



Year 3/4 – 24th January

Please use the following to support home learning during this time.

To help us feedback to your child, please can you email all your work to: year4@friarage.n-yorks.sch.uk or **drop off** all your work at school if and when safe to do so.

A member of staff will telephone to talk to your child about their learning.

Please continue to check the website: <https://www.friarage.org.uk/> and Facebook page www.facebook.com/friaragecpschool/ for all updates.

Mathematics

Complete the worksheet each day: Mon-Thurs, then answer the questions on the arithmetic questions and tables – Friday. Try to time yourself while doing the tests.

Monday – Word problems

Tuesday – Word problems and reasoning

Wednesday – Reasoning challenges

Thursday – Topic review

Friday - Arithmetic (20 mins) and tables test (3 mins)

<https://classroom.thenational.academy/units/multiplication-and-division-6dbb>

Writing

<https://www.flamingoland.co.uk/> If you have access to the internet have a look at the website for Flamingo Land

Monday- Study the brochure and describe what you would expect to see on a trip to Flamingo Land.

Tuesday- Grammar Test

Wednesday- plan a letter that would persuade your head teacher to allow year 4 to go on a trip to the zoo.

Thursday- write your first draft

Friday- edit your work after sharing it with an adult then use this week's spellings to write some sentences to show understanding of the words

Reading

Read the text and answer the questions on the text.

As a challenge – write a book review

Spellings:

Merriment	happiness
Plentiful	penniless
Happily	prettiest
Nastiness	beautiful
Pitiful	silliness

Other Online and Offline Activities



<https://www.bbc.co.uk/bitesize/articles/zvqgsk7>
Year group focus page



National Literacy Trust Activities

<https://literacytrust.org.uk/family-zone/>

Theme : MAPs

Look at the map and the information provided and LEARN what an Ordnance Survey Map is and what it is useful for



Try the 60-second challenges

<https://www.youthsporttrust.org/60-second-physical-activity-challenges>

Have a go at reading these Phonic books at home.

<https://home.oxfordowl.co.uk/>



[Internet Safety](#)

[How do you keep safe online?](#)

Science

Using the information provided, DISCOVER how sound can travel over large distances and have a go at making your own string telephone.

Be Creative

Design a new game that requires you to use a map to solve clues.

French

Can you remember the names of the body parts in French from last term?
Complete the worksheet.

Write a set of instructions on how to play a game you really enjoy. It could be a board game or an electronic game.

Year 4

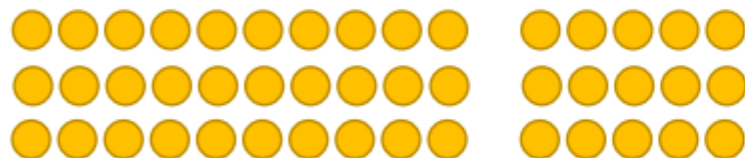
Multiplication and Division

A



Name _____

- 1 Georgia and Dan each have some counters.



Georgia's Counters

Dan's Counters

Write down a multiplication to work out how many counters Georgia has.

$$\square \times \square = \square$$

Write down a multiplication to work out how many counters Dan has.

$$\square \times \square = \square$$

How many counters do they have altogether?

_____ counters



1 mark



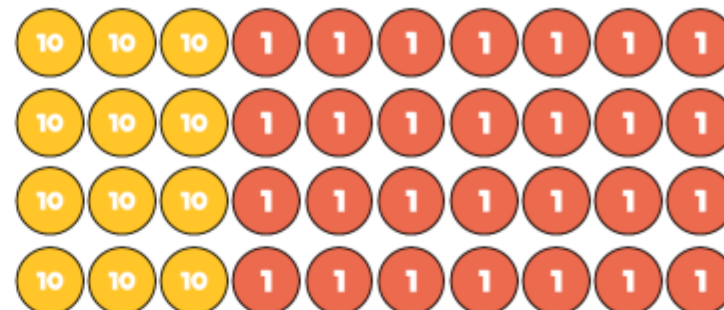
1 mark



1 mark

- 2 Amir is working out 37×4

He uses place value counters to help him.



Work out 37×4

Show all your working.

3



How many pens in total?

_____ pens



1 mark



1 mark

- 4 Work out the following multiplications.

$$36 \times 8 = \underline{\hspace{2cm}}$$

$$215 \times 7 = \underline{\hspace{2cm}}$$

☐
2 marks

- 5 Tina has £2,000
She buys 6 new paintings.
Each painting costs £259
How much money does she have left?

£

☐
2 marks

- 6 Work out $5 \times 797 \times 2 = \underline{\hspace{2cm}}$
Show or explain your method.

☐
2 marks

- 7 Complete the missing numbers.

	5	4	2
×			
<hr/>			
			8
<hr/>			
1			

☐
2 marks

- 8 A small bag of sweets contains 15 sweets.
A large bag of sweets contains 7 times as many as the small bag.
Max buys 8 bags of each.
How many sweets does he buy in total?

 sweets

☐
2 marks

Circle how confident you feel with multiplication.

1 2 3 4 5
Not Very
confident confident

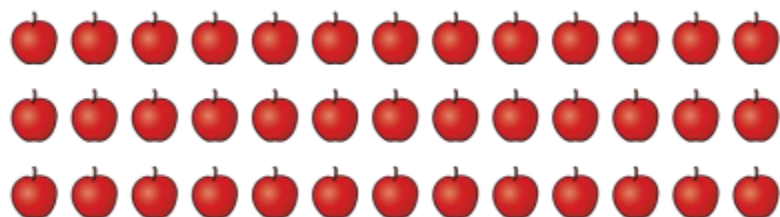
Year 4

Multiplication and Division B



Name _____

- 1 Max has 39 apples.

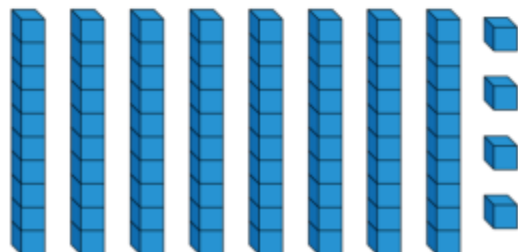


He puts them into bags.

He puts 3 apples in each bag.

How many bags does he need?

- 2 Work out $84 \div 4 =$



1 mark

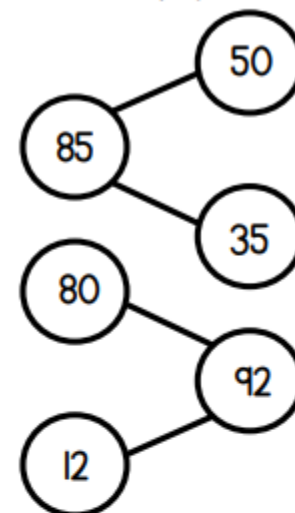
1 mark

- 3 Calculate the divisions.

Use the part-whole models to help you.

$85 \div 5 =$

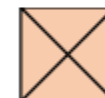
$92 \div 4 =$



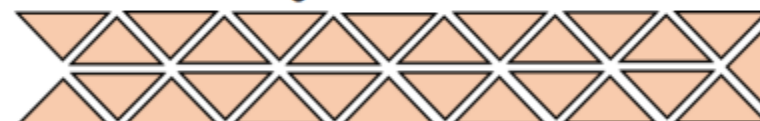
1 mark

1 mark

- 4 Gina is making squares using triangles.



Gina has 27 triangles.



How many complete squares can Gina make?

_____ squares

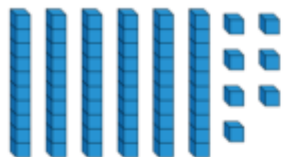
How many triangles does she have left over?

_____ triangles

1 mark

1 mark

5 Work out $67 \div 3 =$



1 mark

- 6 The length of 5 identical pencils is 95 cm.
What is the length of 1 of the pencils?

_____ cm

What is the length of 2 of the pencils?

_____ cm

1 mark

1 mark

- 7 Some doughnuts are shared between boxes.
There are 6 doughnuts in each box.
There is 1 doughnut left over.
Circle how many doughnuts there could be.

65

66

67

68

Explain your answer.

1 mark

1 mark

- 8 696 pens are packed into boxes of 3



How many boxes are there?

_____ boxes

1 mark

- 9 Work out

$126 \div 3 =$ _____ $675 \div 5 =$ _____

2 marks

- 10 Complete the missing number.

$\div 4 = 134 \text{ r } 1$

1 mark

Circle how confident you feel with division.

1

2

3

4

5

Not
confident

Very
confident

Year 3

Multiplication and Division



Name _____

- 1 Use the array to complete the number sentences.



$$\begin{array}{l} \square \times \square = \square \\ \square \times \square = \square \\ \square \div \square = \square \\ \square \div \square = \square \end{array}$$

2 marks

- 2 A shop has 32 apples.
They are put into 8 equal groups.
How many apples are in each group?

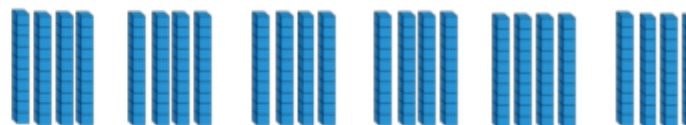
_____ apples

1 mark

- 3 Use the diagrams to help you.



$$6 \times 4 = \square$$



$$6 \times 40 = \square$$

2 marks

- 4 Complete the calculation.

Tens	Ones

	T	O
	1	3
x		3

1 mark

- 5 There are 4 jars of sweets.
Each jar has 23 sweets.
How many sweets are there altogether?



	T	O
x		

_____ sweets

1 mark

- 6 Evie has calculated 21×4
Her answer is 804
Explain her mistake.

	T	O
	2	1
\times		4
8	0	4

- 7 Work out 37×5

- 8 Calculate $96 \div 3 =$

Use the place value grid to help.

Tens	Ones
  	 
  	 
  	 

Calculate $84 \div 4 =$

- 9 Amir makes groups of 3 gummy bears.



He makes 7 groups and has 2 bears left over.
How many gummy bears does he have altogether?

 gummy bears

- 10 There are 25 green cubes in a box.
There are 5 times as many blue cubes than green cubes in the box.
How many cubes are there **altogether**?

 cubes

Circle how confident you feel with multiplication & division.

☐

1 mark

1

Not
confident

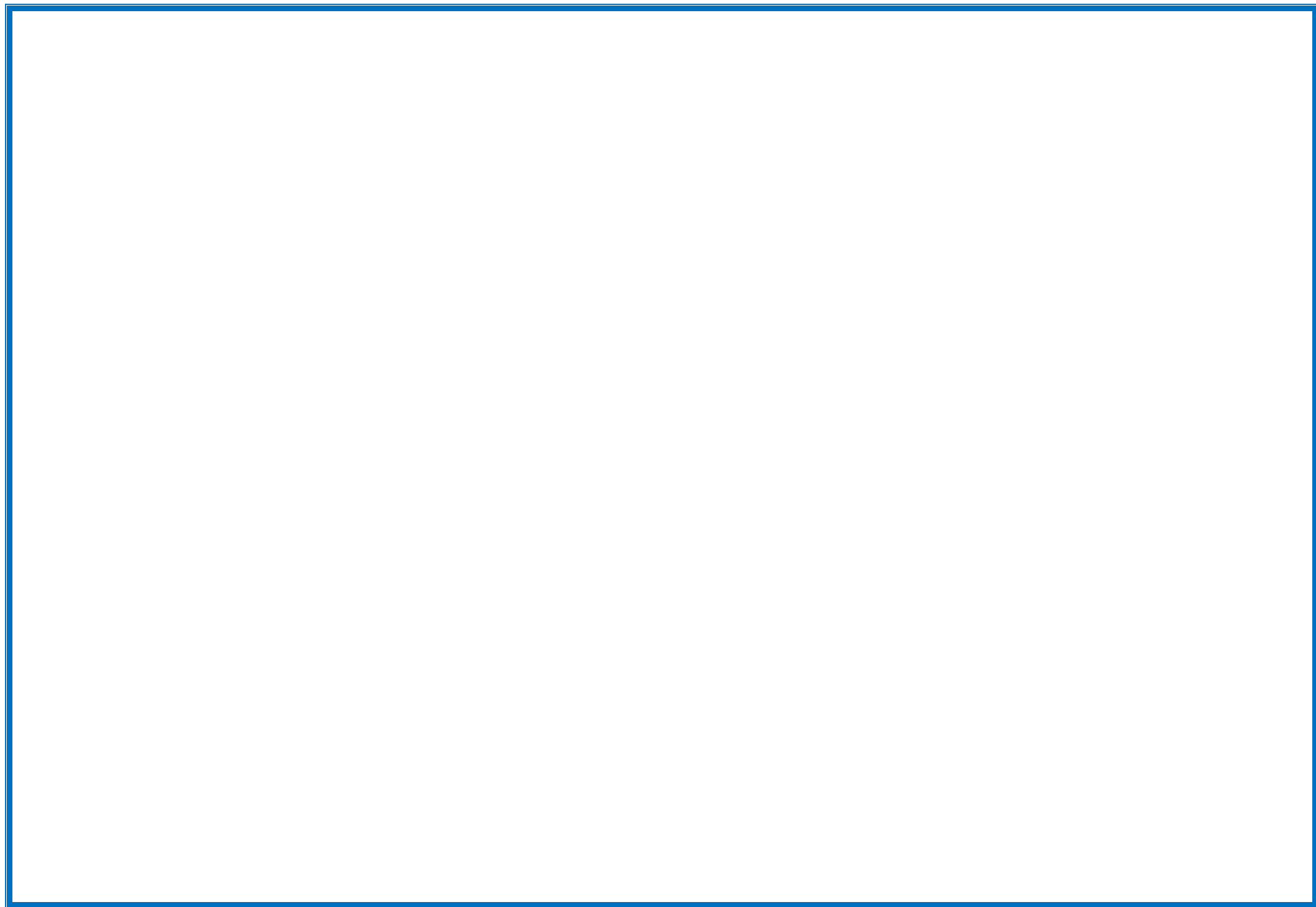
2

3

4

5

Very
confident



FRIDAY - ARITHMETIC

1	$3 \times 5 =$	<input type="text"/>	<input type="text"/> 1 mark
2	$4444 - 1000 =$	<input type="text"/>	<input type="text"/> 1 mark
3	$70 + 7 + 7 =$	<input type="text"/>	<input type="text"/> 1 mark
4	$61 \times 0 =$	<input type="text"/>	<input type="text"/> 1 mark
5	$18 \div 3 =$	<input type="text"/>	<input type="text"/> 1 mark
6	$\begin{array}{r} 8080 \\ + 1212 \\ \hline \end{array}$	<input type="text"/>	<input type="text"/> 1 mark
7	$45 - 9 - 9 =$	<input type="text"/>	<input type="text"/> 1 mark

8	$12 \times 4 =$	<input type="text"/>	<input type="text"/> 1 mark
9	$7 \times 9 =$	<input type="text"/>	<input type="text"/> 1 mark
10	$6 \times 8 =$	<input type="text"/>	<input type="text"/> 1 mark
11	$98 \div 1 =$	<input type="text"/>	<input type="text"/> 1 mark
12	$99 \div 11 =$	<input type="text"/>	<input type="text"/> 1 mark
13	$45 \div 9 =$	<input type="text"/>	<input type="text"/> 1 mark
14	$\frac{8}{5} - \frac{7}{5} =$	<input type="text"/>	<input type="text"/> 1 mark

Number of Questions: **40**

Testing: **2×, 3×, 4×, 5×, 6×, 7×, 8×, 9×, 10×, 11×, 12×** (with inverse)

$6 \times 3 = \underline{\quad}$

$11 \times 6 = \underline{\quad}$

$24 \div 4 = \underline{\quad}$

$5 \times 8 = \underline{\quad}$

$20 \div 5 = \underline{\quad}$

$5 \times 3 = \underline{\quad}$

$4 \times 10 = \underline{\quad}$

$7 \times 4 = \underline{\quad}$

$12 \times 6 = \underline{\quad}$

$40 \div 4 = \underline{\quad}$

$60 \div 12 = \underline{\quad}$

$88 \div 11 = \underline{\quad}$

$9 \times 5 = \underline{\quad}$

$4 \times 11 = \underline{\quad}$

$12 \div 4 = \underline{\quad}$

$21 \div 7 = \underline{\quad}$

$6 \times 11 = \underline{\quad}$

$2 \times 8 = \underline{\quad}$

$4 \times 6 = \underline{\quad}$

$11 \times 9 = \underline{\quad}$

$12 \div 3 = \underline{\quad}$

$9 \times 3 = \underline{\quad}$

$10 \times 7 = \underline{\quad}$

$44 \div 11 = \underline{\quad}$

$63 \div 9 = \underline{\quad}$

$11 \times 9 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$3 \times 8 = \underline{\quad}$

$1 \times 3 = \underline{\quad}$

$84 \div 12 = \underline{\quad}$

$5 \times 9 = \underline{\quad}$

$36 \div 6 = \underline{\quad}$

$72 \div 12 = \underline{\quad}$

$35 \div 7 = \underline{\quad}$

$12 \times 5 = \underline{\quad}$

$50 \div 10 = \underline{\quad}$

$36 \div 4 = \underline{\quad}$

$30 \div 10 = \underline{\quad}$

$3 \times 9 = \underline{\quad}$

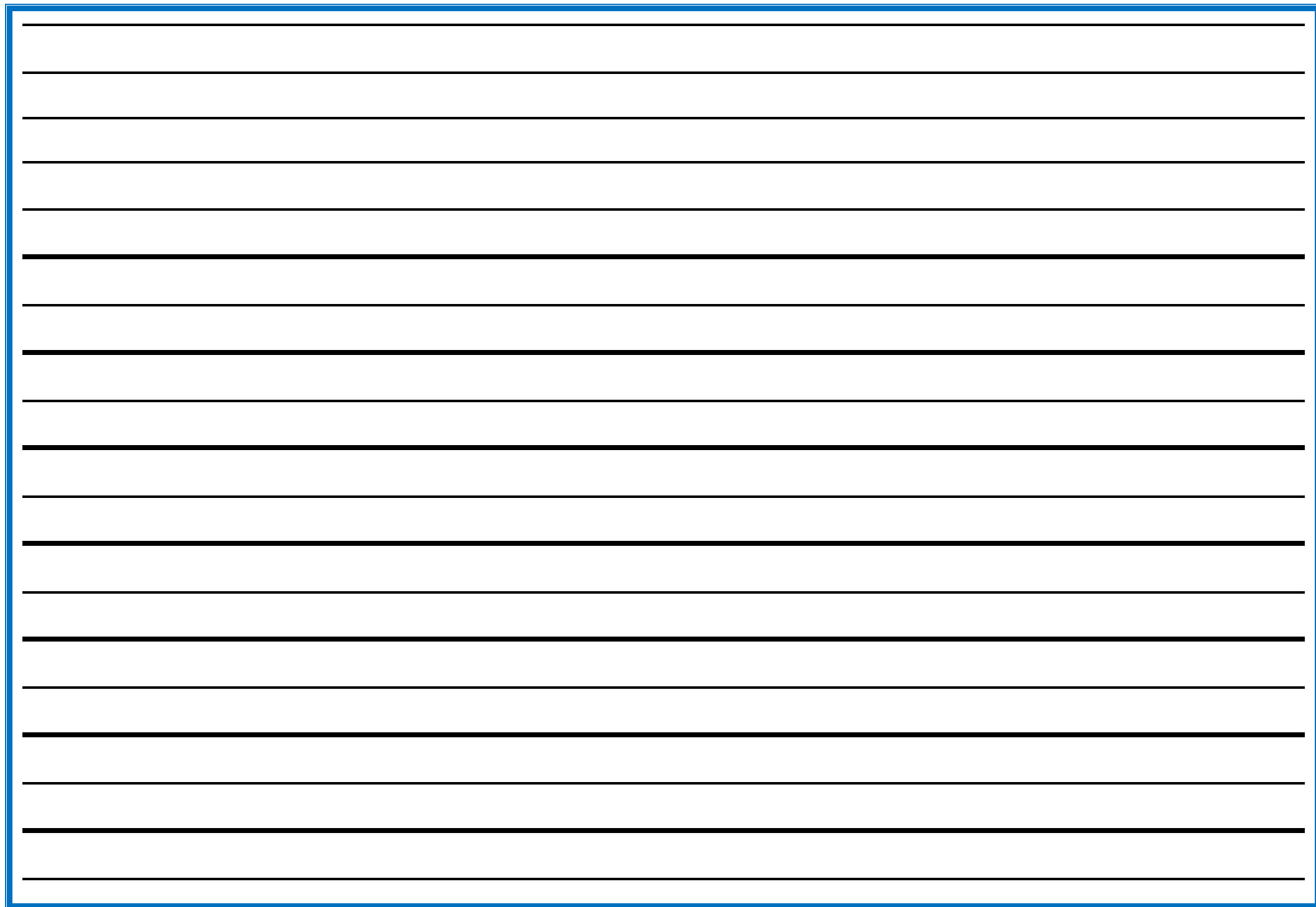
$8 \times 4 = \underline{\quad}$

<https://www.flamingoland.co.uk/> If you have access to the internet have a look at the website for Flamingo Land

If not don't worry you can use your imagination and the brochure provided.

TASK - Have a good look at the brochure and write a description of what you would expect to see on a visit to Flamingo Land.

Use lots of adjectives, adverbial phrases and similes.



Tuesday literacy

7. Circle the plural nouns in the sentence below.

There were lots of stalls at the farmer's market, selling vegetables, cakes and even a local artist's crafts.

8. Tick the sentence which does not open with a fronted adverbial.

According to my dad, we will win the match on Saturday.

☐

Sometimes, we go into town on the train.

☐

I have lived in two cities in my lifetime: Liverpool and Newcastle.

☐

9. Circle the determiners in the sentence below.

Two people were walking a dog along the canal towpath.

10. Add a comma in the correct place in this sentence.

During the night the sirens kept waking me up.

<p>Use the word tower in two different sentences. Once as a noun and once as a verb.</p> <p>Noun</p> <hr/> <hr/> <p>Verb</p> <hr/> <hr/>	<p>Draw a line from the word on the left to the synonym on the right.</p> <table> <tr> <td>hot</td><td>shriek</td></tr> <tr> <td>cold</td><td>drizzle</td></tr> <tr> <td>messy</td><td>tropical</td></tr> <tr> <td>pour</td><td>grubby</td></tr> <tr> <td>shout</td><td>bitter</td></tr> </table>	hot	shriek	cold	drizzle	messy	tropical	pour	grubby	shout	bitter
hot	shriek										
cold	drizzle										
messy	tropical										
pour	grubby										
shout	bitter										
<p>Can you add a comma to this sentence to make it a fronted adverbial?</p> <p>In the morning gloom Freddy shivered uncontrollably.</p>	<p>Insert the correct punctuation into this speech.</p> <p>Come here right now screamed Diane</p>										

Using the brochure and the website if you can access it, to plan a letter that would persuade Mrs Cappleman why it would be a good idea for Year 4 to visit Flamingo land Zoo. Our topic in the summer is all about the different climatic zones around the world and the effects humans are having on them.

Think about the role of the zoo and make some notes from the information below taken from the website:

Why do they keep animals in captivity?

What are the scientists attached to the zoo trying to achieve through their research and work they do around the world as well as Flamingo Land?

What will you learn on a visit to the zoo?

And why is that important?

The sender's address is on the right.

The recipient's address is on the left.

The letter shows the date on which it was written.

There is a greeting to the recipient.

The opening sentence hooks the reader and explains why you are writing.

There is an introduction.

The text is organised into paragraphs, which each have their own point.

Each point has arguments to support it.

There is a conclusion which summarises the main point of the letter and reiterates the opinion.

Did you know Flamingo Land has a scientist?

Flamingo Land's "Zoo Scientist" and his team of trainees carry out important work to help us to understand our animals and give them the best possible care. But only a small part of this work is based at the zoo, because our scientist's main job is to better understand and protect animals and plants in their wild homes as part of Flamingo Land's international conservation program.

All scientific research at Flamingo Land is co-ordinated through the [University of York Environment Department's](#) multiple award-winning "CIRCLE" research centre. The Centre for Integrated Research, [Conservation and Learning](#) aims to carry out ground-breaking research to help the conservation of wildlife and the worldwide work of zoos. Our Research Plan includes scientific study of all of the zoo's activities, including wildlife conservation, animal care and enclosure design, and how we can best share this exciting work with our visitors.

CIRCLE's main scientific work includes:

- Tropical Forest Conservation: We are measuring how best we can look after tropical forests and the people that depend on them, with Flamingo Land's [Udzungwa Forest Project](#) in Tanzania.
- Native Wildlife Conservation: We are measuring the success of our efforts to conserve native wildlife zones on site at Flamingo Land, where we have dozens of important wild animals and plants.
- Animal Care: We are surveying zoos across Europe and beyond to determine the best ways to look after our animals and build new homes for them.
- Zoo Education: We are experimenting with different ways to tell all our visitors and school groups about the wonders of the natural world and how best we can look after it.
- What do Zoos Do?: We are examining how well the world's zoos are doing their job of protecting and understanding the natural world.

[illegible]

Persuasive Letter Writing Plan

Topic

Recipient's Address

Author's Address

Greeting and Opinion

Argument 1

Argument 1 Supporting Reasons

Argument 2

Argument 2 Supporting Reasons

Argument 3

Argument 3 Supporting Reasons

Closing Statement

Persuasive Writing

Introductions

I think...
For this reason...
I feel that...
I am sure that...
It is certain...
I am writing to...
Of course...
In the same way...
On the other hand...
In this situation...

Making your point

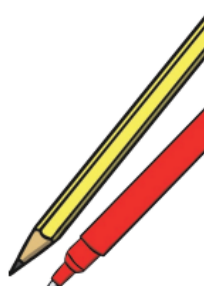
Firstly, secondly,
thirdly...
Furthermore...
In addition...
Also...
Finally...
Likewise...
Besides...
Again...
Moreover...
Similarly...
Surely...
Certainly...
Specifically...
If...then...
because...

Details

For example...
In fact...
For instance...
As evidence...
In support of this...
Endings
For these reasons...
As you can see...
In other words...
On the whole...
In short...
Without a doubt...
In brief...
Undoubtedly...

Other Words

reasons
arguments
for
against
unfair
pros
cons



Thursday - write a draft letter using the information provided to help you write your letter.

Author's Name and Address
Your name and address.

Mason Bennett
29 Stanstead Road
Brian Hill
QLD 4110

Recipient's Address
The address of the person you are writing to.

Hammersville State School
143 Ronan Street
Hammersville
QLD 4111

Greeting
Your friendly hello.

Dear Principal Aseesh,

Introduction
A brief explanation of the opinion you are going to express.

I am writing to **insist** that you allow our school to play rugby league as an official school sport. **My reasons are** very clear and simple - it would allow our passion for rugby league. As we support the Queensland Maroons, it would be an opportunity for rugby league fans to follow in their heroes' footsteps and it would get girls playing in a male-dominated sport.

Reasons
A sensibly ordered list of reasons, including time conjunctions.

Firstly, as Queenslanders, we are passionate and unwavering supporters of rugby league. It can be a long and tiresome wait for the State of Origin campaign to begin. **If we were to** play rugby league at school, **it would** be like having our own school State of Origin all year round! The students playing would also be passionate and try hard, as many of them are already rugby league players.

Secondly, I know so many of my fellow students and I are outlandish about the greatest rugby league team to ever play... The Queensland Maroons. My friends and I often talk about our favourite players and watch them on television. **If we were to** play rugby league at school, I would love to have an honorary Maroon! Players such as Cameron Smith and Greg Inglis are phenomenal role models for the students of our schools and we would love to play like them one day.

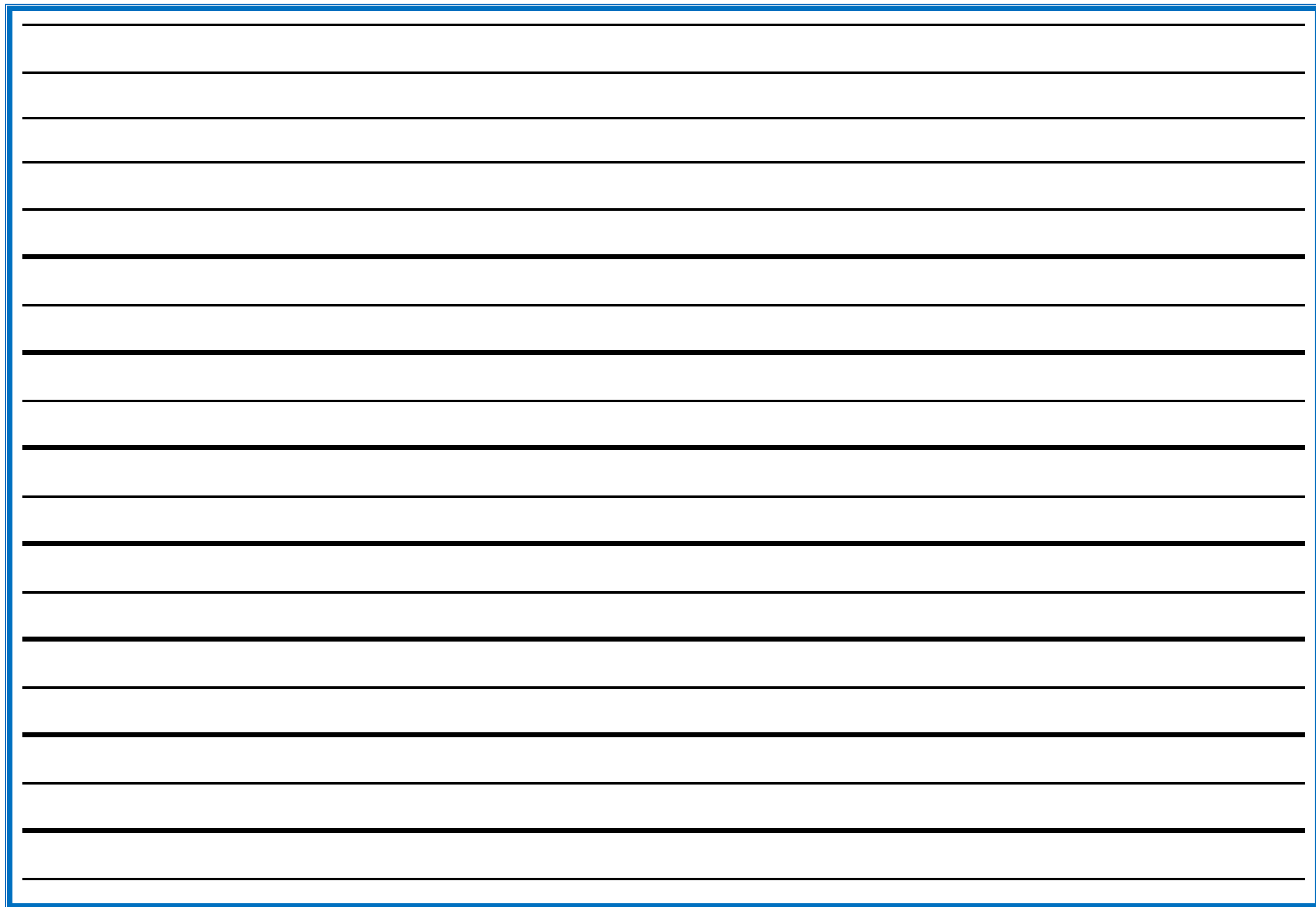
Finally, rugby league is currently only played by men. **This is highly unfair!** There are lots of girls in my class that are very talented at sports. **I think** these girls **should** be treated the same as me and have the chance to play rugby league.

Principal Aseesh, Hammersville State School is already a magnificent school. **Please** make it even more so **by** bringing rugby league to our school!

Conclusion
A strong final statement.

Yours sincerely,
Mason Bennett

Signature



This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

then we'll tie you up and hold you to ransom.'

'Have you done it before?'

'Oh yes,' he said. 'Lots of times.'

'What happens when you don't get any money?'

'Well, we . . .'

'We eat you,' said the hungry pirate.

'Ssh,' said Rambashi, waving his hand vaguely.

'You're not cannibals,' said Lila.

'We're blooming hungry,' said the pirate.

'Have you always been pirates?'

'No,' said Rambashi. 'I used to keep hens, but they all died of melancholy. So I sold the business and bought the boat . . . Oh no! Ssh! Stop! Don't move!'

The last pirates in the line, still grumbling, bumped into those in front, who stood behind Rambashi, transfixed with fear.

For there on the path ahead of them was a tiger. It swung its tail lazily from side to side, and raised its golden eyes at them, and then opened its mouth and roared so loudly that Lila thought the very earth was shaking. One of the smallest pirates put his hand in hers.

So there they stood, and the tiger was just gathering his strength to spring, when Lila suddenly remembered her self-igniting Crackle-Dragons. She took her hand back from the small pirate, reached into her bag, and took out the three she'd brought with her.

'Mind,' she said to Rambashi, and, pulling the string of the first one, she threw the firework in front of the tiger.

The mighty beast had never been so surprised in his life. First one, then another, then yet another Crackle-Dragon snapped and flashed and sparked and leapt at him,

Use a dictionary if you have one, or the internet to find what type of a word they are and the meanings of these words found in the book.

If you do not have either of these – use the book and your understanding of it to help you guess their meaning and word class.

How well have you understood the vocabulary on the pages we have read?

What's a 'ransom'?

What are 'cannibals'?

What is 'melancholy'?

What word on page 36 means 'couldn't move'?

Find a word on Page 36 that means 'barely noticeable'.

What phrase on Page 37 means 'will light on their own'?

Wednesday/Thursday – answer questions on the text

How did Lila scare the tiger away?

Why does one of the pirates take Lila's hand?

Explain how Philip Pullman showed that the pirates were actually not very scary.

Use the prompts below to answer the questions on the text for the third voice.

It is clear to see that.....

By re-reading the text I can see that...

The text suggests that....

In my opinion.....

I believe that....

It is important to note that....

ANSWERS:

[illegible]

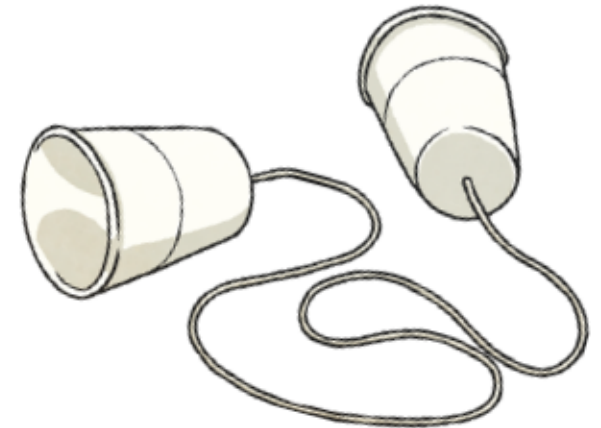
Make a string telephone to explore how sounds travel over a distance.

You will need:

Two paper cups

A compass or sewing needle to make holes in the cups;





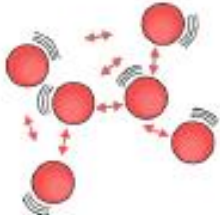
Approximately 20m length of string (kite string works well).



What to do:

1. Use the compass or sewing needle to carefully poke a hole in the bottom of each cup. You may need to ask an adult to help you.
2. Thread the string through the holes and tie a knot at each end to stop it pulling through the cups.
3. You and your partner should each hold a cup and move apart so that the string is tight.
4. Take turns talking into your cup while your partner listens in their cup.

Use the information from below and the investigation you have done to fill in the gaps.

 <p>The sound source begins to vibrate.</p>	 <p>Vibrations pass from the sound source to particles in the air around it.</p>	 <p>The vibrations reach your ear, and pass into your ear.</p>	 <p>The vibrations are changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound!</p>	 <p>The vibrations pass from particle to particle.</p>
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How does it work?

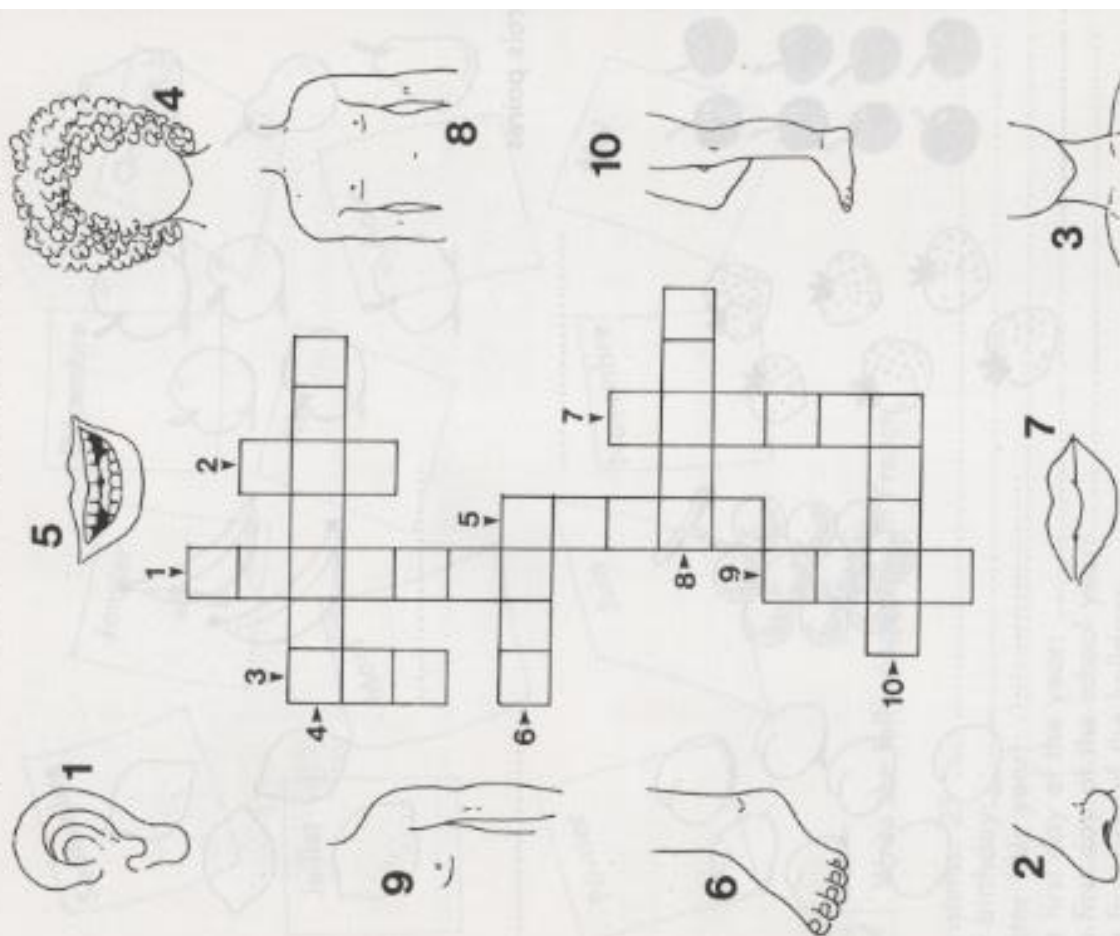
Use the key words to fill in the gaps to explain how your string telephone works.

When one person talks into their cup, the cup _____. The sound _____ of these vibrations passes along the string. The string is a _____, so the particles are very close together, and the vibrations can pass _____ and easily along the string. The vibrations pass from the _____ into the second cup, which also vibrates. These vibrations pass through the air _____ into the second person's _____, who can then hear the sound of the first person's voice. The sound of the person's voice is _____ through the string than it is through the air over the same _____.

particles	vibrates	energy	string	solid
	distance	ear	louder	quickly

Your body - crossword

Each drawing has a number. Write the French words for the drawings in the corresponding numbers of the grid.



Object: to learn to write parts of the body.

la bouche

la cheveux

la jambe

le cou

le nez

les oreilles

les dents

le pied

le bras

le tronc

GEOGRAPHY – Discover what an Ordnance Survey Map is





What is an OS map?

Royal
Geographical
Society
with IBG

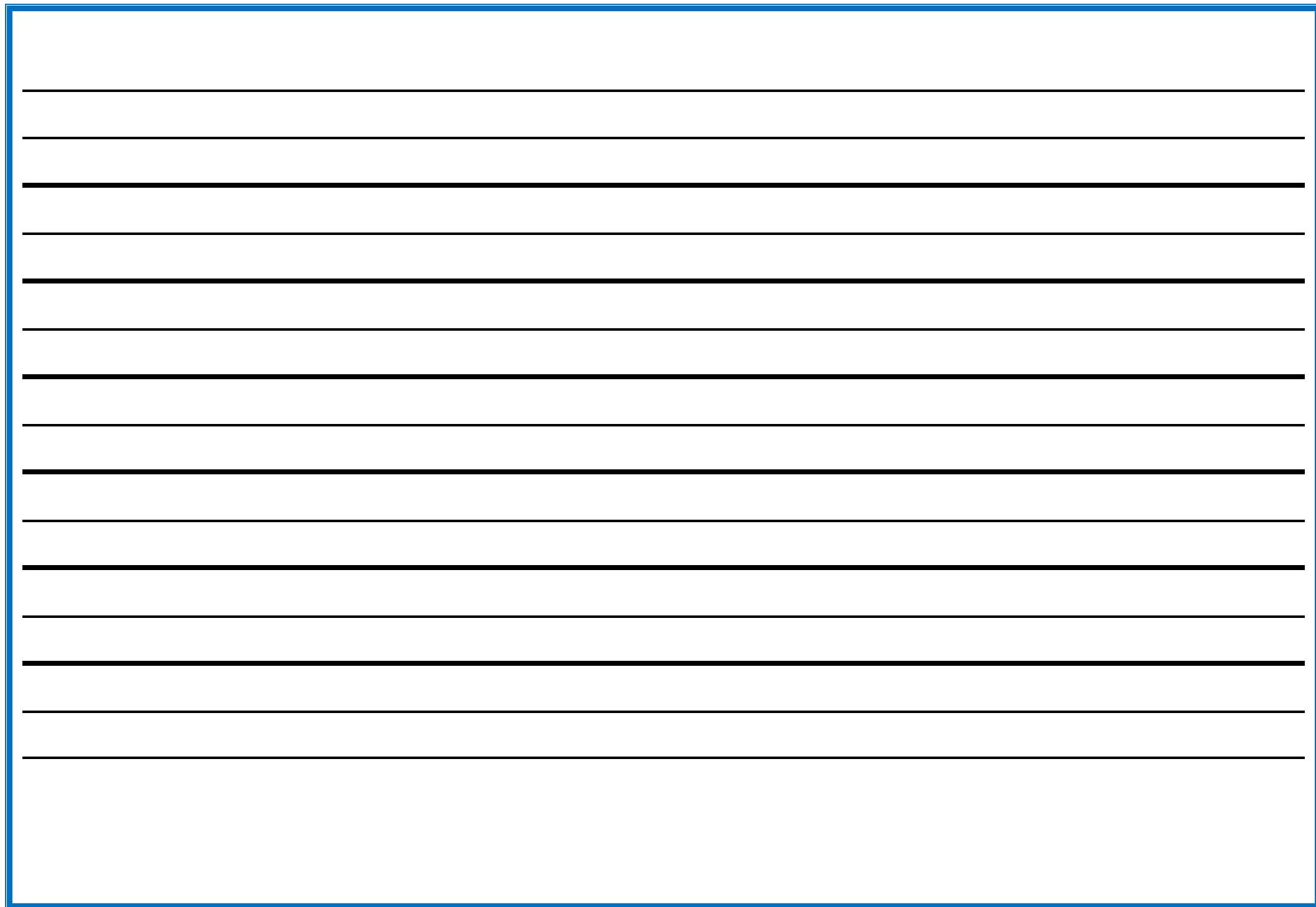
Advancing geography
and geographical learning

- Ordnance Survey is Britain's mapping agency.
- OS maps show human and physical features of the environment:
 - Contour lines to show land height, hills, valleys.
 - Rivers, grassland, forest, marsh, lakes, etc.
 - Man-made features such as canals, bridges, footpaths, buildings and roads.
- OS maps are particularly useful for anyone wishing to navigate on foot, such as long-distance walkers.

Have a good look at the Ordnance Survey Map of Scarborough and then answer the questions below

- What do they tell us?
- How can we use them?
- What are the little pictures for?
- Why are some names small, large etc?
- What do the red lines often drawn in circles represent/tell us?

Challenge – can you find out the history of Ordnance Survey Maps – they had a military beginning.



CONTOURS

These are lines drawn on a map that join places of the same height

- On OS maps they are orange/brown
- Some will have their heights written on them—some you will have to work out
- They are always an EQUAL distance apart
- If the lines are CLOSE together the land is steep
- If the lines are FAR apart the land is flat or very gently



Geography Skills Knowledge organiser—Map Skills



Ordnance Survey is an organisation that has mapped the UK. It produces paper maps and digital mapping products.

SPOT HEIGHTS

- The exact height of the land shown by a black dot with a number next to it.
- The number is the height above sea level in metres.



ORDNANCE SURVEY MAP SYMBOLS/KEYS

It's a good idea to know and be able to identify some of these features usually found on the **legend** (below).

Symbol	Meaning
	Campsite
	Motorway
	Railway
	Railway station
	River
	School
	Place of worship
	Post office (rural areas only)
	Woods

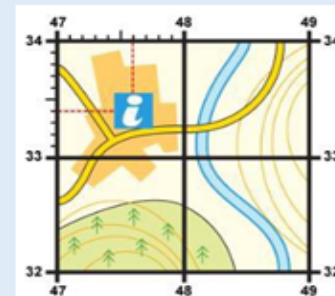
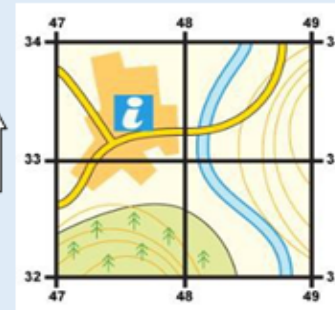
FOUR AND SIX FIGURE GRID REFERENCES

Maps have grid lines on them—we use them to pinpoint locations by using grid reference. A four-figure grid reference is a handy way of identifying any square on a map, six-figure grid references are best for giving exact locations. Grid references are easy, as long as you remember that you always go along the corridor before you go up the stairs.

Step 1: Start at the left-hand side of the map and go east until you get to the bottom-left-hand corner of the square you want. Write this number down e.g. 47 (**EASTING**)

Step 2: Move north until you get to the bottom-left corner of the square you want e.g. 33 (**NORTHING**)

Step 3: Now put your two answers together e.g. 47 33. There is no need to add brackets, commas, dashes etc.



GREATER DEPTH - SIX FIGURE GRID REFERENCES...

To pinpoint an exact place on a map, such as a church or farm building, then you will need to use a six-figure grid reference.

Step 1: Find the four-figure reference.

Step 2: Imagine this square is divided up into 100 tiny squares, 10 along the bottom and 10 up the side.

Step 3: Still remembering to go along the corridor and then up the stairs, estimate how far across and then up the square the feature is. 476 334

<https://www.bbc.co.uk/bitesize/topics/zvsfr82> - use this link to BBC Bitesize KS2 Geography/Maps to help with learning the key facts

PRIOR KNOWLEDGE:

- To know where we live
- To know the seven continents and the five oceans of the world
- To be able to identify the main countries of Europe

Geography Skills Knowledge organiser—Map Skills

Contin

- There are seven continents:
 - Europe
 - Asia
 - Africa
 - North America
 - South America
 - Antarctica
 - Australia (also

Oceans

- There are five oceans:
 - Pacific Ocean
 - Atlantic Ocean
 - Indian Ocean
 - Southern Ocean
 - Arctic Ocean



DESCRIBING DIRECTION ...

CARDINALS: North, South, East, West

- N - Never
- E - Eat
- S - Shredded
- W - Wheat

MAPS

A map is a **two-dimensional** drawing of an **area**. Maps can show the countryside, a town, a country or even the whole world! They are used to help **plan routes** from one place to another, or to find certain **features** such as castles or hills.

Different types of map are used for different things depending on whether you are walking, driving or even flying somewhere. Maps can be on paper or on a mobile phone, tablet or computer.



What should I already know?	
How do we hear sounds?	<ul style="list-style-type: none"> Hearing is one of my five senses. Sounds can be combined using musical instruments. What the word vibration means.
What will I know by the end of the unit?	
What is a sound?	A thing that can be heard. The object that makes the sound is called the source .
How is a sound made?	<ul style="list-style-type: none"> When objects vibrate, a sound is made. The vibration makes the air around the object vibrate and the air vibrations enter your ear. These are called sound waves. If an object is making a sound, a part of it is vibrating, even if you cannot see the vibrations.
How do sounds travel?	<ul style="list-style-type: none"> Sound waves travel through a medium (such as air, water, glass, stone, and brick). For example, if somebody is playing music in the room next door, the sound can travel through the bricks in the wall.
How do we hear sounds?	<ul style="list-style-type: none"> When an object vibrates, the air around it vibrates too. This vibrating air can also be known as sound waves. The sound waves travel to the ear and make the eardrums vibrate. Messages are sent to the brain which recognises the vibrations as sounds.
How do sounds change?	<p>Pitch:</p> <ul style="list-style-type: none"> The pitch of a sound is how high or low it is. <ul style="list-style-type: none"> A squeak of mouse has a high pitch. A roar of a lion has a low pitch. <p>Volume:</p> <ul style="list-style-type: none"> The volume of a sound is how loud or quiet it is. When a sound is created by a little amount of energy, a weak sound wave is created which doesn't travel far. This makes a quiet sound. <ul style="list-style-type: none"> A small tap of a hammer is used with small amounts of energy and so creates a quiet noise. A vibration with lots of energy makes a powerful sound wave and therefore a loud sound. <ul style="list-style-type: none"> A powerful, smashing tap of a hammer is used with lots of energy and so creates a loud noise.
How do we measure sound?	<ul style="list-style-type: none"> Amplitude measures how strong a sound wave is. Decibels measure how loud a sound is. Frequency measures the number of times per second that the sound wave cycles.

Diagrams

Pitch:

- High **pitch** sounds are created by short sound waves.

- Low **pitched** sounds are created by long sound waves.



Volume:

- The closer you are to the **source** of the sound, the **louder** the sound will be.

- The further away you are from the **source** of the sound, the **quieter** the sound will be.



Vocabulary

amplitude	a measure of the strength of a sound wave
decibel	a measure of how loud a sound is
electricity	a form of energy that can be carried by wires and is used for heating and lighting, and to provide power for devices
energy	the power from sources such as electricity that makes machines work or provides heat
frequency	a measure of how many times per second the sound wave cycles
medium	something that makes possible the transfer of energy from one location to another
pitch	how high or low a sound is
power	Power is energy, especially electricity, that is obtained in large quantities from a fuel source and used to operate lights, heating, and machinery
sound waves	invisible waves that travel through air, water, and solid objects as vibrations
source	where something comes from
transmit	to pass from one place or person to another
travel	how something moves around
vibrations	invisible waves that move quickly
volume	how loud or quiet a sound is

Investigate!

- Fill identical jars with different volumes of water. Which one creates the highest pitch?
- Which material would make the best sound defender? How can you investigate this?
- Make musical instruments using different length strings. How do their pitches differ?