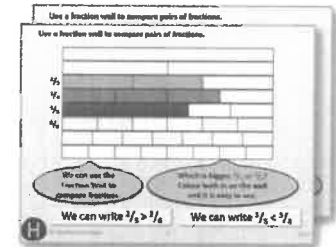


Week 7, Day 1

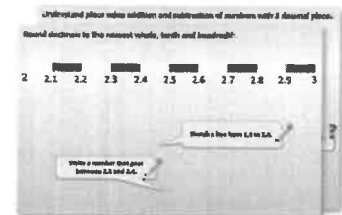
Calculate time intervals

Each day covers one maths topic. It should take you about 1 hour or just a little more.

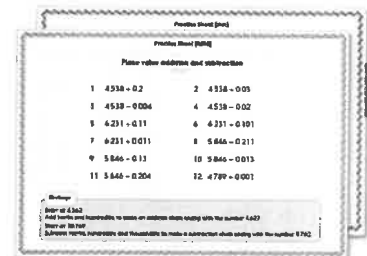
1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.



OR start by carefully reading through the **Learning Reminders**.



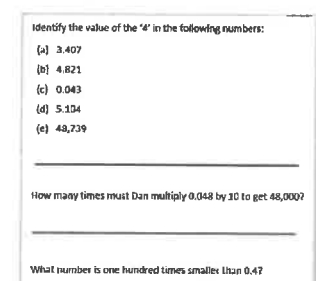
2. Tackle the questions on the **Practice Sheet**.
There might be a choice of either Mild (easier) or Hot (harder)!
Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Have I mastered the topic? A few questions to **Check your understanding**.
Fold the page to hide the answers!



Learning Reminders

Calculate time intervals using the 24-hour clock and add lengths of time.

Write down four events and their times using 12-hour format: one in the morning, one in the afternoon, one in the evening and one at night. Then convert each time to 24-hour format, e.g. teatime is quarter past 4pm so it is 16:15.

Here's an example.

**10:30am 10:30
4:15pm 16:15
8:35pm 20:35
02:45am 02:45**

Now write two times with a difference of 1 hour 45 minutes.

Now think of another pair of times with a 1 hour 45 minute difference, the first between 11am and midday, and the second between midday and 1pm. Write them using the 24-hour clock.

Here's an example.

11:35 12:00 13:00 13:20

25 mins 1 hour 20 mins

1 hour + 25 mins + 20 mins = 1 hour 45 mins

Learning Reminders

Calculate time intervals using the 24-hour clock and add lengths of time.

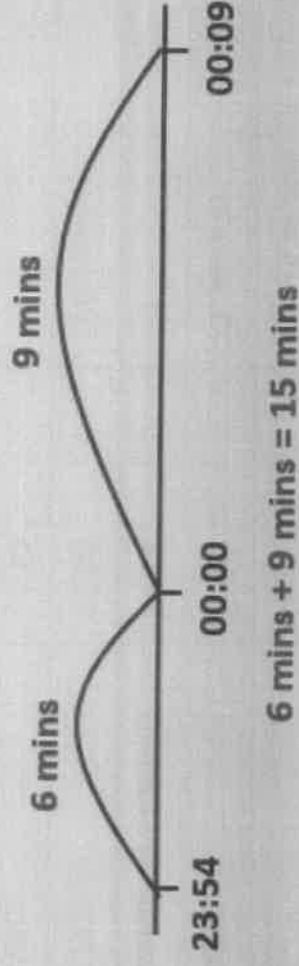
Think of a pair of times where:

- one time is on one day and the second time is on the next day;
- the difference between them is only 15 minutes.

Write them using the 24-hour clock.

23:54 and 00:09

Here's an example.



Practice Sheet Mild

Cinema listings

Fill in the missing information.

Film	Start time	Length of film	Finish time
Screen 1: Tom Ted's Holiday	14:20	75 minutes	
Screen 2: Molly the Mischievous Meerkat	14:35		15:55
Screen 1: Superheroes Reunite	15:50	100 minutes	
Screen 2: Voyage to Venus	16:10		17:50
Screen 1: The Legend of Zanak	19:15	125 minutes	
Screen 2: Journeys of Magical Mystery	19:30		21:45

Challenge

1. Work out how long each screen is empty between the first and second film.
2. Work out the total film time for each screen. Write each answer in hours and minutes.
3. Is there time to show 'Battlecats' before 'The Legend of Zanak'? Battlecats has a running time of 1 hour 50 minutes.

Practice Sheet Hot Cinema listings

Fill in the start times.

Film	Start time	Length of film	Finish time
Screen 1: Andy the aardvark's adventures		80 minutes	15:35
Screen 2: Tina the trainee superhero		75 minutes	15:40
Screen 1: Return of the dinosaurs		90 minutes	17:20
Screen 2: Planet rescue		95 minutes	17:30
Screen 1: Journey to Jupiter		130 minutes	21:20
Screen 2: The last sunrise		115 minutes	21:25

Practice Sheets Answers

Cinema listings (mild)

Film	Start time	Length of film	Finish time
Screen 1: Tom Ted's Holiday	14:20	75 minutes	15:35
Screen 2: Molly the Mischievous Meerkat	14:35	80 minutes	15:55
Screen 1: Superheroes Reunite	15:50	100 minutes	17:30
Screen 2: Voyage to Venus	16:10	100 minutes	17:50
Screen 1: The Legend of Zanuk	19:15	125 minutes	21:20
Screen 2: Journeys of Magical Mystery	19:30	135 minutes	21:45

Challenge

- Between the first and second film Screen 1 is empty for 15 minutes and Screen 2 is also empty for 15 minutes.
- The total film time on each screen is:
Screen 1: 300 minutes / 5 hours
Screen 2: 315 minutes / 5 hours 15 minutes.
- There isn't enough time to show Battlecats as there is only 1 hour 45 minutes between Superheroes Reunite and The Legend of Zanuk, Battlecats is 1 hour 50 minutes long.

Cinema listings (hot)

Film	Start time	Length of film	Finish time
Screen 1: Andy the aardvark's adventures	14:15	80 minutes	15:35
Screen 2: Tina the trainee superhero	14:25	75 minutes	15:40
Screen 1: Return of the dinosaurs	15:50	90 minutes	17:20
Screen 2: Planet rescue	15:55	95 minutes	17:30
Screen 1: Journey to Jupiter	19:10	130 minutes	21:20
Screen 2: The last sunrise	19:30	115 minutes	21:25

A Bit Stuck? Time to time

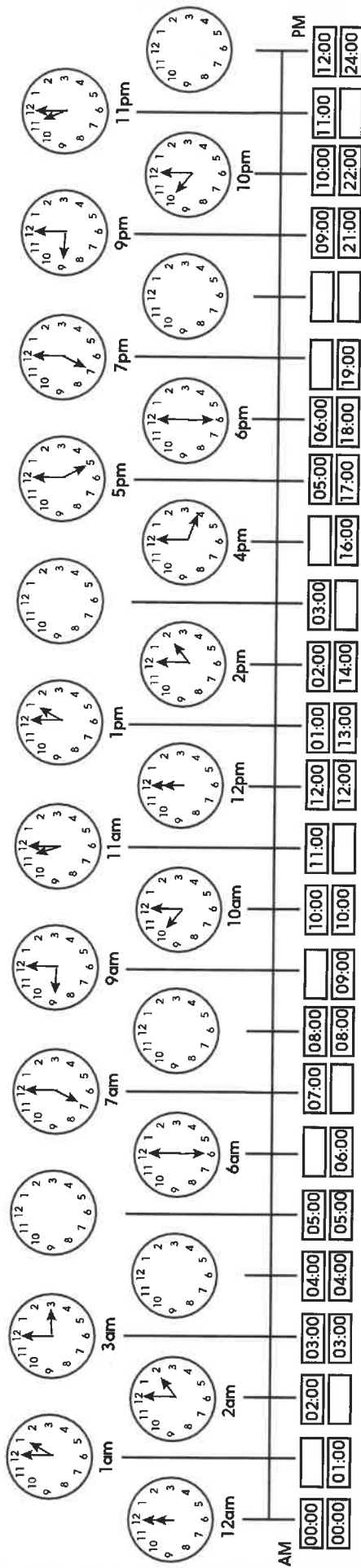
Work in pairs, but record your work on your own sheet

What to do:

Fill in the missing times on the time line.

Things you will need:

- A pencil



S-t-r-e-t-c-h:

Mark on a time between 13:00 and 14:00. Work out how many minutes it is before 2pm.

Mark on a time between 16:00 and 17:00. Work out how much time is left before 8pm.

Mark on a time between 20:00 and 21:00. Work out how much time is left before midnight.

Learning outcomes:

- I can convert times from am/pm to 24-hour clock and vice versa.
- I am beginning to say how long it is to the next hour.

Check your understanding

Questions

Here is the time each child goes to sleep.

Find out what time they each wake up if the first two sleep 9 hours and the second two sleep 9.5 hours.

Amit: asleep at 22:00

Anja: asleep at 21:45

Sunil: asleep at 21:55

Asha: asleep at 22:30

Which of these times would **not** change if you were using 24-hour clock?

- 3 o'clock in the middle of the night.
- Quarter to 2 after lunch
- Midnight
- Twenty past midday.
- 6pm

Use 24-hour clock to write any that *will* change.

Check your understanding

Answers

Here is the time each child goes to sleep.

Find out what time they each wake up if the first two sleep 9 hours and the second two sleep 9.5 hours.

Amit: asleep at 22:00 wakes at 07:00

Anja: asleep at 21:45 wakes at 06:45

Sunil: asleep at 21:55 wakes at 07:25

Asha: asleep at 22:30 wakes at 08:00

Children should be writing the digital times correctly, with 4 digits and a colon separating hours and minutes. A good way to solve these is to count on from the starting time using an empty timeline.

Which of these times would *not* change if you were using 24-hour clock? All change apart from twenty past midday and 3 o'clock in the middle of the night.

Use 24-hour clock to write any that will change:

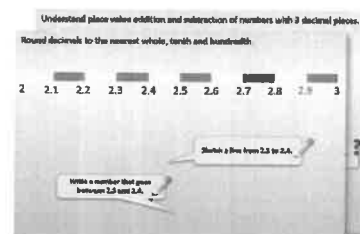
- 3 o'clock in the middle of the night. 03:00 - doesn't change.
- Quarter to 2 after lunch 13:45.
- Midnight 00:00.
- Twenty past midday. 12:20 – doesn't change.
- 6pm 18:00.

Week 7, Day 2

24-hour timetables

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



2. Tackle the questions on the **Practice Sheet**. There might be a choice of either Mild (easier) or Hot (harder)! Check the answers.

Practice sheet (Mild)	
Place value addition and subtraction	
1. $4.538 + 0.2$	2. $4.538 - 0.03$
3. $4.538 - 0.004$	4. $4.538 - 0.03$
5. $4.231 + 0.11$	6. $4.231 - 0.101$
7. $0.231 + 0.011$	8. $5.846 - 0.213$
9. $5.846 - 0.13$	10. $5.846 - 0.13$
11. $5.846 - 0.204$	12. $4.789 + 0.001$

3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Think you've cracked it? Whizzed through the Practice Sheets? Have a go at the **Investigation...**

Learning Reminders

Read timetables using the 24-hour clock; Calculate time intervals (at least 3 hours).

- Deidre is trying to find out if it is possible to travel from Thurso (the most northern rail station in the UK) to Penzance (the most southerly) in under 24 hours. She is going from near John O'Groats in Scotland to the end of Cornwall!
- Deidre has planned a journey where she will catch five trains and has found the following train times...

Depart	Arrive
Thurso 16:29	Inverness 20:10
Inverness 20:38	Crewe 05:32
Crewe 05:47	Birmingham 06:58
Birmingham 07:12	Bristol 08:41
Bristol 09:13	Penzance 13:18

Which 'legs' of the journey take place in the evening?
Overnight? In the morning? Afternoon?

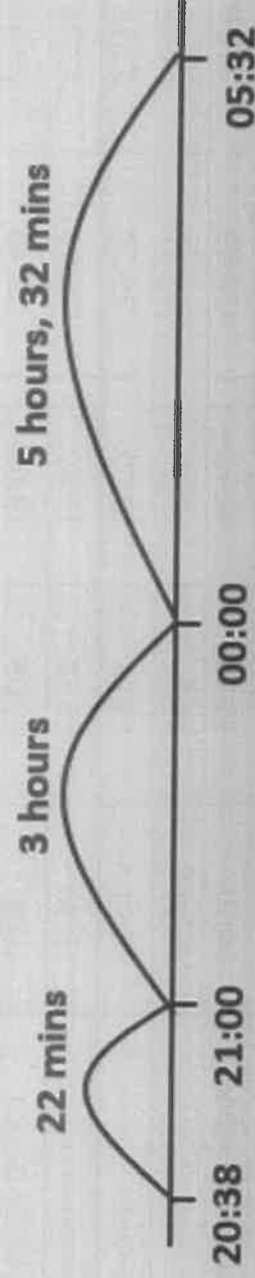
Does the whole train journey take less than 24 hours?
How can you tell?

Learning Reminders

Read timetables using the 24-hour clock; Calculate time intervals (at least 3 hours).

Depart	Arrive
Thurso 16:29	Inverness 20:10
Inverness 20:38	Crewe 05:32
Crewe 05:47	Birmingham 06:58
Birmingham 07:12	Bristol 08:41
Bristol 09:13	Penzance 13:18

What do you notice about the second journey (Inverness to Crewe)?
Let's use a timeline to calculate the journey time...



$$5 \text{ hours} + 3 \text{ hours} + 32 \text{ mins} + 22 \text{ mins} = 8 \text{ hours } 54 \text{ mins}$$

Practice Sheet Mild

Reading timetables

Penzance	12:54	14:00	16:00	17:38	19:13
Truro	13:34	14:41	16:42	18:23	19:52
St Austell	13:50	14:59	17:00	18:40	20:09
Bodmin Parkway	14:10	15:18	17:22	18:59	20:29
Liskeard	14:23	15:32	17:36	19:12	20:43
Plymouth	14:51	15:57	17:59	19:37	21:18
Newton Abbot	15:30	16:38	18:42	20:18	22:04
Exeter St Davids	16:00	17:00	19:03	20:40	22:38

After her epic end-to-end train journey, Deidre's train from Thurso finally gets into Penzance at 13:18.

- Which is the first train she can catch home from Penzance to Exeter? What time would she get to the station in Exeter? Where is the first stop on this train? How long does it take to get there?
- She decides to stretch her legs, have some lunch and then do some shopping in Penzance before setting off for home. What train might she catch? What time would she get to Exeter? How long would this take?
- She's just had a text to say that some of her friends can meet her at Plymouth station at 6pm and take her for a celebratory meal before taking her home. So she decides to stay a while in Penzance. What's the last train she can catch to meet her friends? How long will this journey take?
- Some of the trains are slower than others because some stop at smaller station in between Penzance and Truro. Which is the slowest train between Penzance and Truro, and which is the fastest?



Practice Sheet Hot Reading timetables

Penzance	12:54	14:00	16:00	17:38	19:13
Truro	13:34	14:41	16:42	18:23	19:52
St Austell	13:50	14:59	17:00	18:40	20:09
Bodmin Parkway	14:10	15:18	17:22	18:59	20:29
Liskeard	14:23	15:32	17:36	19:12	20:43
Plymouth	14:51	15:57	17:59	19:37	21:18
Newton Abbot	15:30	16:38	18:42	20:18	22:04
Exeter St Davids	16:00	17:00	19:03	20:40	22:38

After her epic end-to-end train journey, Deidre's train from Thurso finally gets into Penzance at 13:18.

1. Which is the first train she can catch home from Penzance to Exeter?
What time would she get to the station in Exeter? How long would this take?
2. She decides to stretch her legs, have some lunch and then do some shopping in Penzance before setting off for home.
What train might she catch? What time would she get to Exeter? How long would this take?
3. She's just had a text to say that some of her friends can meet her at Plymouth station at 6pm and take her for a celebratory meal before taking her home. They tell her to catch the 16:00 train.
What time will she get into Plymouth? How long will this journey take?
4. Some of the trains are slower than others (because some stop at smaller station in between).
Which is the slowest train, between Penzance and Exeter, and which is the fastest?

Practice Sheets Answers

Reading timetables (mild)

1. The next train is at 14:00, she will get to Exeter at 17:00. The first stop is Truro, this will take 41 minutes.
2. If she gets the 16:00, she will get to Exeter at 19:03, 3 hours and 3 minutes.
If she gets the 17:38, she will get to Exeter at 20:40, 3 hours and 2 minutes.
If she gets the 19:13, she will get to Exeter at 22:38, 3 hours and 25 minutes.
3. The last train that she can get to meet her friends at 6pm is the 16:00. She will get into Plymouth at 17:59, the journey will take 1 hour and 59 minutes.
4. The slowest train is the 17:38, the fastest train is the 19:13.

Reading timetables (hot)

1. The next train is at 14:00, she will get to Exeter at 17:00. This will take 3 hours.
2. If she gets the 16:00, she will get to Exeter at 19:03, 3 hours and 3 minutes.
If she gets the 17:38, she will get to Exeter at 20:40, 3 hours and 2 minutes.
If she gets the 19:13, she will get to Exeter at 22:38, 3 hours and 25 minutes.
3. She will get into Plymouth at 17:59, the journey will take 1 hour and 59 minutes.
4. The slowest train is the 19:13, the fastest train is the 14:00.

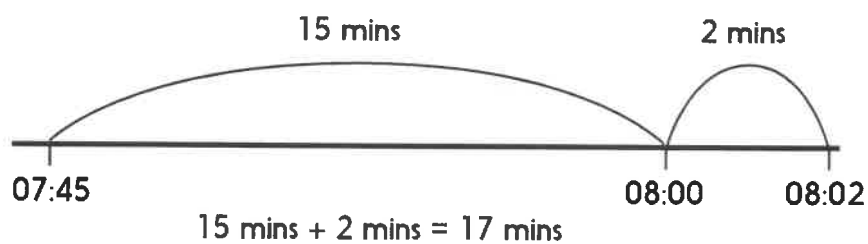
A Bit Stuck? Hogwarts train timetable

Route number	71	97	53	35	61	47	67
Diagon Alley	07:45	08:45	09:00	14:15	15:00	15:50	19:35
Kings Cross	08:02	09:02	09:17	14:45	15:17	16:07	19:52
Little Whinging	09:15	10:15	-----	16:37	-----	17:20	-----
Otterby St Catchpole	12:45	13:50	-----	20:21	-----	20:50	-----
Gretna Green	18:50	-----	15:33	-----	-----	-----	05:02
Hogwarts	20:58	-----	18:25	-----	23:55	-----	07:36
Hogsmeade	21:07	-----	18:34	-----	00:04	-----	07:45

For each route, find how long the train takes between Diagon Alley and Kings Cross. What do you notice?

Investigate journey times between other pairs of stations. In each case, find the quickest and the slowest journey times.

Draw timeline jottings to help you.
e.g.



Investigation Steam train day out

You will need:

- North Yorkshire Moors steam railway summer timetable (see resource)
- Some tourists want to stop at each station and explore every place that the steam train visits.
- Find a way to leave Pickering, get off at every station, get back on a different train each time, then return directly from Whitby to Pickering at the end of the day.
- Work out an itinerary, including how long they can spend at each place.

Some questions *For each question, be sure to explain your ideas fully...*

1. Do you think the tourists will get the most out of each location, given the time they can spend in each?
2. If you were planning a day out, how many places would you stop at? Do you get the same amount of time at each stop?
3. Can you find an itinerary that makes the best use of the time if you stop off at three different places? Explain your choices.
4. Is it possible to plan a day with lunch at Whitby and still stop and get off at every station?

Investigation resource

North Yorkshire Moors steam railway summer timetable

Pickering	Depart	09:00	11:00	12:00	13:00	15:00	-	16:00	-
Levisham	Depart	09:19	11:20	12:20	13:20	15:20	-	16:20	-
Newtondale	Request	-	11:29	12:29	13:29	15:29	-	16:29	-
Goathland	Depart	09:47	11:50	12:50	13:50	16:10	-	16:50	-
Grosmont	Arrive	10:00	12:03	13:03	14:03	16:23	-	17:03	-
Grosmont	Depart	10:13	-	13:13	-	-	16:38	-	-
Whitby	Arrive	10:35	-	13:35	-	-	17:00	-	-

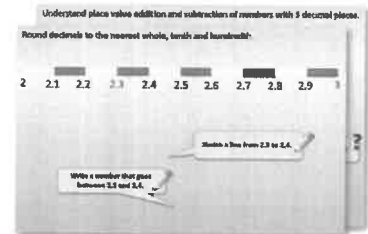
Whitby	Depart	-	11:00	-	-	14:00	-	-	17:30
Grosmont	Arrive	-	11:22	-	-	14:22	-	-	17:50
Grosmont	Depart	10:30	11:30	-	13:30	14:30	-	16:30	18:00
Goathland	Depart	10:50	11:50	-	13:50	14:50	-	16:50	18:15
Newtondale	Request	11:03	12:03	-	14:03	15:03	-	17:03	-
Levisham	Depart	11:20	12:20	-	14:20	15:20	-	17:20	18:40
Pickering	Arrive	11:40	12:40	-	14:40	15:40	-	17:40	19:00

Week 7, Day 3

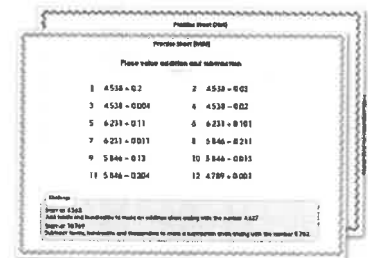
Solving equations

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



2. Tackle the questions on the **Practice Sheet**. There might be a choice of either Mild (easier) or Hot (harder)! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Think you've cracked it? Whizzed through the Practice Sheets? Have a go at the **Investigation...**

Learning Reminders

Express missing number problems algebraically.

$$25 + a = 30$$

This is called an equation and 'a' stands for a mystery number.



$$6b = 42$$

? What is b?



If 6 times something is 42, then the something must be... 7

$$35 \div c = 7$$

? What is c?



We can think of this as 7 lots of something makes 35, so c is... 5.

Learning Reminders

Express missing number problems algebraically.

$$3e + 1 = 18 - 5$$

$$3e + 1 = 13$$

$$3e = 12$$

$$\text{So } e = 4$$

Which part can we work out first?



This one needs a bit of working out first.

The = sign acts like the balance point in the middle of a see saw...

To keep it balanced, we must change one side of the balance by the same amount as the other. So, if we subtract 1 from one side of the = sign, we must do the same to the other.

$$3 \times 5 = 17 - d$$

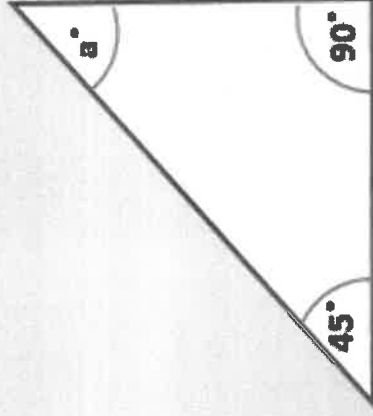
First, we need to calculate 3×5 .

$15 = 17 - d$, so d must be...?

?

Learning Reminders

Express missing number problems algebraically.

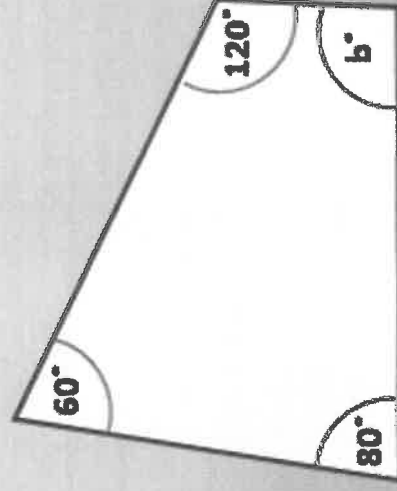


What is the total of the angles
inside a triangle?
How can we find a ? **?**

$$90^\circ + 45^\circ + a^\circ = 180^\circ$$

$$135^\circ + a^\circ = 180^\circ$$

$$\text{So } a = 45^\circ$$



What is the total of the angles
inside a quadrilateral?
How can we find b ? **?**

$$80^\circ + 60^\circ + 120^\circ + b^\circ = 360^\circ$$

$$260^\circ + b^\circ = 360$$

$$\text{So } b = 100^\circ$$

Practice Sheet Mild

Solving equations

Solve these equations:

1. $7 + a = 12$

12
7 a

2. $15 - b = 8$

15
8 b

3. $2c = 24$

24
c c

4. $d - 2 = 18$

d
18 2

5. $e + 10 = 23$

23
e 10

6. $4f = 24$

24
f f f f

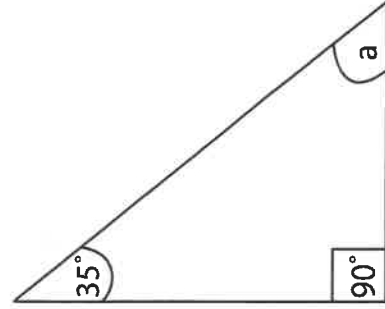
7. $g \div 3 = 4$

g
3 3 3 3

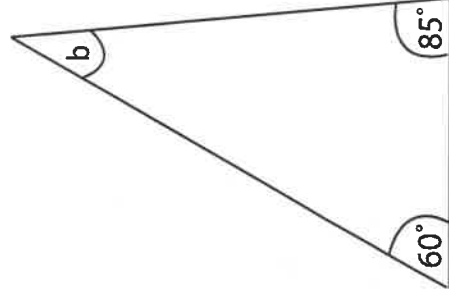
8. $20 \div h = 5$

20
h h h h h

9. $90^\circ + 35^\circ + a = 180^\circ$



10. $60^\circ + 85^\circ + b = 180^\circ$



Practice Sheet Hot Solving equations

Solve these equations:

1. $15 - a = 7$

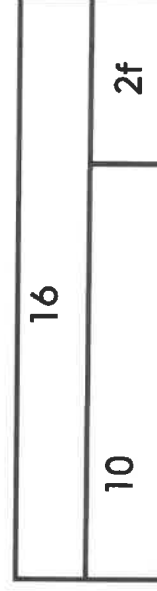
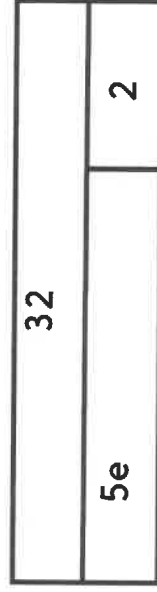
3. $4c = 48$

2. $8 + b = 13$

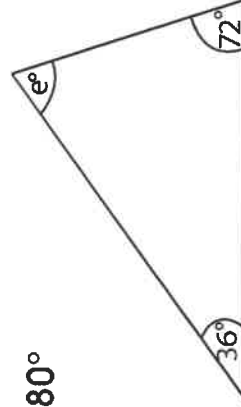
4. $90 \div d = 3$

5. $5e + 2 = 32$

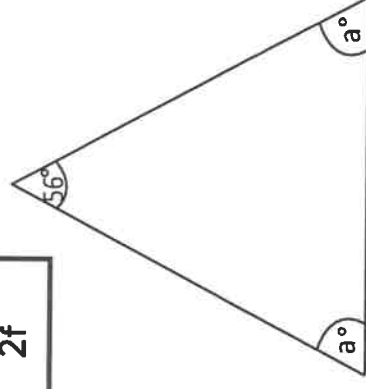
6. $10 + 2f = 16$



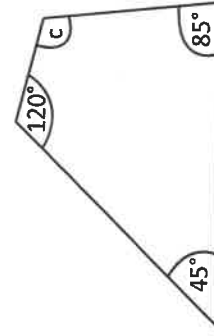
7. $72^\circ + 36^\circ + e = 180^\circ$



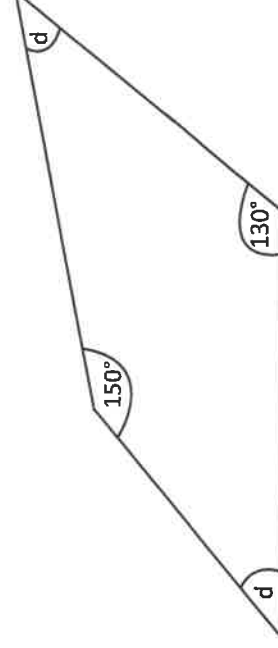
8. $56^\circ + 2a = 180^\circ$



9. $45^\circ + 85^\circ + 120^\circ + c = 360^\circ$



10. $130^\circ + 150^\circ + 2d = 360^\circ$



Practice Sheets Answers

Solving equations (mild)

1. $a = 5$
2. $b = 7$
3. $c = 12$
4. $d = 20$
5. $e = 13$
6. $f = 6$
7. $g = 12$
8. $h = 4$
9. $a = 55^\circ$
10. $b = 35^\circ$

Solving equations (hot)

1. $a = 8$
2. $b = 5$
3. $c = 12$
4. $d = 30$
5. $e = 6$
6. $f = 3$
7. $e = 72^\circ$
8. $a = 62^\circ$
9. $c = 110^\circ$
10. $d = 40^\circ$

A Bit Stuck? Mystery calculations

$$27 + \square = 30$$

$$\square \times 5 = 35$$

$$\square - 35 = 65$$

$$45 \div \square = 9$$

We can rewrite these mystery calculations with letters instead of empty boxes.

$$27 + a = 30$$

$$b \times 5 = 35$$

$$c - 35 = 65$$

$$45 \div d = 9$$

The letters just stand for mystery numbers. We've used a different letter in each number sentence so we don't get confused.

Let's solve the equations (number sentences) to find what each letter stands for, e.g.

$$94 + \square = 100$$

Choose a new letter to use instead of box – any letter is fine!

Rewrite the number sentence:

$$94 + \square = 100$$

Work out what your letter stands for.

Repeat for the following, choose a different letter for each one.

$$\square \times 4 = 36$$

$$\square \times 4 = 36$$

$$80 - \square = 48$$

$$80 - \square = 48$$

$$\square \div 2 = 54$$

$$\square \div 2 = 54$$

Investigation Algebra chain

$a + 15 = 20$	$a =$
$ab = 40$	$b =$
$c \div b = 2$	$c =$
$d - c = 24$	$d =$
$de = 120$	$e =$
$ae = 15$	check!



- Work out what a represents in the first equation.
- a represents the same number in the second equation. So, use 5 instead of a to work out what b represents, i.e. $5 \times b = 40$.
- Now work out b , use this in the third equation, work out c , use this in the next equation and so on.
- The last equation is a check! If your answers for a and e don't multiply to make 15, you have made a mistake somewhere.

Challenge

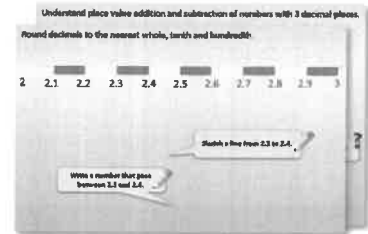
Can you create a similar chain of equations?

Week 7, Day 4

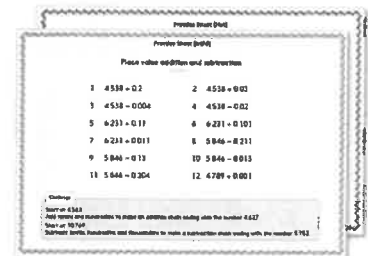
Algebra puzzles

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



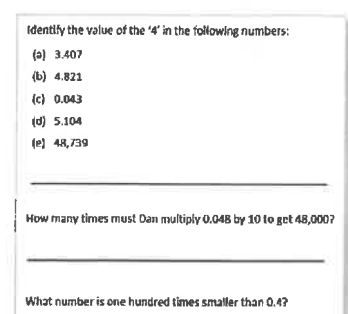
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either Mild (easier) or Hot (harder)! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



Learning Reminders

Express missing number problems algebraically.

The outside red numbers are multiplied to give the blue numbers in the central part of the table. Our challenge is to work out what letters 'a', 'b' and 'c' represent.

What do we multiply by 3 to give 21?

x	3	b
a	21	56
c	12	32

$$3a = 21, \text{ so } a = 7$$

$$ab = 56 \text{ but we know } a = 7, \text{ so } 7b = 56, \text{ so } b = 8$$

How can we work out what c represents?

$$\text{We can check } bc = 32. \\ 8 \times 4 = 32.$$

$$3c = 12 \\ \text{So } c = 4$$

Learning Reminders

Express missing number problems algebraically.

What do the letters d , e
and f represent?

x	d	e
f	60	36
8	40	24

x	5	3
12	60	36
8	40	24

Practice Sheet Mild

Algebra puzzles

The pairs of letters/numbers on the outside of the table are added to give the numbers inside the table. Work out what numbers the letters represent.

+	a	b	c
45	54	65	68
30	39	50	53
26	35	46	49

a =
b =
c =

+	d	e	22
46	76	65	68
24	54	42	46
f	130	119	122

d =
e =
f =

+	g	40	h
51	76	91	102
43	68	83	94
i	100	115	126

g =
h =
i =

Practice Sheet Hot

Algebra puzzles

Work out what numbers the letters represent in these puzzles and problems.

1.

X	a	b
4	20	48
c	35	84

2.

X	e	f
d	24	28
9	54	63

3.

X	12	g
3	36	30
h	72	i

- Jason has k trading cards. Sally has 32. Altogether they have 60 trading cards. How many trading cards does Jason have?
- Maya has 57 books. Eva has m more books than Maya. Altogether they have 120 books. How many more books does Eva have?
- Chef has bought n buns at 20p each. He spent £40. How many buns did he buy?
- Marcus collected 40 shells. He gave p shells to his sister. He was left with 32 shells. How many did he give to his sister?

Practice Sheet Answers

Algebra puzzles (mild)

$a = 9$ $b = 20$ $c = 23$
 $d = 30$ $e = 19$ $f = 100$
 $g = 25$ $h = 51$ $i = 75$










Algebra puzzles (hot)

1. $a = 5$ $b = 12$ $c = 7$
2. $d = 4$ $e = 6$ $f = 7$
3. $g = 10$ $h = 6$ $i = 60$
4. $k = 28$
5. $m = 63$
6. $n = 200$
7. $p = 8$

A Bit Stuck? Algebra puzzles










These puzzles were taken from https://www.mathplayground.com/algebra_puzzle.html, where you can try out lots more!

Your challenge is to work out what number each symbol represents in each puzzle.

			13
			28
			14
21	12	22	










Hint!

Start with the column of guitars.
3 lots of what make 12...?
Now choose one of the rows to work on...

			36
			48
			45
43	46	40	

Hint!

Which row would be good to start with?

			12
			30
			24
21	27	18	










Hint!

Which column would be useful to start with?

A Bit Stuck? Algebra puzzles

These puzzles were taken from https://www.mathplayground.com/algebra_puzzle.html, where you can try out lots more!

Your challenge is to work out what number each symbol represents in each puzzle.

			35
			22
			42
16	29	54	

Hint!

Which row would it be helpful to start with?

Check your understanding

Questions

+	a	b	10
c	18	16	21
8	15	13	18
d	13	11	16

The pairs of letters/ numbers on the 'outside' of the table are **added** to give the numbers inside the table.

Work out what numbers the letters represent.

x	6	e	f
g	54	72	27
h	42	56	21
9	54	72	27

The pairs of letters/ numbers on the outside of the table are **multiplied** to give the numbers inside the table.

Work out what numbers the letters represent.

Fold here to hide answers

Check your understanding

Answers

+	a	b	10
c	18	16	21
8	15	13	18
d	13	11	16

a = 7
b = 5
c = 11
d = 6

x	6	e	f
g	54	72	27
h	42	56	21
9	54	72	27

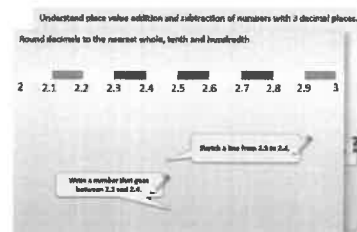
e = 8
f = 3
g = 9
h = 7

Week 7, Day 5

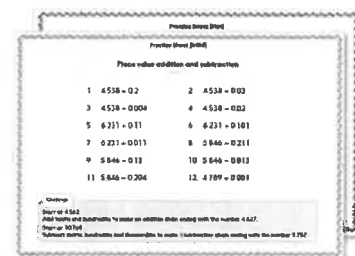
Equations with two unknowns

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



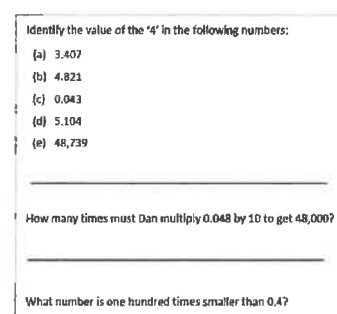
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either Mild (easier) or Hot (harder)! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



Learning Reminders

Find pairs of numbers that satisfy an equation with two unknowns, enumerate possibilities of combinations of two variables.

$$a + b = 10$$

a and b are two new mystery whole positive numbers

What might numbers
a and b might represent?

There are LOTS of
possibilities.

This is a list of pairs of
possibilities.

a	b
10	0
9	1
8	2
7	3
6	4
5	5
4	6
3	7
2	8
1	9
0	10

Learning Reminders

Find pairs of numbers that satisfy an equation with two unknowns, enumerate possibilities of combinations of two variables.

$$c \times d = 24$$

Think what whole numbers c and d might represent.

List ALL the pairs of possibilities on your whiteboard.

c	d
1	24
2	12
3	8
4	6
6	4
8	3
12	2
24	1

Learning Reminders

Find pairs of numbers that satisfy an equation with two unknowns, enumerate possibilities of combinations of two variables.

$$2e + f = 8$$

8	
$2e$	f

Find a pair of whole numbers which will work.

Test out your ideas by substituting for the letters, e.g. if you think 3 and 2 will work, work out $2 \times 3 + 2 = 8$.
So, e could equal 3 and f equal 2. Could e equal 2 and f equal 3? Try it!

Double a number, plus another number makes 8...
if e is 1, then f must be...
if e is 2, then...

Some interesting patterns in this table.

e	f
0	8
1	6
2	4
3	2
4	0

Practice Sheet Mild

Equations with two unknowns

Write the possible pairs of answers for these equations. All answers are whole numbers.

$$a + b = 9$$

$$c \times d = 15$$

$$10 - e = f$$

$$g + h + 1 = 11$$

$$j \times k - 1 = 15$$

$$m + n - 2 = 8$$

$$p \times q = 20$$

$$14 - r = s$$

$$2t + u = 10$$

Challenge

Can you make up a puzzle like this for your partner to solve?

Practice Sheet Hot

Equations with two unknowns

Find a pair of numbers that works in both equations:

$$a + b = 10$$

$$a \times b = 21$$

$$c \times d = 16$$

$$c - d = 6$$

$$e + f = 12$$

$$e - f = 4$$

$$g - h = 9$$

$$g \div h = 4$$

$$j \times k = 72$$

$$j \div k = 2$$

Challenge

Can you make up a puzzle like this for your partner to solve?

Practice Sheets Answers

Equations with two unknowns (mild)

$$a + b = 9$$

$a = 0 \ b = 9, a = 1 \ b = 8, a = 2 \ b = 7, a = 3 \ b = 6, a = 4 \ b = 5, a = 5 \ b = 4, a = 6 \ b = 3,$
 $a = 7 \ b = 2, a = 8 \ b = 1, a = 9 \ b = 0$

$$c \times d = 15$$

$c = 1 \ d = 15, c = 3 \ d = 5, c = 5 \ d = 3, c = 15 \ d = 1.$

$$10 - e = f$$

$e = 0 \ f = 10, e = 1 \ f = 9, e = 2 \ f = 8, e = 3 \ f = 7, e = 4 \ f = 6, e = 5 \ f = 5, e = 6 \ f = 4,$
 $e = 7 \ f = 3, e = 8 \ f = 2, e = 9 \ f = 1, e = 10 \ f = 0$

$$g + h + 1 = 11$$

$g = 0 \ h = 10, g = 1 \ h = 9, g = 2 \ h = 8, g = 3 \ h = 7, g = 4 \ h = 6, g = 5 \ h = 5, g = 6 \ h = 4,$
 $g = 7 \ h = 3, g = 8 \ h = 2, g = 9 \ h = 1, g = 10 \ h = 0$

$$j \times k - 1 = 15$$

$j = 1 \ k = 16, j = 2 \ k = 8, j = 4 \ k = 4, j = 8 \ k = 2, j = 16 \ k = 1$

$$m + n - 2 = 8$$

$m = 0 \ n = 10, m = 1 \ n = 9, m = 2 \ n = 8, m = 3 \ n = 7, m = 4 \ n = 6, m = 5 \ n = 5,$
 $m = 6 \ n = 4, m = 7 \ n = 3, m = 8 \ n = 2, m = 9 \ n = 1, m = 10 \ n = 0$

$$p \times q = 20$$

$p = 1 \ q = 20, p = 20 \ q = 1, p = 2 \ q = 10, p = 10 \ q = 2, p = 4 \ q = 5, p = 5 \ q = 4$

$$14 - r = s$$

$r = 0 \ s = 14, r = 1 \ s = 13, r = 2 \ s = 12, r = 3 \ s = 11, r = 4 \ s = 10, r = 5 \ s = 9, r = 6 \ s = 8,$
 $r = 7 \ s = 7, r = 8 \ s = 6, r = 9 \ s = 5, r = 10 \ s = 4, r = 11 \ s = 3, r = 12 \ s = 2, r = 13 \ s = 1,$
 $r = 14 \ s = 0$

$$2t + u = 10$$

$t = 4 \ u = 2, t = 3 \ u = 4, t = 2 \ u = 6, t = 1 \ u = 8$

Equations with two unknowns (hot)

$$a = 7 \ b = 3 \text{ or } a = 3 \ b = 7$$

$$c = 8 \ d = 2$$

$$e = 8 \ f = 4$$

$$g = 12 \ h = 3$$

$$j = 12 \ k = 6$$

A Bit Stuck? Mystery pairs

1. Two numbers have been multiplied together to make 12: $\square \times \square = 12$

We can use letters to represent each number instead of empty boxes:

$$a \times b = 12$$

There are lots of possible pairs of whole numbers!

This person has started working through some answers. See if you can finish their work.

$1 \times 12 = 12$	$a = 1, b = 12$
$2 \times 6 = 12$	$a = 2, b = 6$
$3 \times$	$a = , b =$
$4 \times$	
$6 \times$	
$12 \times$	

2. Two numbers have been added together to make 9: $\square + \square = 9$

We can use letters to represent each number instead of empty boxes:

$$c + d = 9$$

There are lots of possible pairs of whole numbers!

Your challenge is to find them ALL!

3. Two numbers have been multiplied together to make 18: $\square \times \square = 18$

We can use letters to represent each number instead of empty boxes:

$$e \times f = 18$$

There are lots of possible pairs of whole numbers!

Your challenge is to find them ALL!

Check your understanding Questions

Both a and b are whole numbers.

How many possibilities are there for values of a and b

if $a + 2b = 13$.

$2a$ is 5 more than $3b$.

If a and b are both whole numbers and $a < 10$, what are the possible values for a and b ?

A number less than 10 is multiplied by itself. The answer is equal to a different number multiplied by 9.
What are the possible numbers?

Fold here to hide answers

Check your understanding Answers

Both a and b are whole numbers.

How many possibilities are there for values of a and b

if $a + 2b = 13$. There are 7 solutions.

Since $2 \times$ any number is an even number, a must be odd. Some children may miss the solution where b is 0.

The solutions are:

$a = 1$ and $b = 6$

$a = 3$ and $b = 5$

$a = 5$ and $b = 4$

$a = 7$ and $b = 3$

$a = 9$ and $b = 2$

$a = 11$ and $b = 1$

$a = 13$ and $b = 0$

$2a$ is 5 more than $3b$.

If a and b are both whole numbers and $a < 10$, what are the possible values for a and b ?

Either $a = 7$ and $b = 3$, or $a = 4$ and $b = 1$.

A number less than 10 is multiplied by itself. The answer is equal to a different number multiplied by 9.

What are the possible numbers?

Either $3^2 (= 1 \times 9)$ or $6^2 (= 4 \times 9)$.

What to do today

IMPORTANT Parent or Carer – Read this page with your child and check that you are happy with what they have to do and any weblinks or use of internet.

1. Read the start of a story

- Read *Opening*.
- What do we learn about the characters? Can you think of three important things that we learn about the narrator, Mum and Eric?

2. Think about being an outsider

- Read *When Did I Feel Like an Outsider?*
- Are any of these situations familiar to you? Are there other times that you felt like an outsider?
- Write about a situation that made you feel like an outsider. Explain what happened and how you would describe your feelings.

3. Listen to the whole story of Eric.

- Listen to the whole of the story of Eric and look carefully at the illustrations. Use the **PowerPoint Eric** or watch Ruth Merttens reading the book <https://www.youtube.com/watch?v=H71F0-QrpE>.
- Read *Story Talk Questions*. Think about your answers and then write some of them in clear sentences.

Try the Fun-Time Extras

- Can you find out some more about Shaun Tan? You could start at this website:
<http://www.shauntan.net/books.html>
- Can you interview other people to find out about the strangest visitor they've ever had to their house?

Opening

Some years ago we had a foreign exchange student come to live with us. We found it very difficult to pronounce his name correctly, but he didn't mind. He told us to just call him 'Eric'.

We had repainted the spare room, bought new rugs and furniture and generally made sure everything would be comfortable for him. So I can't say why it was that Eric chose to sleep and study most of the time in our kitchen pantry.

'It must be a cultural thing,' said Mum. 'As long as he's happy.' We started storing food and kitchen things in other cupboards so we wouldn't disturb him.

But sometimes I wondered if Eric *was* happy; he was so polite that I'm not sure he would have told us if something bothered him. A few times I saw him through the pantry door gap, studying with silent intensity, and imagined what it must be like for him here in our country.

from Eric – by Shaun Tan

When did I feel like an outsider?

When meeting new relations
who I haven't met before.

At a party where I didn't know
many people.

In someone else's family.

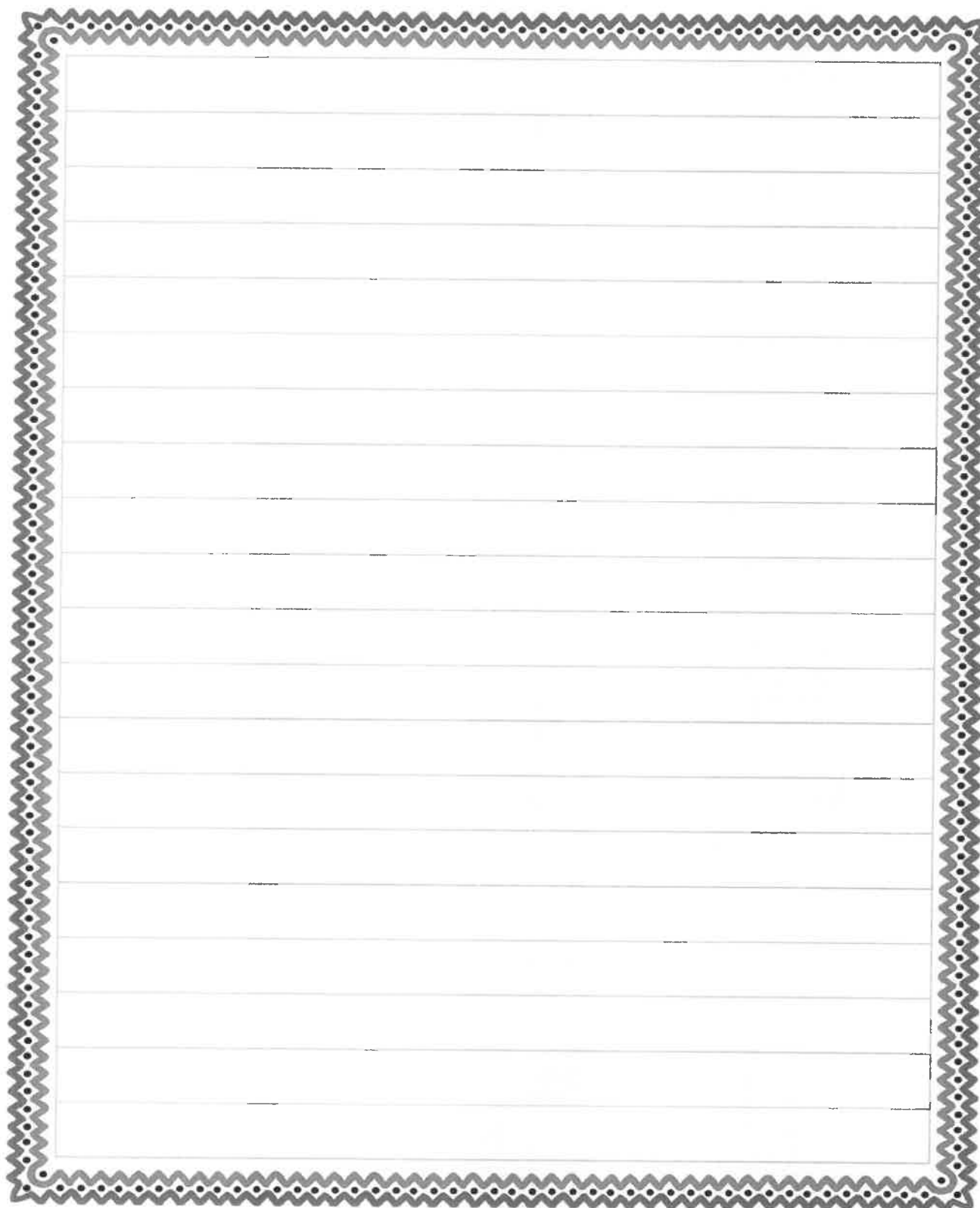
In a new shop or restaurant
where people seem to know
their way around.

When starting a new sport.

After moving house or school.

When travelling to a new and
strange place.

Feeling like an outsider

A large rectangular box with a decorative border. The border consists of a repeating pattern of small dots and zig-zags. Inside the box, there are 20 horizontal lines, providing space for writing.

Story Talk Questions

What did you like about the story? Is there anything that you disliked?	Does it remind you of anything you have ever read? Does it remind you of any situations or people in real life?
What patterns can you find in the story?	What puzzles or questions are you left with?

What to do today

IMPORTANT Parent or Carer – Read this page with your child and check that you are happy with what they have to do and any weblinks or use of internet.

1. Imagine a character's questions

- Look closely at *Eric's Questions*
- What do you think he might be asking? Can you think of three possible questions for each of these pictures?
- If you would like to, watch the story again using the *PowerPoint: Eric* or watch Ruth Merttens reading the book
<https://www.youtube.com/watch?v=H71F0-QrpE>

2. Remind yourself about Pronouns and Determiners

- Use the *PowerPoint on Pronouns and Determiners*. If this is not possible, use the *Revision Card* to remind yourself about these.
- Complete *Pronouns and Determiners Practice*.

3. Now for some writing

- Use words and pictures on the *Planner* to imagine a day out for Eric.
- Write about the day out, using pronouns and determiners for cohesion.

Well done! Share your writing with a grown-up. Show them some of the pronouns and determiners that you have used.

Try the Fun-Time Extras

- Look at the *Endpapers*. These are Shaun Tan's drawings that he puts at the start and finish of his books. What is your favourite drawing? Could you make up a story about it?
- Could you make your own collection of sketches in this style?

Eric's Questions

What might Eric be asking?



From Eric by Shaun Tan

Revision Card – Pronouns and Determiners

<h2>Pronouns</h2> <p>Pronouns are used in the place of a noun.</p> <p>Eric had a hat. <u>Eric</u> put the <u>hat</u> on. Eric had a hat. He put it on.</p> <p>me she mine hers I him her it he yours its</p> <p>Pronouns replace the nouns Eric and hat</p>	<h2>Cohesive devices – Pronouns</h2> <p>Pronouns can be used as cohesive devices.</p> <p>They avoid repetition and make links to what has already been said..</p> <p>Eric had found a hat. The hat was a large one. The hat was far too large to fit on Eric's head. But Eric liked the hat. "The hat is Eric's hat," Eric said.</p> <p>Eric had found a hat. It was a large one. It was far too large to fit on his head. But he liked the hat. "It is mine," he said.</p> <p>The word in pink is a determiner. It comes before and specifies the noun (head) telling us whose head it is.</p>
<h2>Determiners</h2> <p>Determiners go before a noun.</p> <p>They show if a noun is specific or general.</p> <p>a the your those an my her that its his this any</p> <p>Determiners tell us more about the nouns.</p> <p>Eric saw an <u>elephant</u> - any old elephant Eric was amazed at the <u>elephants</u> - the elephants in the zoo <u>Children</u> love <u>elephants</u> - children in general love elephants generally The <u>children</u> loved those <u>elephants</u> - the specified children loved the elephants we know about.</p>	<h2>Cohesive devices – Determiners</h2> <p>Determiners can be used as cohesive devices.</p> <p>They provide cohesion because they make links to what has already been said.</p> <p>the friends that were mentioned earlier the trick that Eric performed with his hat</p> <p>Those friends who had watched the trick asked Eric how he had done it. Eric smiled and shook his head. He would never reveal his secret.</p> <p>Eric shook his own head, where the frog had been Eric's secret about the trick in particular</p> <p>Can you spot the determiners? How do they make links to other parts of the text?</p>

Pronouns and Determiners Practice

A Check your understanding

Identify the pronouns and determiners in these sentences. Underline them in two different colours.

- a) We went to the zoo to see some animals.
- b) Eric took a small packed lunch and I brought mine.
- c) My lunch was the thing Eric was most interested in. He examined my sandwiches.
- d) I did not see his. He kept it wrapped up in a tight package.
- e) It must be a cultural thing, my mum thought.

B Explore cohesion using pronouns

Rewrite this extract, replacing the pronouns with nouns. How does it sound when you read it back?

Secretly I had been looking forward to having a foreign visitor - I had so many things to show him. For once I could be a local expert, a fountain of interesting facts and opinions. Fortunately, Eric was very curious, and he always had plenty of questions. However, they weren't the kind of questions I had been expecting. Most of the time I could only say, 'I'm really not sure' or 'That's just how it is!'

C Explore cohesion using determiners

Think of unexpected questions Eric might ask about the objects. Write them, using determiners to specify more about the nouns, e.g. What would happen if I told this disk a secret? Do these snacks enjoy the film?

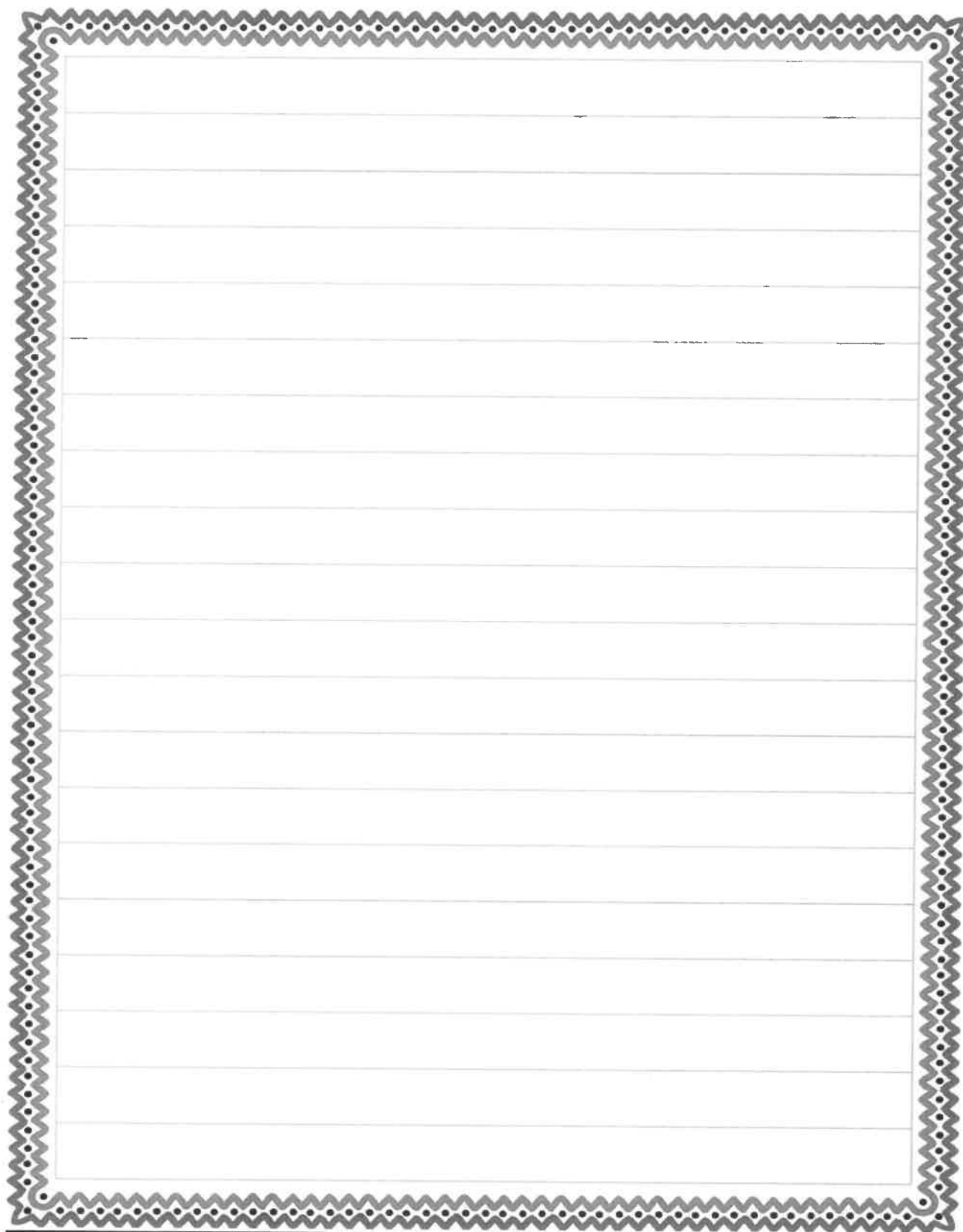


D Imagine a day out with Eric

Imagine you took Eric out for the day. Think about what you might do and how he might surprise you.

[illegible]

Eric's Day Out

A large rectangular area with a decorative border and horizontal lines for writing. The border is a repeating pattern of small dots and zig-zags. The interior is filled with horizontal lines, providing space for writing.

A blank sheet of lined paper with a decorative border. The border is a thick, grey, zigzag line with small black dots at the peaks and valleys. The paper has 20 horizontal lines, creating 19 rows for writing. The lines are evenly spaced and extend across the width of the page.

Endpapers



Pronouns and Determiners Practice - Answers

A Check your understanding

Identify the pronouns and determiners in these sentences. Underline them in two different colours.

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Secretly Shaun had been looking forward to having a foreign visitor - Shaun had so many things to show the foreign visitor. For once Shaun could be a local expert, a fountain of interesting facts and opinions.

Fortunately, Eric was very curious, and Eric always had plenty of questions.

However, the question weren't the kind of questions Shaun had been expecting. Most of the time Shaun could only say, 'Shaun is really not sure' or 'That's just how the situation is!'

C Explore cohesion using determiners

Think of unexpected questions Eric might ask about the objects. Write them, using determiners to specify more about the nouns, e.g. What would happen if I told this disk a secret? Do these snacks enjoy the film?
Examples

Why is this bottle-lid crinkly round the edges? Why isn't it smooth?

Why are some things wrapped in plastic? Why is this wrapper on the ground? What was in it?

What to do today

IMPORTANT Parent or Carer – Read this page with your child and check that you are happy with what they have to do and any weblinks or use of internet.

1. Read the end of the story

- Read *Ending* and then read *Ending Questions*. Think about your answers and then write them as clear sentences.

2. Write a letter

- Use *Letter Planner* to plan a letter to send to Eric (imagine you are the narrator of the story).
- Write your letter carefully.

Well done! Share your writing with a grown-up. Explain why you thought of these particular questions.

3. Practise reading the story

- Practise reading the story out loud. Decide the pace that you will read and the expression that you will use. Find the text for the story here: <https://www.theguardian.com/books/gallery/2009/may/13/shaun-tan-eric-story-pictures>
- When you are ready, read the story to somebody else or make a recording of yourself and send it someone.

Try the Fun-Time Extras

- Watch this animation of Eric's story.
<https://www.youtube.com/watch?v=S3x3Zn-qKSQ>
- Could you try to make your own version of the story? You could use photographs or you could create an animation.

Ending

Nevertheless, none of us could help but be bewildered by the way Eric left our home: a sudden departure early one morning, with little more than a wave and a polite goodbye.

It actually took us a while to realise he wasn't coming back.

There was much speculation over dinner later that evening. Did Eric seem upset? Did he enjoy his stay? Would we ever hear from him again? An uncomfortable feeling hung in the air, like something unfinished, unresolved. It bothered us for hours, at least until one of us discovered what was in the pantry.

Go and see for yourself: it's still there after all these years, thriving in the darkness. It's the first thing we show any new visitors to our house. 'Look what our foreign exchange student left for us,' we tell them.

'It must be a cultural thing,' says Mum.



From Eric by Shaun Tan

Ending Questions

1. Why do you think the family bewildered?
2. Why do you think that Eric chose to leave that way?
3. Have you ever had the feeling of something 'unfinished'. When?
4. How do you think the family felt when they saw the pantry?
5. Where do you think Eric has gone?

Letter Planner

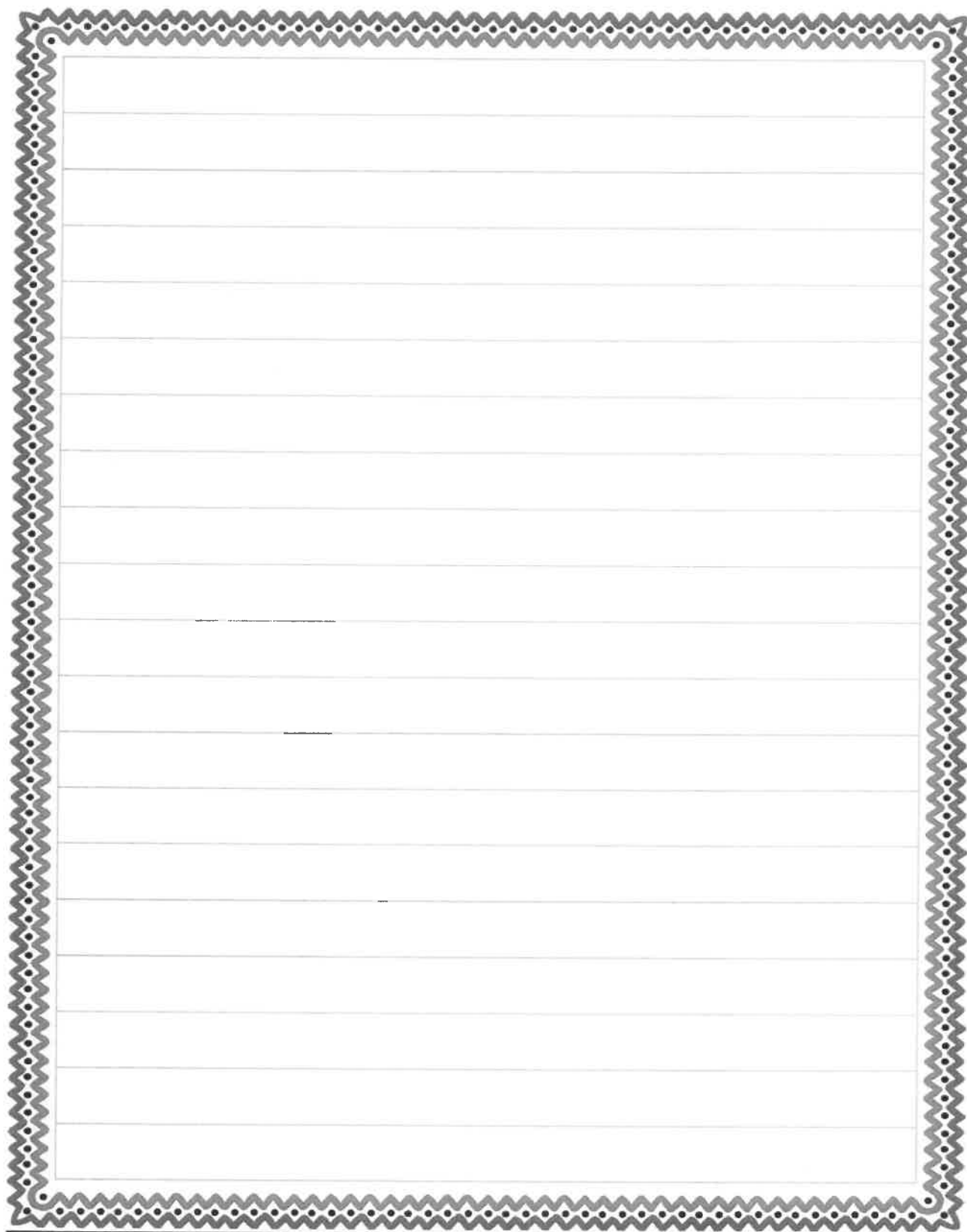
Think of 3-5 points for each section

What might you want to tell Eric?

What might you want to ask Eric?

What hopes might you have for Eric?

Letter to Eric

A large rectangular box with a decorative border. The border consists of a repeating pattern of small dots and zig-zags. Inside the box, there are 20 horizontal lines for writing, spaced evenly apart. The box is intended for a student to write a letter to Eric.

What to do today

IMPORTANT Parent or Carer – Read this page with your child and check that you are happy with what they have to do and any weblinks or use of internet.

1. Read a poem

- Read *Jack and the Beanstalk*. Read it in your head and then read it out loud. Can you find the rhythm of the poem?
- Follow the words as you watch this video of the poem. What do you think are the good points of this performance?

<https://www.youtube.com/watch?v=DLcU650GcjY>

2. Remind yourself about noun phrases

- Use the **PowerPoint** on *noun phrases* or, if this is not possible, remind yourself of these using the *Revision Card*.
- Complete *Expanded Noun Phrases*. Rewrite each sentence, expanding the noun phrase so that it has more information.

3. Now for some writing

- Use the *Planner* to show this version of Jack and the Beanstalk in words and pictures.
- Now write the story. Try to include as much humour as you can.

Well done! Share your writing with somebody else. Which parts of your story did they find funniest?

Try the Fun-Time Extras

- Can you practise reading the poem and make a recording of yourself to share with someone else?
- Can you make some illustrations for your favourite parts of the poem?

Jack and the Beanstalk

Roald Dahl

Jack's mother said, 'We're *stony broke!*

Go out and find some wealthy bloke

Who'll buy our cow. Just say she's sound

And worth at least a hundred pound.

But don't you dare to let him know

That she's as old as billy-o.'

Jack led the old brown cow away,

And came back later in the day,

And said, 'Oh Mumsie dear, guess what

Your clever little boy has got.

I got, I really don't know how,

A super trade-in for our cow.'

The mother said, 'You little creep,

I'll bet you sold her much too cheap.'

When Jack produced one lousy bean,

His startled mother, turning green,

Leaped high up in the air and cried,

'I'm *absolutely stupefied!*

You crazy boy! D'you really mean
You sold our Daisy for a bean?'

She snatched the bean. She yelled,
'You chump!'

And flung it on the rubbish-dump.

Then summoning up all her power,

She beat the boy for half an hour,

Using (and nothing could be meaner)

The handle of a vacuum-cleaner.

At ten p.m. or thereabout,

The little bean began to sprout.

By morning it had grown so tall

You couldn't see the top at all.

Young Jack cried, 'Mum, admit it now!

It's better than a rotten cow!'

The mother said, 'You lunatic!

Where are the beans that I can pick?

There's not *one bean!* It's bare as
bare!'

'No, no!' cried Jack. 'You look up
there!

Look very high and you'll behold

Each single leaf is solid gold!'

By gollikins, the boy was right!

Now, glistening in the morning light,
The mother actually perceives

A mass of lovely golden leaves!

She yells out loud, 'My sainted souls!
I'll sell the Mini, buy a Rolls!

Don't stand and gape, you little clot!

Get up there quick and grab the lot!'

Jack was nimble, Jack was keen.

He scrambled up the mighty bean.

Up up he went without a stop,

But just as he was near the top,

A ghastly frightening thing occurred –

Not far above his head he heard

A big deep voice, a rumbling thing

That made the very heavens ring.

It shouted loud, 'FEE FI FO FUM

I SMELL THE BLOOD OF AN
ENGLISHMAN!'

Jack was frightened, Jack was quick,

And down he climbed in half a tick.

'Oh mum!' he gasped. 'Believe you
me,

There's something nasty up our tree!

I saw him mum! My gizzard froze!
A Giant with a clever nose!
‘A clever nose!’ his mother hissed.
‘You must be going round the twist!’
‘He smelled me out, I swear it, mum!’
He said he *smelled* an Englishman!
The mother said, ‘And well he might!
I’ve told you every single night
To take a bath because you smell,
But would you do it? Would you hell!
You even make your mother shrink
Because of your unholy stink!’
Jack answered, ‘Well, if you’re so
clean
Why don’t you climb the crazy bean.’
The mother cried, ‘By gad, I will!
There’s life within the old dog still!’
She hitched her skirts above her knee
And disappeared right up the tree.
Now would the Giant smell his mum?
Jack listened for the *fee-fo-fum*.
He gazed aloft. He wondered when
The dreaded words would come . . .

And then . . .
From somewhere high above the
ground
There came a frightful crunching
sound.
He heard the Giant mutter twice,
‘By gosh, that tasted very nice.
Although’ (and this in grumpy tones)
‘I wish there weren’t so many bones.’
‘By Christopher!’ Jack cried. ‘By gum!
The Giant’s eaten up my mum!
He smelled her out! She’s in his belly!
I had a hunch that she was smelly.’
Jack stood there gazing longingly
Upon the huge and golden tree.
He murmured softly, ‘Golly-gosh,
I guess I’ll *have* to take a wash
If I am going to climb this tree
Without the Giant smelling me.
In fact, a bath’s my only hope . . .’
He rushed indoors and grabbed the
soap
He scrubbed his body everywhere.
He even washed and rinsed his hair.

He did his teeth, he blew his nose
And went out smelling like a rose.
Once more he climbed the mighty
bean.
The Giant sat there, gross, obscene,
Muttering through his vicious teeth
(While Jack sat tensely just beneath),
Muttering loud, ‘FEE FI FO FUM,
RIGHT NOW I CAN’T SMELL ANYONE.’
Jack waited till the Giant slept,
Then out along the boughs he crept
And gathered so much gold, I swear
He was an instant millionaire.
‘A bath,’ he said, ‘does seem to pay.
I’m going to have one every day.’

Revision Card – Noun Phrases

How to extend Noun Phrases

Add words before the head noun:

Those beans will be planted.

Those colourful magical beans will be planted.

Several of those colourful magical beans will be planted.



Add words after the noun:

Beans with brown spots will be planted.

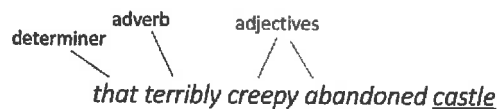
Beans with brown spots and a curious glint will be planted.

Or you can do both at once:

Those colourful beans with brown spots will be planted.

How to build Expanded Noun Phrases

Different types of words, phrases and clauses can all be used in an expanded noun phrase.



the castle with tall turrets covered in red like the tips of daggers

Prepositional phrase

The castle, which was hidden at the top of the beanstalk, loomed.

Relative clause

Changing Perceptions

The bear roared.

The giant, angry bear with teeth like razors roared.

The badly injured bear with terrified eyes roared.

The merry bear, who was playing with his cubs, roared.

You can add detail which **changes perception** using expanded noun phrases.

These expanded noun phrases create very **different images**.

Expanded Noun Phrases

Rewrite each sentence, expanding the noun phrase so that it has more information.

Jack sold the cow.

Beans grew towards the sky.

Jack scrambled up the beanstalk.

Giant muttered through his teeth.

Giant ate the mother.

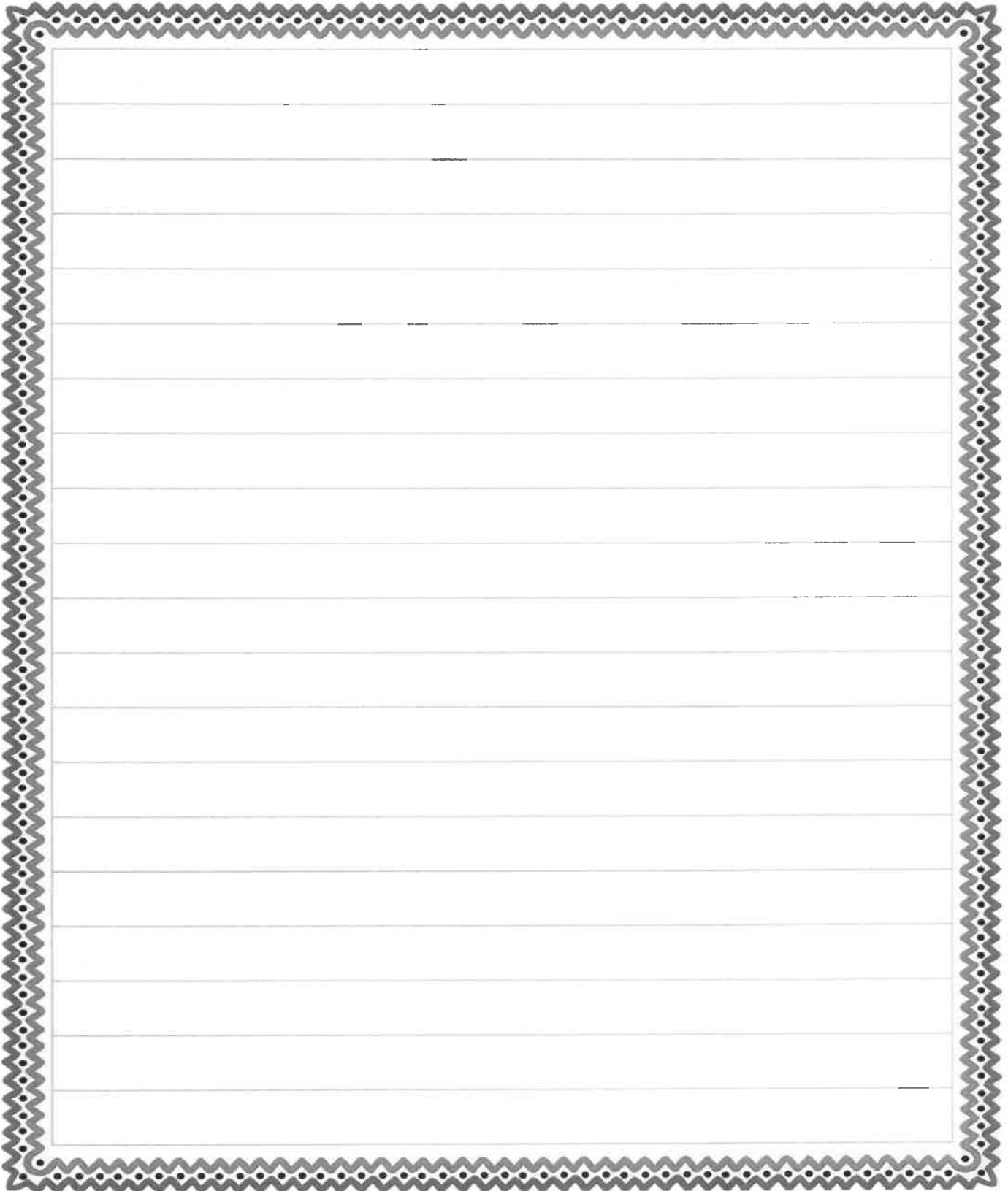
Leaves grew on the beanstalk.

Mother climbed the beanstalk.

Goose lays eggs.

Jack and The Beanstalk

Write your version of the story here.

A large rectangular writing area with a decorative border. The border is a thick, grey, zig-zag line with small black dots at the peaks and valleys. Inside the border, there are 20 horizontal grey lines, creating 21 rows of space for writing. The lines are evenly spaced and extend across the width of the writing area.

A large rectangular area with a decorative border. The border consists of a repeating zigzag pattern with small dots at the peaks and valleys. Inside the border, there are 20 horizontal lines, creating 19 rows of space for writing. The lines are evenly spaced and extend across the width of the central area.

What to do today

IMPORTANT Parent or Carer – Read this page with your child and check that you are happy with what they have to do and any weblinks or use of internet.

1. Read a poem

- Read *Goldilocks and the Three Bears*. Read the poem twice - once in your head and once out loud.
- Follow the words of the poem as you watch this animation:
<https://www.youtube.com/watch?v=IxHn2v3dz5E>
- Which part of the animation do you think is most effective? Why?

2. Practise expanding noun phrases to change perceptions

- Use the *Revision Card* to remind yourself about noun phrases.
- Complete *Changing Perceptions*. Complete pairs of sentences for 1-6. Challenge yourself to complete 7-14 as well.

Well done! Share your sentences with a grown-up. Show them how you have expanded noun-phrases and created different meanings.

3. Now for some writing

- Pick a fairy-tale you know well and think about how you could make up a changed version.
- Use words and pictures to show your changed version on *Fairy Tale Planner*.
- Write a version of your changed fairy-tale.

Try the Fun-Time Extra

- Watch this reading of another of Roald Dahl's Revolting Rhymes:
https://www.youtube.com/watch?v=fbFMwH_CuJk
- Prepare, record and share your own reading of *Goldilocks and the Three Bears*.

Goldilocks and the Three Bears

By Roald Dahl

This famous wicked little tale	Is good for people on the whole	You are of course a houseproud wife,
Should never have been put on sale.	It makes your appetite improve	And all your happy married life
It is a mystery to me	It also helps your bowels to move."	You have collected lovely things
Why loving parents cannot see	No proper wife would dare to question	Like gilded cherubs wearing wings,
That this is actually a book	Such a sensible suggestion,	And furniture by Chippendale
About a brazen little crook.	Above all not at breakfast-time	Bought at some famous auction sale.
Had I the chance I wouldn't fail	When men are seldom at their prime.	But your most special valued treasure,
To clap young Goldilocks in jail.	No sooner are you down the road	The piece that gives you endless
Now just imagine how <i>you'd</i> feel	Than Goldilocks, that little toad	pleasure,
If you had cooked a lovely meal,	That nosey thieving little louse,	Is one small children's dining-chair,
Delicious porridge, steaming hot,	Comes sneaking in your empty house.	Elizabethan, very rare.
Fresh coffee in the coffee-pot,	She looks around. She quickly notes	It is in fact your joy and pride,
With maybe toast and marmalade,	Three bowls brimful of porridge oats.	Passed down to you on grandma's side.
The table beautifully laid,	And while still standing on her feet,	But Goldilocks, like many freaks,
One place for you and one for dad,	She grabs a spoon and starts to eat.	Does not appreciate antiques.
Another for your little lad.	I say again, how <i>would</i> you feel	She doesn't care, she doesn't mind,
Then dad cries, "Golly-gosh! Gee-whizz!	If you had made this lovely meal	And now she plonks her fat behind
Oh cripes! How hot this porridge is!	And some delinquent little tot	Upon this dainty precious chair,
Let's take a walk along the street	Broke in and gobbled up the lot?	And crunch! It bursts beyond repair.
Until it's cool enough to eat."	But wait! That's not the worst of it!	A nice girl would at once exclaim,
He adds, "An early morning stroll	Now comes the most distressing bit.	"Oh dear! Oh heavens! What a shame!"

Not Goldie. She begins to swear. She bellows, "What a lousy chair!" And uses <i>one</i> disgusting word That luckily you've never heard. (I dare not write it, even hint it. Nobody would ever print it.) You'd think by now this little skunk Would have the sense to do a bunk. But no. I very much regret She hasn't nearly finished yet. Deciding she would like a rest, She says, "Let's see which bed is best." Upstairs she goes and tries all three. (Here comes the next catastrophe.) Most educated people choose To rid themselves of socks and shoes Before they clamber into bed. But Goldie didn't give a shred. Her filthy shoes were thick with grime, And mud and mush and slush and slime.	Worse still, upon the heel of one Was something that a dog had done. I say once more, what <i>would</i> you think If all this horrid dirt and stink Was smeared upon your eiderdown By this revolting little clown? (The famous story has no clues to show the girl removed her shoes.) Oh what a tale of crime on crime! Let's check it for a second time. <i>Crime One</i> , the prosecution's case: She breaks and enters someone's place. <i>Crime Two</i> , the prosecutor notes: She steals a bowl of porridge oats. <i>Crime Three</i> , she breaks a precious chair Belonging to the baby Bear. <i>Crime Four</i> , she smears each spotless sheet With filthy messes from her feet.	A judge would say without a blink, "Ten years hard labour in the clink!" but in the book, as you will see, the little beast gets off scot-free, while tiny children near and far shout, "Goody-good! Hooray! Hurrah!" "Poor darling Goldilocks!" they say, "Thank goodness that she got away!" Myself I think I'd rather send Young Goldie to a sticky end. "Oh daddy!" cried the Baby Bear, "My porridge gone! It isn't fair!" "Then go upstairs," the Big Bear said, "Your porridge is upon the bed. But as it's inside mademoiselle, You'll have to eat <i>her</i> up as well.
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How to extend Noun Phrases

Several of those colourful magical beans will be planted.

Beans with brown spots and a curious glint will be planted.

Those colourful beans with brown spots will be planted.



determiner adverb adjectives

that terribly creepy abandoned castle



the castle with tall turrets covered in red like the tips of daggers

Prepositional phrase

The castle, which was hidden at the top of the beanstalk, loomed.

Relative clause

The merry bear, who was playing with his cubs, roared.

These expanded noun phrases
create very different images.

Changing Perceptions

Write two new versions for each of these sentences with expanded noun phrases.

Make opposite images with your pair of noun phrases.

The first has been done for you.

1. The children ran to the cottage.

The cruel children with axes and hammers, who had already smashed up three homes in the wood, ran to the cottage.

The terrified children with no-one left to help them, ran to the cottage.

2. Cinderella mopped the floor.

3. The prince rode his steed.

4. The boy laughed.

5. Rapunzel called down from the tower.

6. The witch hid in the bushes.

7. The wolf lay under the covers.

8. The giant shouted.

9. The princess sang.

10. The Queen gave Snow White an apple.

11. The woodcutter raised his axe.

12. The King sat in the throne.

13. The pigs skipped down the lane.

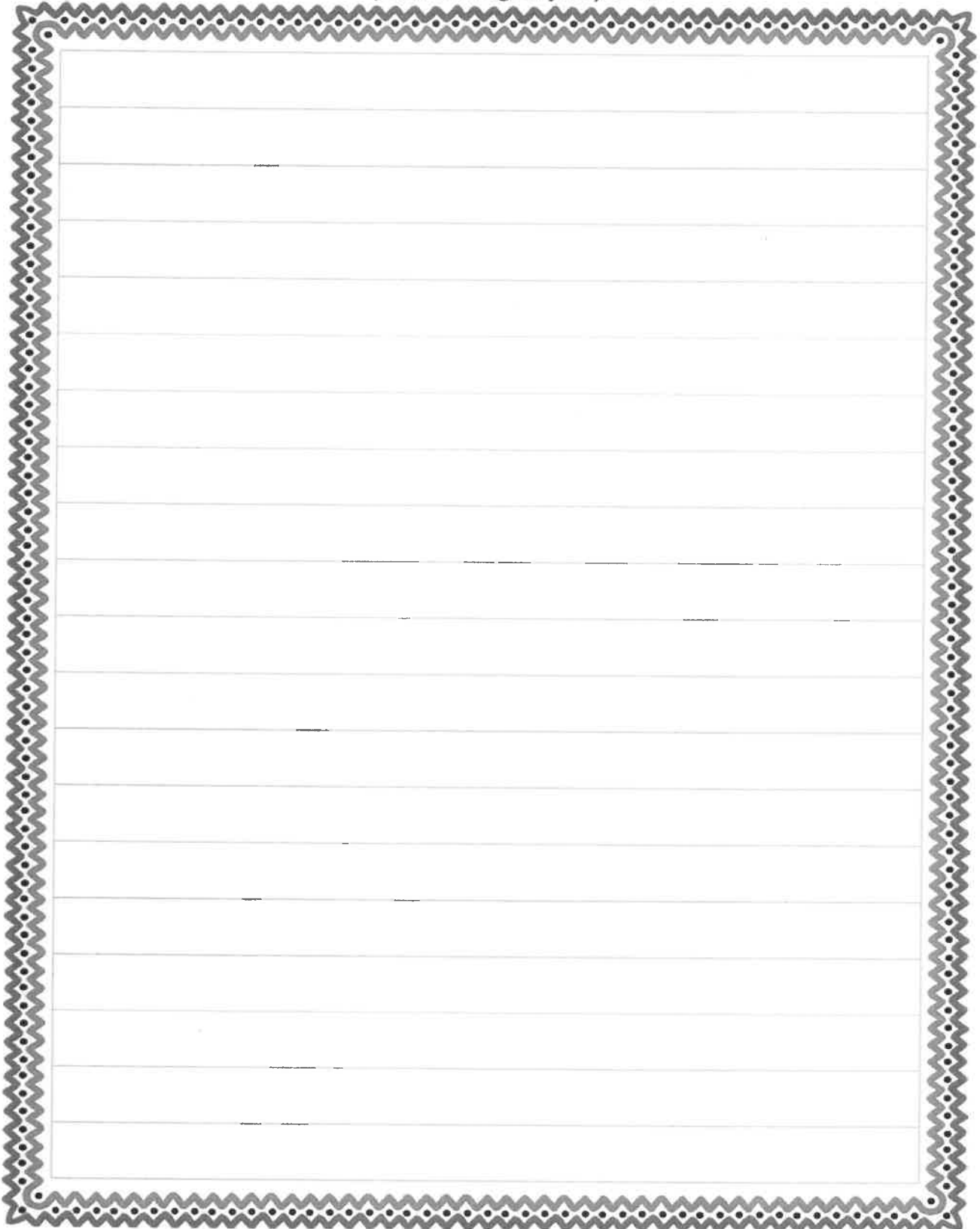
14. The baby slept peacefully.

Fairy Tale Planner

<p>1. Introduce the setting and characters – how are these changed from the original?</p>	<p>2. Think about how the story starts</p>	<p>3. How does the plot develop</p>
<p>4. What is the climax of the story?</p>	<p>5. How does the problem resolve itself?</p>	<p>6. What happens in the end?</p>

Changed Fairy Tale

Write your changed fairy-tale here.

A large rectangular area with a decorative border and horizontal lines for writing. The border is a repeating pattern of small circles and dots. The interior is filled with horizontal lines, providing space for writing a story.

