

Mathletics

$$5 + 7 = 12 \quad 5 + 7 = 12$$

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Statistics

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Series D – Statistics

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Series Author:

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Series D – Statistics

Pages 1–3

1 What is your birthday?

What is your lucky number?

What is your favourite colour?

2a 'Do you prefer chocolate or caramel flavoured ice cream?'

b The first question would get more useful answers. The other question is too broad, there would be too many different answers.

3a

turtle	cat	elephant	spider
guinea pig	chimpanzee	dog	snake

b Which classroom pet do you prefer, a turtle or a guinea pig?

c Answers will vary.

4a 25

b 28

5a

Favourite colours in 4B	
Red	
Blue	
Green	
Yellow	

b 30

c It makes it easy to count because they are in groups of 5.

Pages 4–7

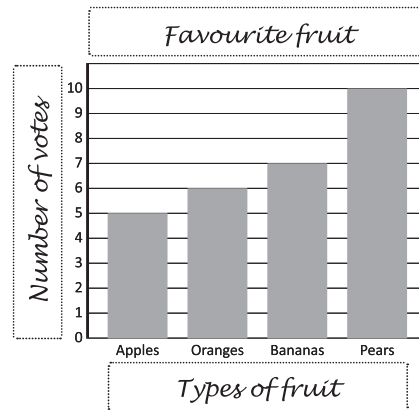
1a 6

b Blonde

c Fair

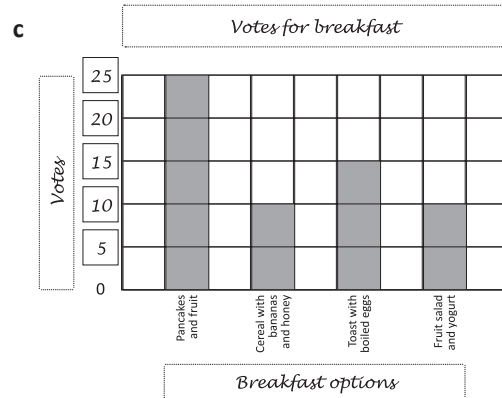
d The same number of children have red and black hair.

2 5; 6; 7; 10



3a Which of these four options would you like for the healthy breakfast morning?

b 25; 10; 15; 10



4a by bike

b 28

c 2

5a 150

b 30

c false

Pages 8–9

1a Mini-beasts that we saw

b 8





c 8

d 46

Series D – Statistics





Pages 8–9

2a, b





Mini-beasts that we saw	
Worms	
Dragonflies	
Snails	
Butterflies	

c It's easier to count the amount in each category.

3

Heading: Fruit in stock (or similar)	
Bananas	
Apples	
Oranges	
Pineapples	

4

Heading: Birthdays in grade 3	
January	
February	
March	
April	

Key: 4

Pages 10–11

1a 3

- b Sara and Nick
c A cat

2

	Yvette	Simon	Ben	Mel	Arki	Lee
	Glasses			No glasses		
Hat	Lee Simon		Arki Yvette			
No hat	Ben			Mel		

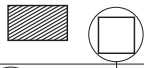



3a

	Even	Not even
Less than 10	6	9
Not less than 10	20 16	19 21

3b

	Divisible by 5	Not divisible by 5
Greater than 30	35 45 40	34 32
Not greater than 30	20 25 15	28 18 12

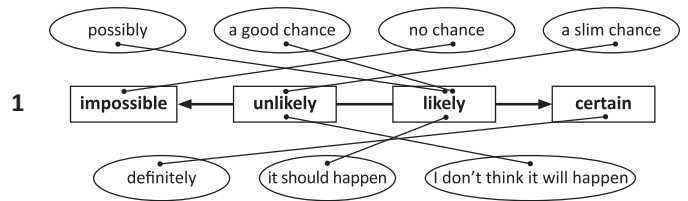
4

	Quadrilateral	Not quadrilateral
Striped		
Not striped		

Page 12

- 1a Which operation matches this picture?
b Answers will vary.
c Answers will vary.

Pages 13–15

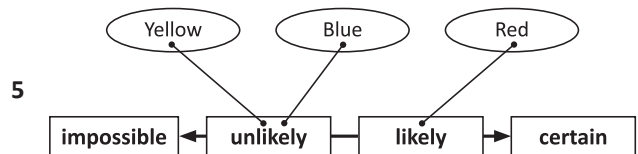


- 2 likely;
certain;
impossible;
unlikely

3a Red

b Yellow

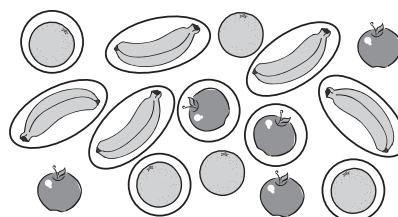
4a–d Answers will vary.



6a likely

b impossible

7 Answers will vary
Sample answer:



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Pages 16–17

- 1a Observe students.
- b Answers will vary.
- c Answers will vary.

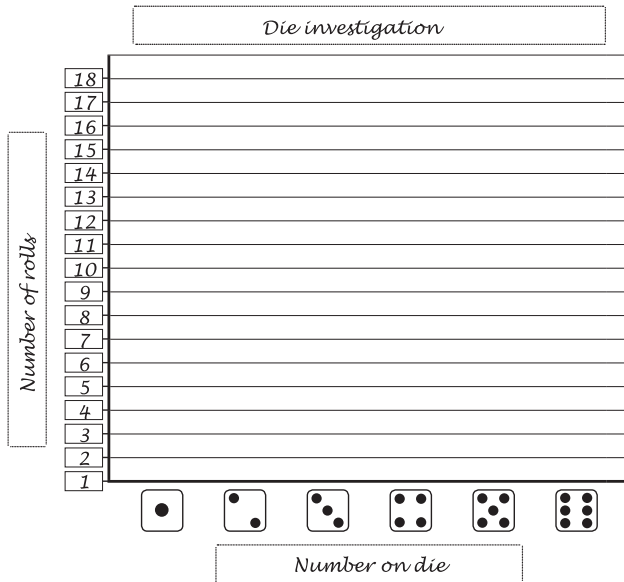
Page 18

- 1a–c Answers will vary.
- 2a–c Answers will vary.

Pages 19–20

- 1 6, 6, even
- 2 Answers will vary.
- 3 Answers will vary.

4



a–e Answers will vary.

Page 21

What to do

Observe students.

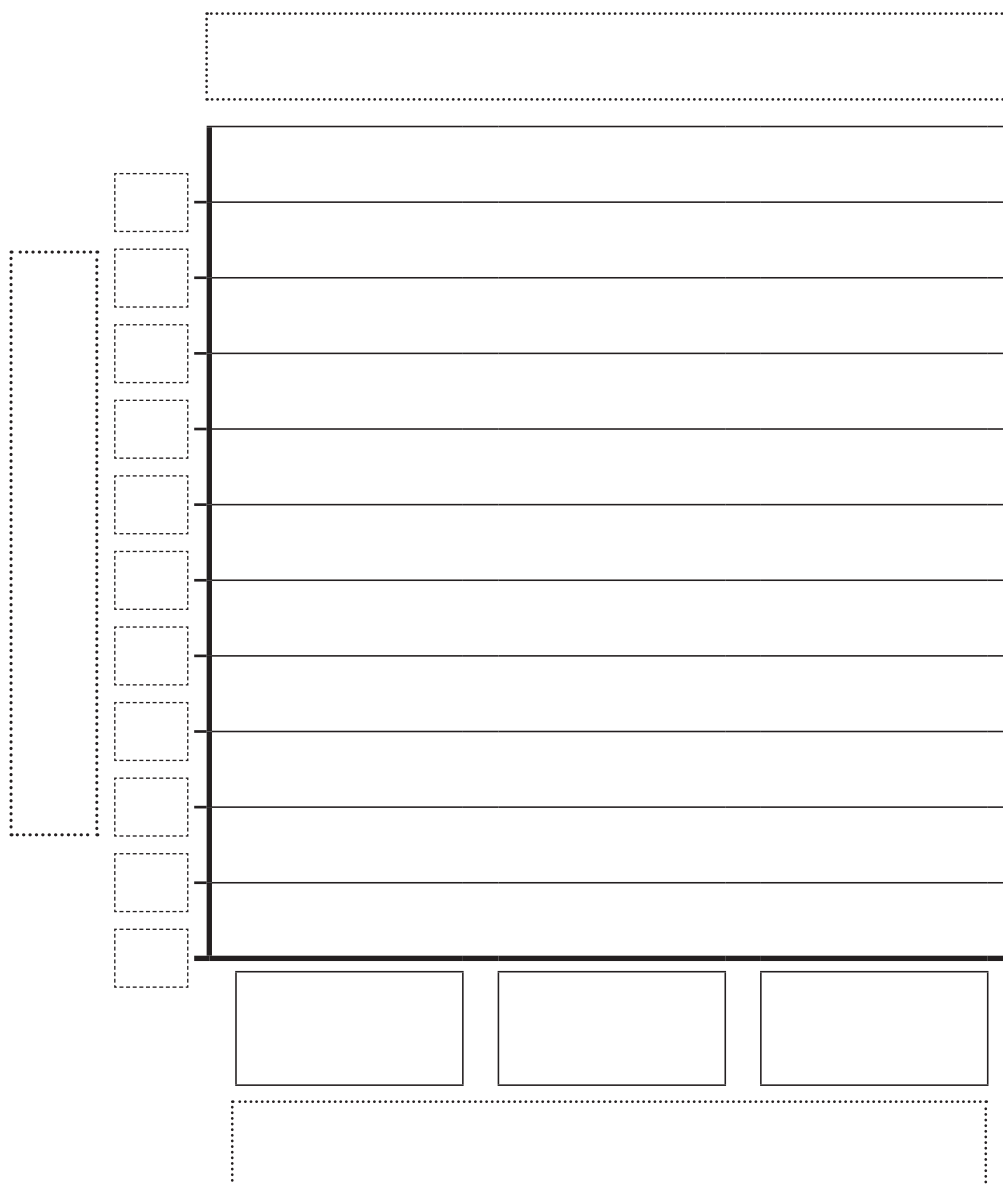
What to do next

Answers will vary.

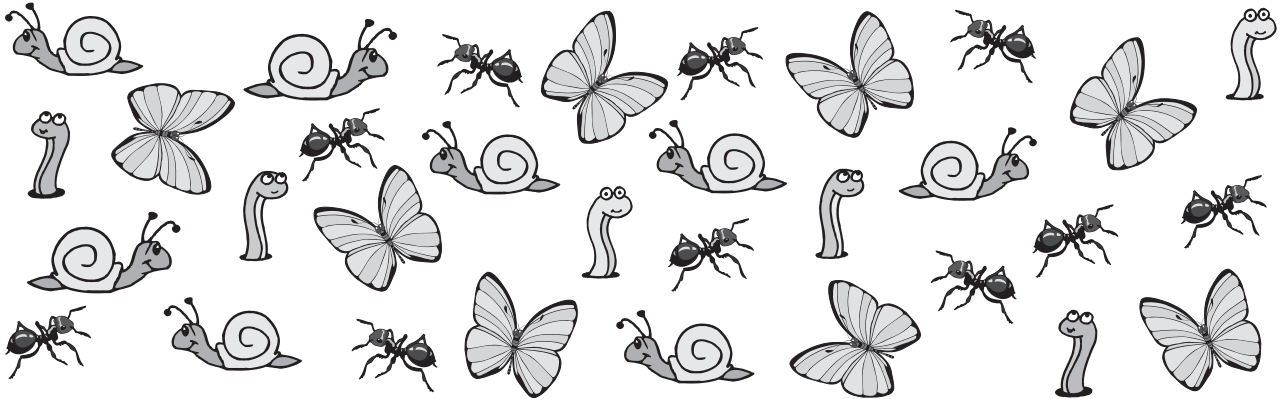
- 1 All the children in a school were surveyed to find their favourite food. This was what was found:

Favourite foods	Children
Pizza	45
Pasta	50
Burgers	35

Create a bar chart to show these results, with a scale of 1 to 5. Each division in the chart will represent 5 children. Fill in the scale, add labels and a title to the chart.



2 A group of children went on a mini-beast hunt and this is what they saw:



Represent this data in a pictogram below:

Butterflies	
Worms	
Snails	
Ants	

In this pictogram a scale is used. Each picture represents 2 of each mini-beast.

Skills	Not yet	Kind of	Got it
• Formulates questions that can be answered with data			
• Calculates tallies			
• Constructs a bar chart showing one-to-one correspondence			
• Constructs a pictogram and includes a key			
• Constructs a bar chart with a scale			

- 3** At a sports carnival, students were allowed to bring either pom-poms or a mascot or both in the colours of their team. This carroll diagram shows what a group of students brought.

	Pom-poms			No pom-poms	
Mascot	Molly Lexie	Bianca Brigit	Jo	Alex Rachel	Nick
No mascot	Will	Charlie	Sam	Cam Wes	Max Callum

- a How many kids brought only pom-poms? _____
- b How many kids brought only mascots? _____
- c What did Charlie bring? _____
- d Name one person who brought both a mascot and a pom-pom. _____
- e How many kids brought neither a pom-pom or a mascot? _____

- 4** Sort this data by writing the names into the carroll diagram below:

- Marley and Tom both have a cat and a dog.
- Cassie just has a cat.
- Bri just has a dog.
- Tess and Sia don't have any pets.

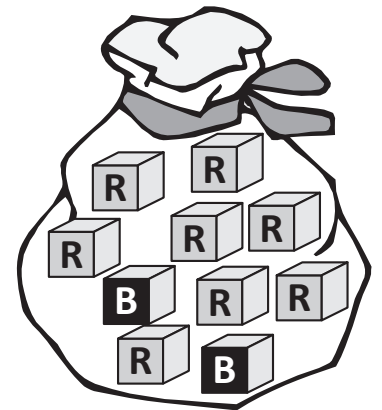
	Marley	Cassie	Bri	Tess	Sia	Tom
	Cat			No cat		
Dog						
No dog						

Skills	Not yet	Kind of	Got it
<ul style="list-style-type: none"> • Interprets and sorts data from a carroll diagram 			

1 Read each statement and circle the chance of it happening:

	Event	Chance
a	You will find an elephant hiding under your bed.	impossible / unlikely / likely / certain
b	Sunday will come after Saturday.	impossible / unlikely / likely / certain
c	Every student in your class will choose red as their favourite colour.	impossible / unlikely / likely / certain
d	It will be sunny every day this week.	impossible / unlikely / likely / certain

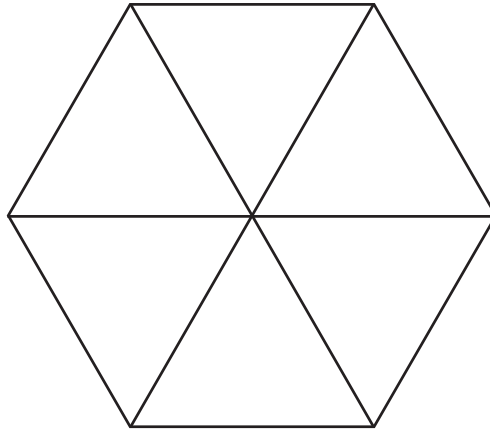
2 Look at this bag of counters. Connect each colour to the chance arrow that you think best describes the chance of pulling out each colour:



Skills	Not yet	Kind of	Got it
• Labels events as being impossible, unlikely, likely or certain			
• Identifies potential outcomes in a simple chance situation			

- 3 The results of a spinner are shown in this table. Colour the spinner to show what the spinner is likely to look like:

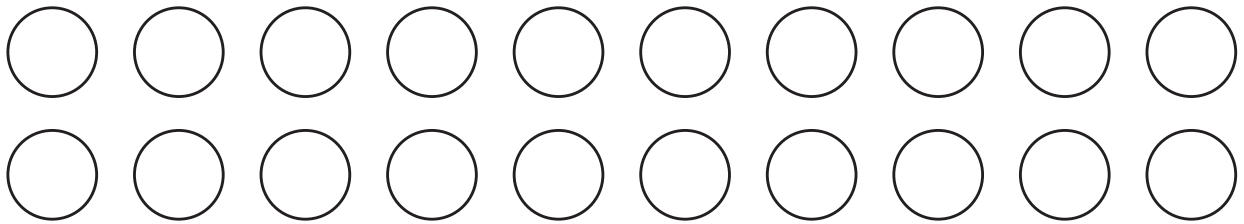
Spinner experiment		
Red	Blue	Green
5	12	3



For this page you will need a red, blue and a green coloured pencil.



- 4 Jo tossed a counter 20 times. One side was blue and the other side was red. Show what her results could have looked like. Use B for blue and R for red.



- 5 Is 6 the luckiest number in board games? Why or why not?

Skills	Not yet	Kind of	Got it
• Connects results of simple chance experiments with the object used			
• Explains likelihood of a die number			

Series D – Statistics – Student Progress Record

Name _____ Class _____ Date _____

What went well: _____

What I need to improve: _____



Series D – Statistics – Student Progress Record

Name _____ Class _____ Date _____

What went well: _____

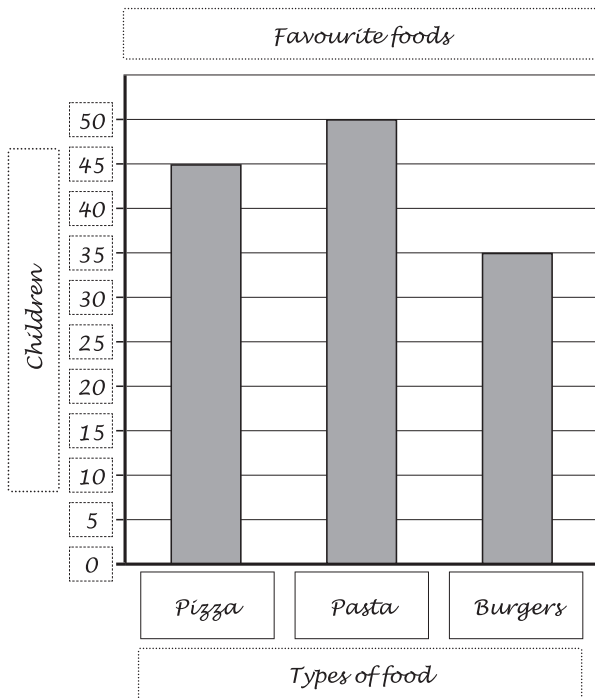
What I need to improve: _____

Series D – Statistics

ASSESSMENT ANSWERS

Pages 4–6

1



2

Mini-beasts that we saw

Butterflies	
Worms	
Snails	
Ants	

3a 3

b 3

c pom-poms

d Molly

e 4

4

	Marley	Cassie	Bri	Tess	Sia	Tom
	Cat			No cat		
Dog	Marley		Tom			Bri
No dog		Cassie		Tess		Sia

Pages 7–8

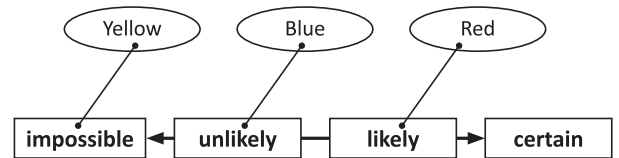
1a impossible

b certain

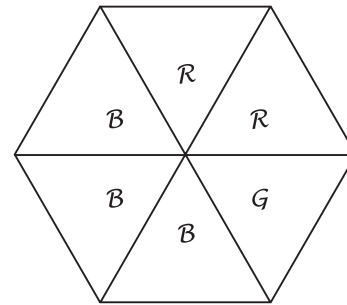
c unlikely

d unlikely or likely

2



3



4 Answers will vary but should show it to be half blue, half red or close to half.

5 Answers will vary.

Sample answer:

No because there are 6 different ways that a die could land and 6 different numbers which means there is an even chance for each number 1 to 6.

Series D – Statistics

Topic	Reference	Strand	Objective
Statistics	3S1	Statistics	Interpret and present data using bar charts, pictograms and tables.
Statistics	3S2	Statistics	Solve 1-step and 2-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts, pictograms and tables.
Chance	This content has been included for curricula other than the England National Curriculum.		