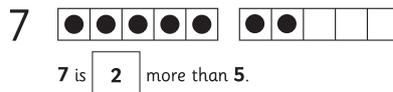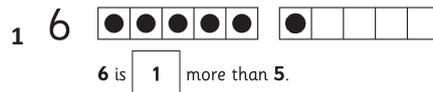
2 1; 2

Page 20

1 1 9 2
   8 3 5
   6 4 7
      10

Page 21

1 Teacher check.

2 Teacher check.

Page 22

1 Teacher check.

2

3
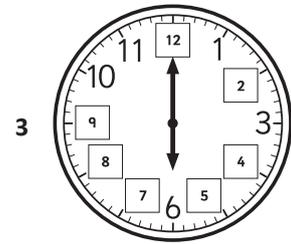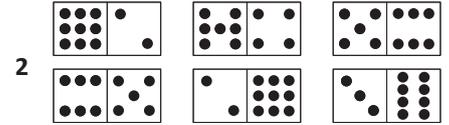
Page 23

1 Teacher check.

2 Teacher check.

most 15	14	least 13

3 Answers will vary.

Page 24

1
11 ●●●●● / ● □□□□
11 is **1** more than **10**.

12 ●●●●● / ● □□□
12 is **2** more than **10**.

13 ●●●●● / ●● □□
13 is **3** more than **10**.

14 ●●●●● / ●● □□
14 is **4** more than **10**.

15 ●●●●● / ●●● □□
15 is **5** more than **10**.
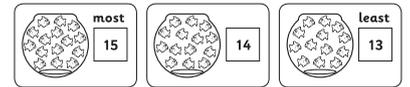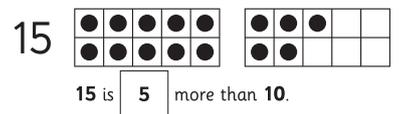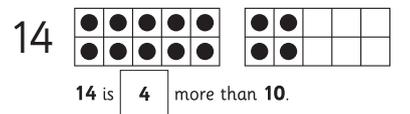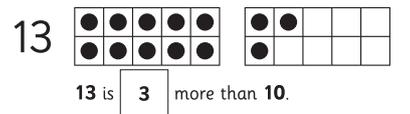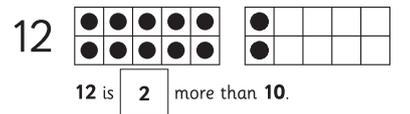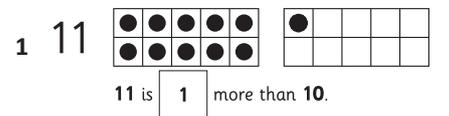
2 6; 7

Series A – Numbers and Patterns

Page 25

1 Teacher check.

2 16; 19; 18

3 16, 17, 18, 19
     16, 17, 18, 19

Page 26
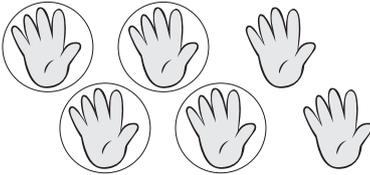
1 Teacher check.

2

3 Answers will vary.
     Possible answer:

Page 27

1

2

3 Teacher check.

Page 28

1a 11, 12, 13, 14

  b 14, 15, 16, 17, 18

2a 19, 18, 17, 16

  b 15, 14, 13, 12, 11

3 Observe students.

Page 29

What to do
Observe students.

Page 30

What to do
Observe students.

What to do next
Observe students.

Page 31

1 1, 4, 14;

     1, 6, 16;

     1, 7, 17;

     1, 2, 12;

     1, 9, 19;

     2, 0, 20

Page 32

1 12; 14; 9;

     20; 8; 19

2 Observe students.

Page 33

1 Answers will vary.

Page 34

1 Observe students.

2 Teacher check.

3 Teacher check.

Page 35

1

2 Teacher check.

Page 36

3 Answers will vary.
     Possible answer:

2 Answers will vary.

Page 37

1 2, 4, 24;

     1, 9, 19;

     2, 6, 26;

     3, 0, 30;

     2, 7, 27;

     2, 2, 22

2 Teacher check.

Page 38

1
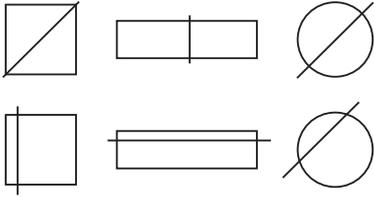
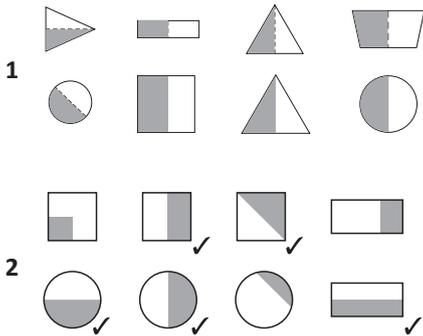**2** Answers will vary.
     Sample answer:

Page 39

1

Series A – Numbers and Patterns

Page 39

2 Answers will vary.
Sample answer:

Page 40

1

2

Page 41

What to do
Teacher check.

Page 42

1 Teacher check.

2 3rd; 2nd; 1st

Page 43

What to do
Observe students.

Page 44

1 Teacher check.

2 1st: Milly   4th: Zara
    8th: Sam   10th: Jon

Page 45

What to do
Observe students.

What to do next
Observe students.

Page 46

1

B

Page 47

1
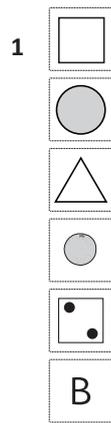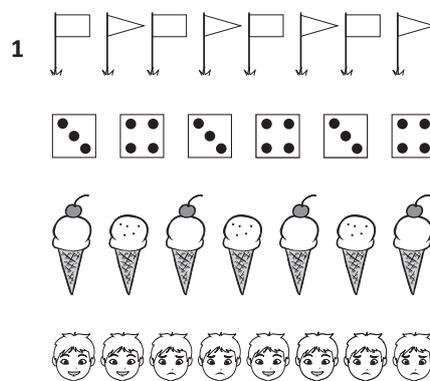
2 Observe students.

Page 48

What to do
Teacher check.

What to do next
Teacher check.

Page 49

What to do
Observe students.

What to do now

What to do next
Observe students.

Page 50

1 2; 1; 2; 1; 2; 1
    3; 2; 3; 2
    1; 2; 1; 2; 1; 2

2

Page 51

1

2 2; 2; 1

3 Teacher check.

Page 52

1

Page 53

1

2 1 2 3 4 ⑥⑤ 7 8 9 10
    10 9 8 7 6 5 4 ②③ 1
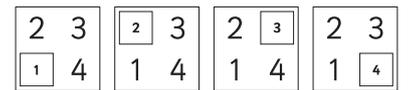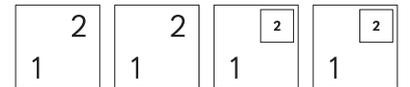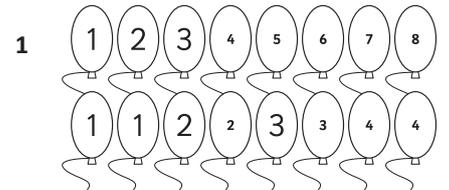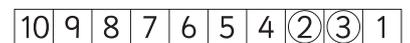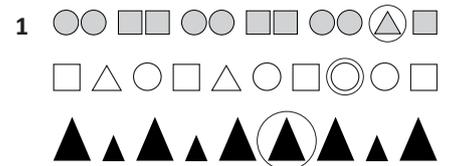
3 Teacher check.

Series A – Numbers and Patterns

Page 54

1

 ; add 1

 ; add 2

2

Page 55

What to do

Answers will vary.

What to do next

Observe students.

Page 56
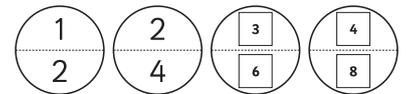
1   Teacher check.

2   Teacher check.

3   Teacher check.

4   Teacher check.

Page 57

1   Teacher check.

Page 58

1

Page 59

1   2 and 3 = 5

4 and 2 = 6

3 and 1 = 4

5 = 1 and 4

Page 60

What to do

Teacher check.

What to do next

Observe students.

Page 61

1   Teacher check.

Numbers to 10

1 How many?

a [bees image] **4**

b [dog image] **1**

c [buttons image] **5**

d [children image] **10**
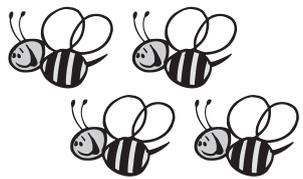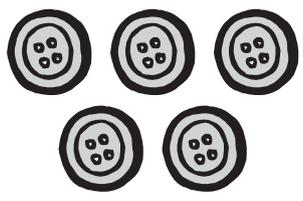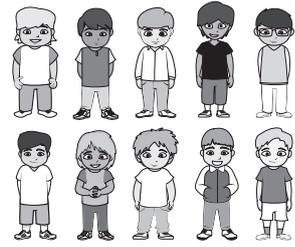
2 This is one way to show 5.

Show another way.
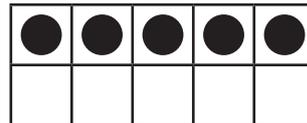
[ten frame: top row 5 filled circles, bottom row empty]
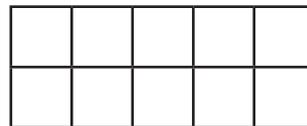
Teacher check.

3 Fill in the missing numbers on the track.
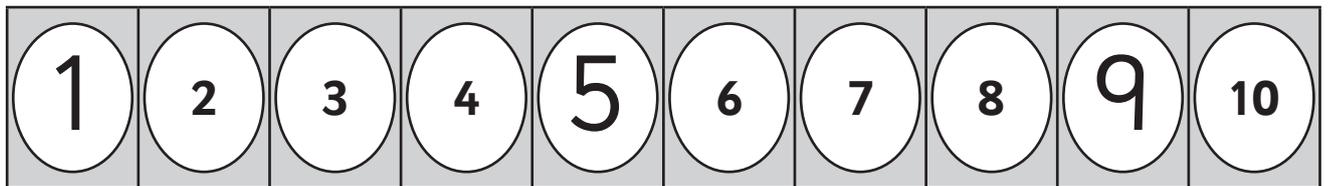
1 **2** **3** **4** **5** **6** **7** **8** **9** **10**

4 Write the numbers that come **before** and **after**.

before   after

1 **2** **3**

before   after

7 **8** **9**

Numbers to 10

Name _____

5 🖎 Count on.

| 5 | 6 | 7 | 8 | 9 | 10 |

| 3 | 4 | 5 | 6 |

6 🖎 Draw more to make 8 faces at the window.
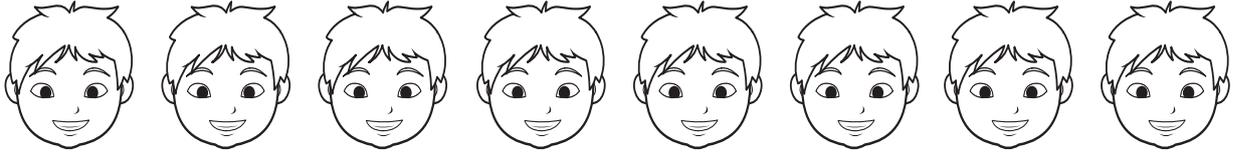
7 🖎 Count back.

| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

Skills and understandings	Not yet	Kind of	Got it
• Identifies how many in a collection and writes cardinal number			
• Writes numbers in order from 1–10			
• Identifies the position of a number relative to others			
• Enters and leaves the counting sequence at different points (1–10)			
• Counts backwards from 10			

Numbers to 20

1 How many?

12

15
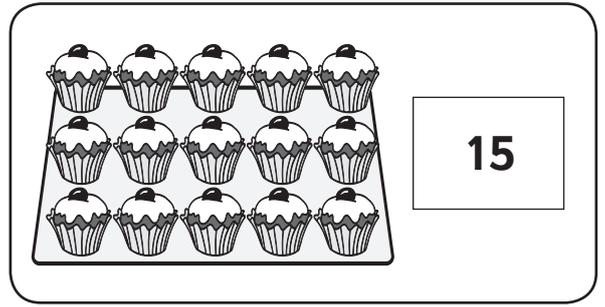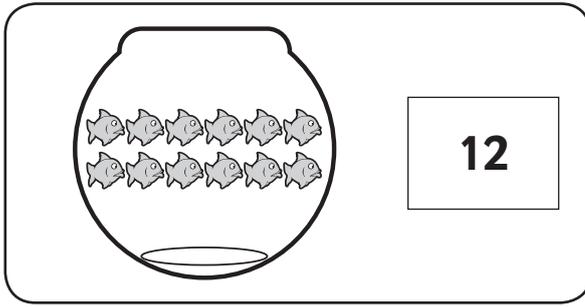
2 Draw more dots to show.

17

14

3 Fill in the missing numbers.

1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18

Numbers to 20

Name _____
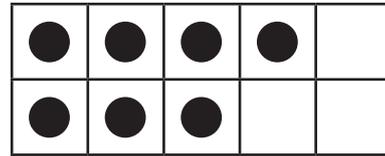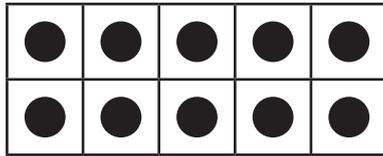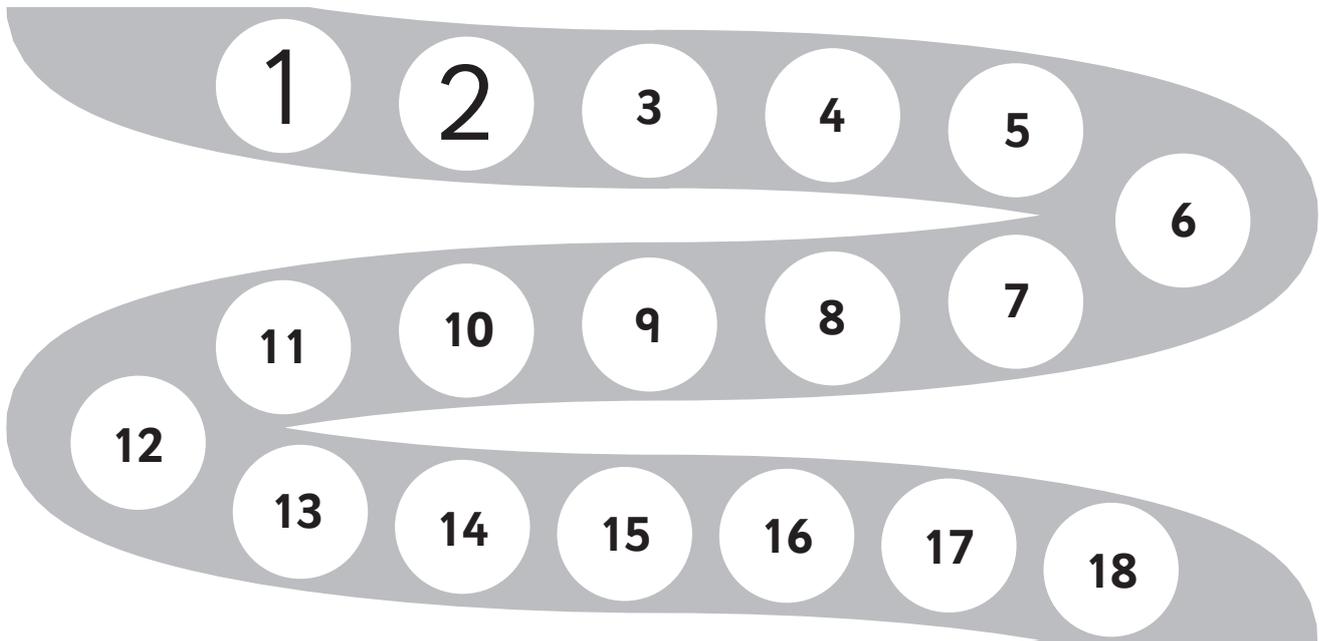
4 Write the numbers that come **before** and **after**.

before		after		before		after
9	10	11		15	16	17

5 Write a number that is **more than** 13. ☐

Write a number that is **less than** 20. ☐

Teacher check.

6 Count on.

10	11	12	13	14	15

7 Count back.

19	18	17	16	15	14

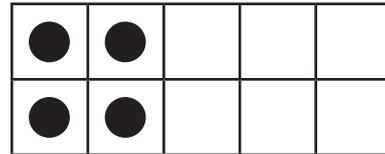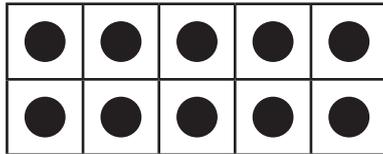| Skills and understandings	Not yet	Kind of	Got it
• Identifies how many in a collection and writes cardinal number			
• Writes numbers in order from 1–20			
• Identifies the position of a number relative to others			
• Enters and leaves the counting sequence at different points (1–20)			
• Counts backwards from 20			

Numbers to 30

1 Fill in the missing numbers.

11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

....

2 Write 3 numbers that are less than me. Write 3 numbers that are more than me.

less than   **19**   more than

_____   _____

_____   **Teacher check.**

_____   _____

....

3 Write the numbers that come before and after.

before   after   before   after

| 19 | 20 | 21 | | 28 | 29 | 30 |

Numbers to 30

Name _____

4 ✏️ Circle the right number of shapes.
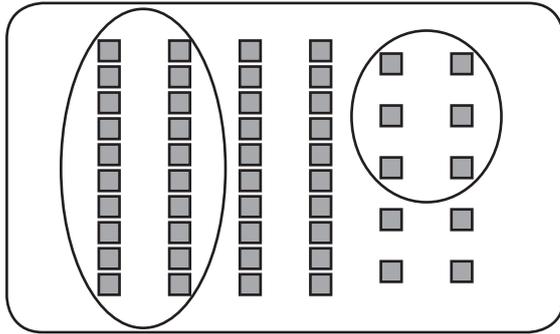
26
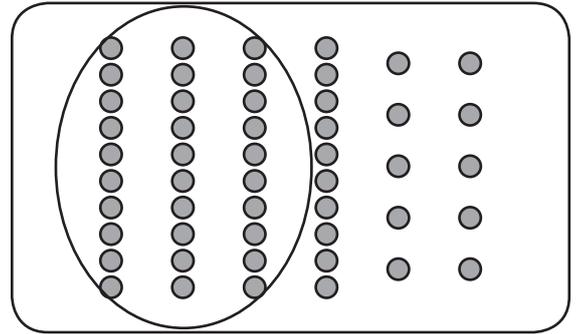
30

· ·

5 ✏️ How many?
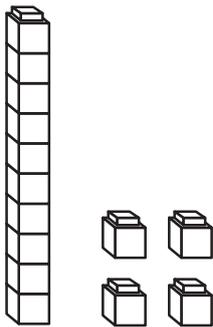
1	4	14
tens	ones	number
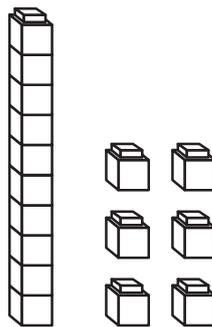
1	6	16
tens	ones	number
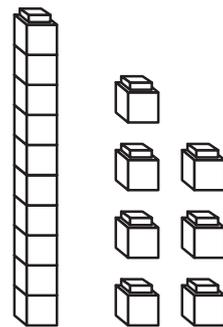
1	7	17
tens	ones	number

Skills and understandings	Not yet	Kind of	Got it
● Orders and writes numbers, 1–30			
● Identifies the position of a number relative to others, bridging decades			
● Groups objects into tens and ones to model 2-digit numbers (to 30)			
● Writes 2-digit numbers using correct place values (to 30)			

Fractions

Name _____

1 ✓✎ Tick the wholes. Circle the parts.
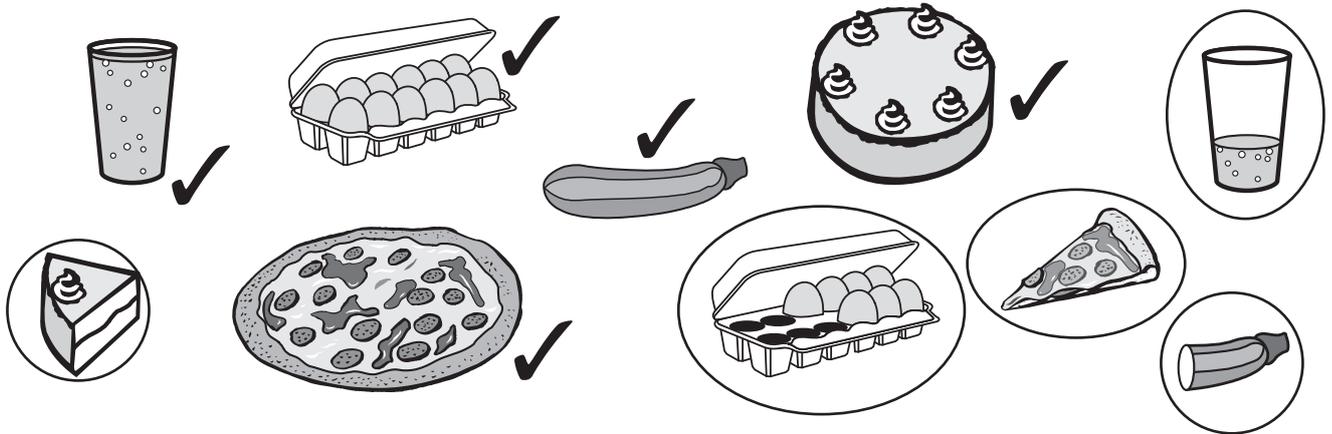
2 ✎ Draw lines to cut these shapes into 2 equal parts.
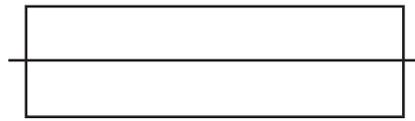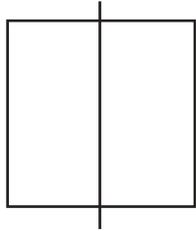
or equivalent

3 ✎ Colour 1 half of the circle.

4 ✓ Tick the shapes that have 1 half shaded.

Skills and understandings	Not yet	Kind of	Got it
● Identifies parts and wholes			
● Identifies equal and non-equal parts (shape or object)			
● Recognises, creates and records halves (shape or object)			

Ordinal numbers

Name _____

1 ✏️ Look at this race. Write the ordinal numbers to show the order.
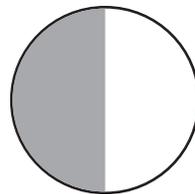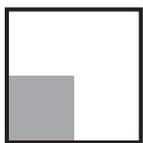
FINISH

3rd	2nd	1st

Start
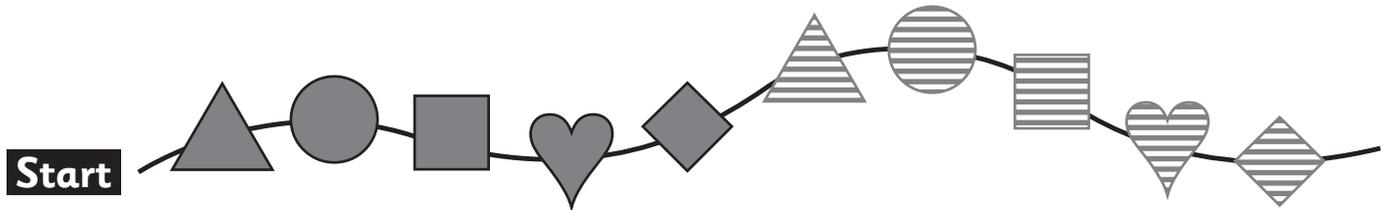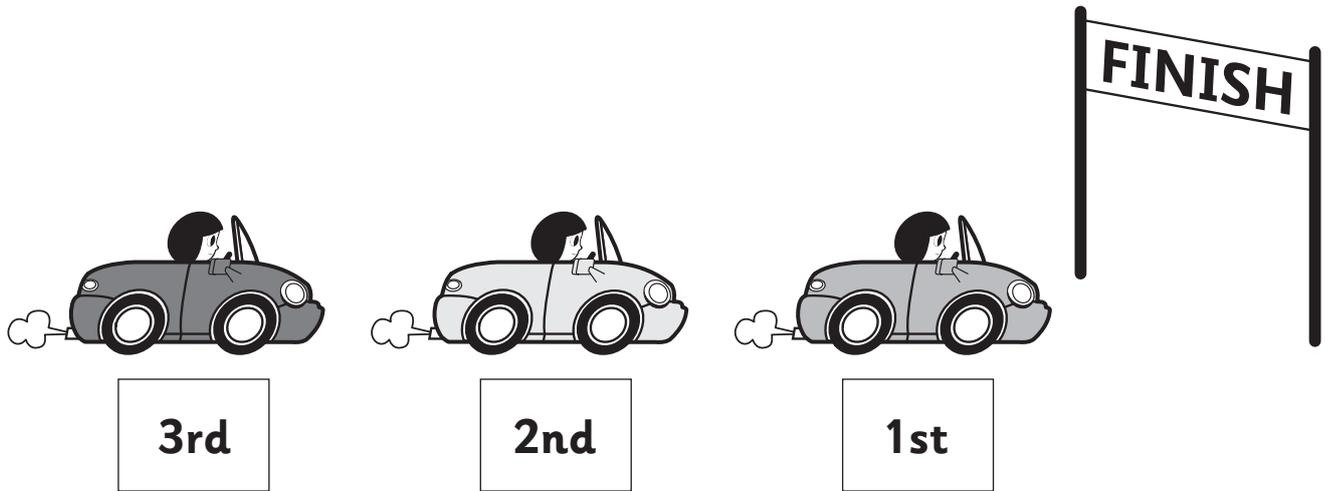
2 ✏️ What position?

The ⬤ is ___**2nd**___ .

The ▥ is ___**8th**___ .

The 🔺 is ___**6th**___ .

The ▲ is ___**1st**___ .

Help   1st   2nd   3rd   4th   5th   6th   7th   8th   9th   10th

Skills and understandings	Not yet	Kind of	Got it
● Recognises 1st, 2nd and 3rd			
● Recognises 1st to 10th			
● Identifies position of objects in lines			

Patterns

Name _____

1 👂 ✍️ Say each pattern out loud. What comes next? Draw it.
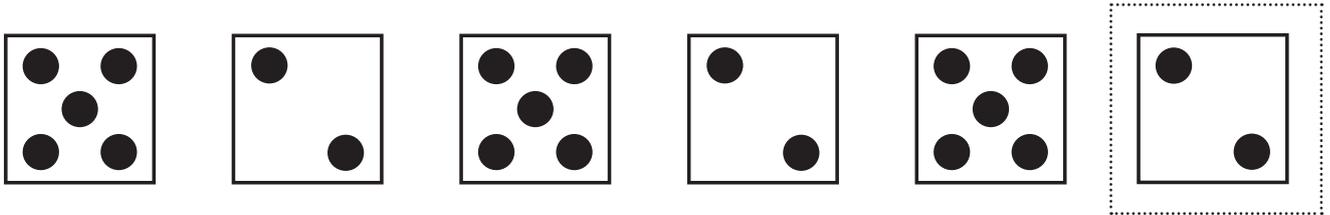
2 ✍️ Draw the missing parts.
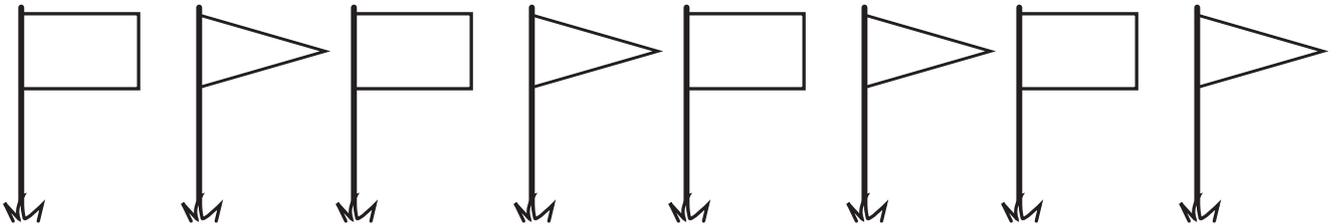
3 🔍 ✍️ Can you spot the mistake in this pattern? Circle it.

Patterns

4 Draw your own pattern using ▢ △ ◯

Teacher check.

....

5 Draw triangles to match.

△△ △ △△ △ △△ △

| 2 | 1 | 2 | 1 | 2 | 1 |

....
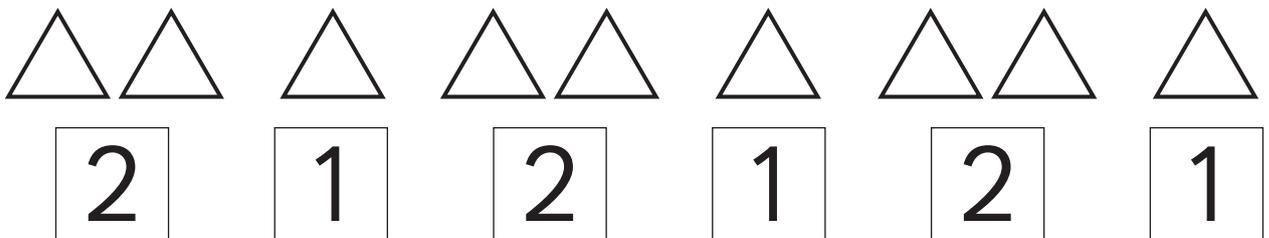
6 Continue the number pattern.

① ① ② ② ① ① ② ②

or 3, 3, 4, 4

....

Skills and understandings	Not yet	Kind of	Got it
● Continues and creates simple repeating patterns			
● Spots errors in patterns			
● Continues and creates simple number patterns			

Number relationships

1 Draw pictures in the empty box to make the groups the same.
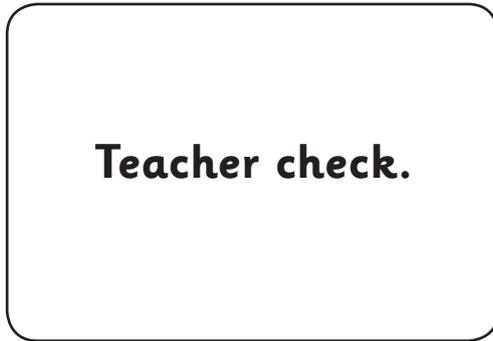
Teacher check.	is the same as

....
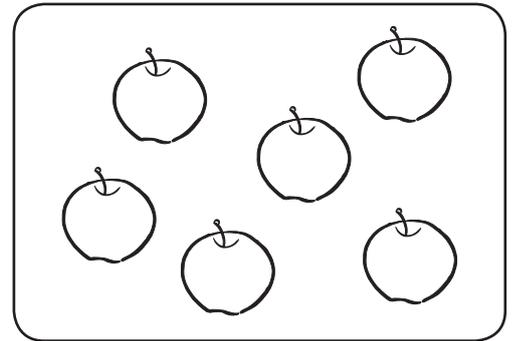
2 Draw pictures to make the groups NOT the same.

is **not** the same as | **Teacher check.**

....
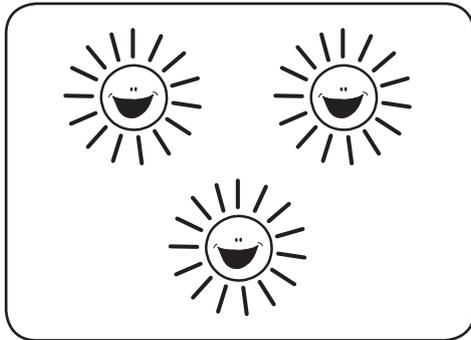
3 Draw blocks to make the scales balance. This means the sides have the **same** amounts of blocks. They are **equal**.

is the same as

is the same as

....
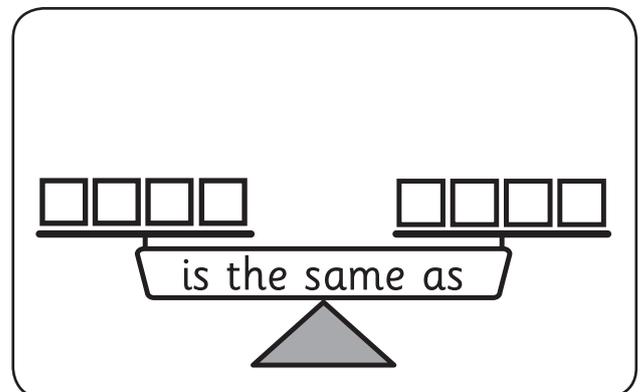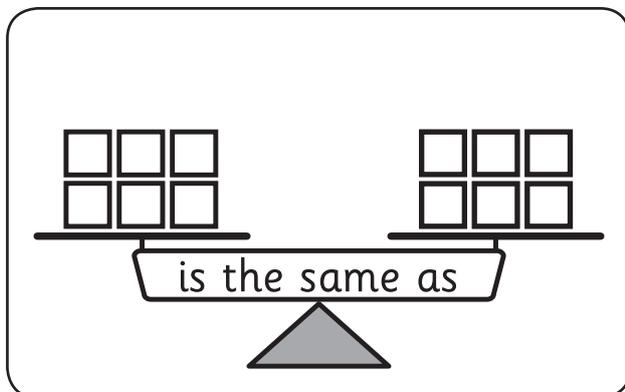
Skills and understandings	Not yet	Kind of	Got it
• Understands that 'the same as' expresses equality			

Series A – Numbers and Patterns – Student Progress Record

Name _____ Class _____ Date _____

What went well: _____

_____

_____

_____

What I need to improve: _____

_____

_____

_____

✄- -

Series A – Numbers and Patterns – Student Progress Record

Name _____ Class _____ Date _____

What went well: _____
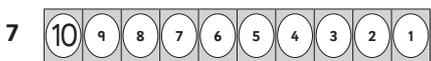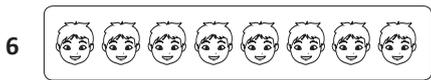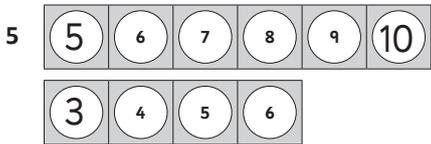
_____

_____

_____

What I need to improve: _____

_____

_____

_____

Series A – Numbers and Patterns

ASSESSMENT ANSWERS

Pages 6–7
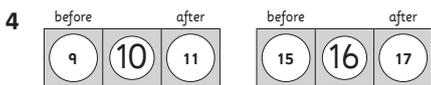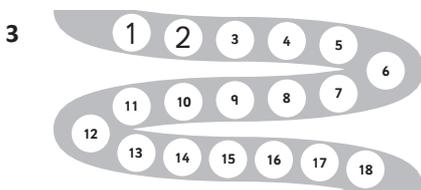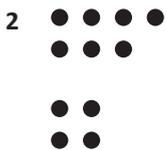
1a 4

b 1

c 5

d 10

2 Teacher check.

3

4

5

6

7

Pages 8–9

1 12; 15

2

3

4

5 Teacher check.

6

7

Pages 10–11

1

2 Teacher check.

3

4

5

Page 12

1

2

or equivalent

3

4
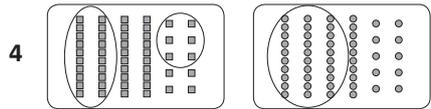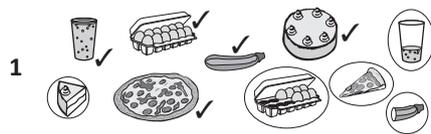
Page 13

1 3rd; 2nd; 1st

2 2nd; 8th

6th; 1st

Pages 14–15

1

2

3

4 Teacher check.

5

6

or 3, 3, 4, 4

Page 16

1 Teacher check.

2 Teacher check.

3
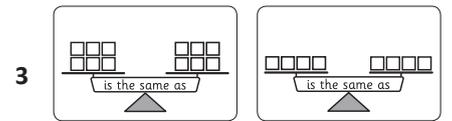
Series A – Numbers and Patterns

Topic	Reference	Strand	Objective
Numbers to 10	ELG1.1	Number	Count reliably with numbers from 1–20.
Numbers to 10	ELG1.2	Number	Place numbers 1–20 in order.
Numbers to 10	ELG1.3	Number	Say which number is one more or one less than a given number.
Numbers to 20	ELG1.1	Number	Count reliably with numbers from 1–20.
Numbers to 20	ELG1.2	Number	Place numbers 1–20 in order.
Numbers to 20	ELG1.3	Number	Say which number is one more or one less than a given number.
Numbers to 30	ELG1.1	Number	Count reliably with numbers from 1–20.
Numbers to 30	ELG1.2	Number	Place numbers 1–20 in order.
Numbers to 30	ELG1.3	Number	Say which number is one more or one less than a given number.
Ordinal Numbers	ELG1.1	Number	Count reliably with numbers from 1–20.
Ordinal Numbers	ELG1.2	Number	Place numbers 1–20 in order.
Ordinal Numbers	ELG1.3	Number	Say which number is one more or one less than a given number.
Fractions	ELG1.5	Number	They solve problems, including doubling, halving and sharing.
Number Relationships	ELG1.5	Number	They solve problems, including doubling, halving and sharing.
Patterns	ELG2.2	Shape, Space and Measure	Recognise, create and describe patterns.