St Denys Primary School

Year 5 and Year 6

Home Learning

Week beginning: 22nd June 2020

Creativity, Choice, Challenge
Achievement for All

Year 5 and Year 6 - Home Learning

Whilst we are not expecting you to replicate school at home, it will be important that you all try to do some work each school day to keep your skills up.

And don't forget to stay active!

In this booklet you will find a range of different activities and tasks that you can choose to complete during the week.

There is also a separate booklet for each class that will contain your new spelling words and your daily Times Table Rockstar challenge. These can be collected from the school office or downloaded online.

Each morning your teacher will still be saying 'Hello' on Class Dojo. You'll also be able to ask any questions or just them about what you have been up to! As your teachers will be in school, remember they might not be able to respond straight away. You will still be able to post things to your Class Dojo portfolio but it might not always be your teacher who approves and leaves comments for you.

Class 5, if you want to try some online lessons, check out BBC Bitesize.

Year 5/ P6 online lessons

Monday 22 June - Friday 26 June

BBC Bitesize Daily lessons

Monday	Tuesday	Wednesday	Thursday	Friday
English Comics	**English** Analysing playscripts	**English** National Writing Day lesson	**English** Twelfth Night	**English** Reading lesson: Macbeth Retold by Marcia Williams
Maths Subtract decimals using formal method and involving exchange	**Maths** Subtract decimals with different decimal places	**Maths** Multiply decimals by 10, 100, 1000	**Maths** Divide a one or two digit number by 10, 100, 1000 and identify the place value	**Maths** Challenge of the week
History The Vikings	**Geography** Florida	**Science** Features of sound	**Design and Technology** Anthropometrics and ergonomics	**French** Vocabulary and grammar

Find all this content and more at: **bbc.co.uk/bitesize/dailylessons**

Lessons are available daily. Here is the schedule for this week.

Class 6, if you want to try some online lessons, check out BBC Bitesize.

Year 6/ P7 online lessons

Monday 22 June - Friday 26 June

BBC Bitesize Daily lessons

Monday	Tuesday	Wednesday	Thursday	Friday
English Comics	**English** Analysing playscripts	**English** National Writing Day lesson	**English** Romeo & Juliet	**English** Reading lesson: Macbeth Retold by Marcia Williams
Maths Area and perimeter of rectilinear shapes	**Maths** Calculate the area of triangles	**Maths** Calculate the area of parallelograms	**Maths** Calculate, estimate and compare volume of cubes	**Maths** Challenge of the week
History The Vikings	**Geography** Florida	**Science** Features of sound	**Design and Technology** Iterative design	**French** Vocabulary and grammar

Find all this content and more at: **bbc.co.uk/bitesize/dailylessons**

Lessons are available daily. Here is the schedule for this week.

Year 5 and Year 6 Spelling Words

accommodate	correspond	identity	queue
accompany	criticise	immediate (ly)	recognise
according	curiosity	individual	recommend
achieve	definite	interfere	relevant
aggressive	desperate	interrupt	restaurant
amateur	determined	language	rhyme
ancient	develop	leisure	rhythm
apparent	dictionary	lightning	sacrifice
appreciate	disastrous	marvellous	secretary
attached	embarrass	mischievous	shoulder
available	environment	muscle	signature
average	equip (-ed, -ment)	necessary	sincere (ly)
awkward	especially	neighbour	soldier
bargain	exaggerate	nuisance	stomach
bruise	excellent	occupy	sufficient
category	existence	occur	suggest
cemetery	explanation	opportunity	symbol
committee	familiar	parliament	system
communicate	foreign	persuade	temperature
community	forty	physical	thorough
competition	frequently	prejudice	twelfth
conscience	government	privilege	variety
conscious	guarantee	profession	vegetable
controversy	harass	programme	vehicle
convenience	hindrance	pronunciation	yacht

Colour in the word if you can read it, spell it and use it in your own sentence.

Adjoining means next to.

How many different words can you create using adjoining letters? The letters must touch each other but can join in any direction – horizontally, vertically or diagonally. You cannot use the same letter cube more than once in a single word.

S	T	V	E
K	E	N	O
T	P	U	Y
E	O	M	P

POINTS GUIDE	
3 letter words	1 point
4 letter words	2 points
5 letter words	3 points
6 letter words	4 points
7+ letter words	5 points

Now add up your total points score using the Points Guide and record it in the box.

TOTAL POINTS

Weekly Writing Challenge

This week, you are going to plan and write a short story. The idea for your story is **'The Bridge'.**

Imagine what type of bridge is going to be in your story.

Things to think about:

- Where is the bridge?
- How big is it?
- What is the bridge made from?
- How old is it?
- What is on the other side of the bridge?
- Do you meet anyone else crossing the bridge?
- Will you be able to get back again?

Remember to:

- Plan your story with a beginning, middle and end. How are you going to hook the reader at the start? Create a storyboard to tell your story.
- Organise your ideas into paragraphs.
- Choose your words carefully to entertain the reader.
- Write in sentences. Try to think of really good descriptive words to use.
- Pay attention to your spelling and punctuation.
- Read, check and edit your work carefully.
- Decide how you are going to publish your story: writing it out, typing it, making a book?

The Bridge

1.

2.

3.

4.

5.

6.

7.

8.

Daily News

Sport UK News

Lily Parr Celebrated By Football Museum

Illustration: Lily Parr scored 986 goals in her career.

Who was Lily Parr?

- **Lily Parr was a professional footballer who played for over 30 years.**
- **She scored 986 goals in her career and was the first woman to be featured in the Football Hall of Fame.**

Lily Parr, the superstar footballer, will be honoured with her own gallery in the National Football Museum in Manchester.

You might not have heard the name of Lily Parr but without groundbreaking athletes like her, football today would look very different.

She was one of the first female professional footballers, playing between 1919 and 1951 and scoring a massive 986 goals in her career. That's more than Ronaldo or Messi!

She even played in the first ever recognised women's international match between England and France in 1920. Her football team, Dick, Kerr Ladies FC, represented England and beat the French team 4-0!

Women's football was more popular than men's at the time. A whopping 53,000 people went to see her team play in 1920.

However, the sport faced serious challenges. The FA banned women from playing on their pitches in 1921 because they didn't think football was suitable for them. This meant they had to play on much smaller pitches. That ban wasn't lifted until 1971!

There are 110 statues of male players but, despite the amazing success of players like Lily Parr, there wasn't one of a female footballer until last year when a statue of her was created.

Lily Parr's statue will be part of a whole new gallery about Lily's life and career. It will celebrate her influence on football as well as the challenges women footballers have had to face and overcome.

Belinda Scarlett, the curator of the gallery, said that Lily's influence,"is highly significant and under-represented."

Hopefully, shining a light on Lily and her amazing achievements could inspire the next football superstar of the future.

Glossary

career	A job or occupation taken for a significant amount of time.
FA	Football Association, the body which governs the rules of football in England.
influence	To be able to inspire others to act the same.
curator	A person who is in charge of what goes in a gallery in a museum.

Questions

1. Why do you think the author uses the word 'groundbreaking' to describe athletes like Lily Parr?

2. What will the new gallery at the National Football Museum be about?

3. Attendance for women's football games dropped after 1921. Use the news story to explain why you think this was.

4. Why do you think the National football museum have created a gallery about Lily's life?

5. Number these events in Lily Parr's career in the order in which they occurred. One has been done for you.

- [ ] The FA banned women from playing on their pitches.
- [ ] A gallery about her life was created.
- [1] She began her career.
- [ ] She took part in the first recognised international women's football match.

6. Summarise this news story in 15 words or fewer.

DICTIONARY CHALLENGE

Use a dictionary to complete the following challenges!

Can you find...

...a six-letter word beginning with **k**?

...an eight-letter word beginning with **l**?

...a five-letter word beginning with **o**?

...a four letter word beginning with **qu**?

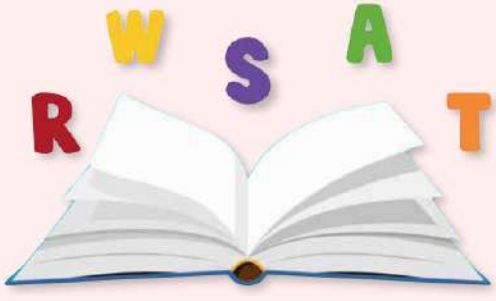
...a five-letter word beginning with **dr**?

...a seven-letter word beginning with **m** and ending with **g**?

...a seven-letter word beginning with **t** and ending in **e**?

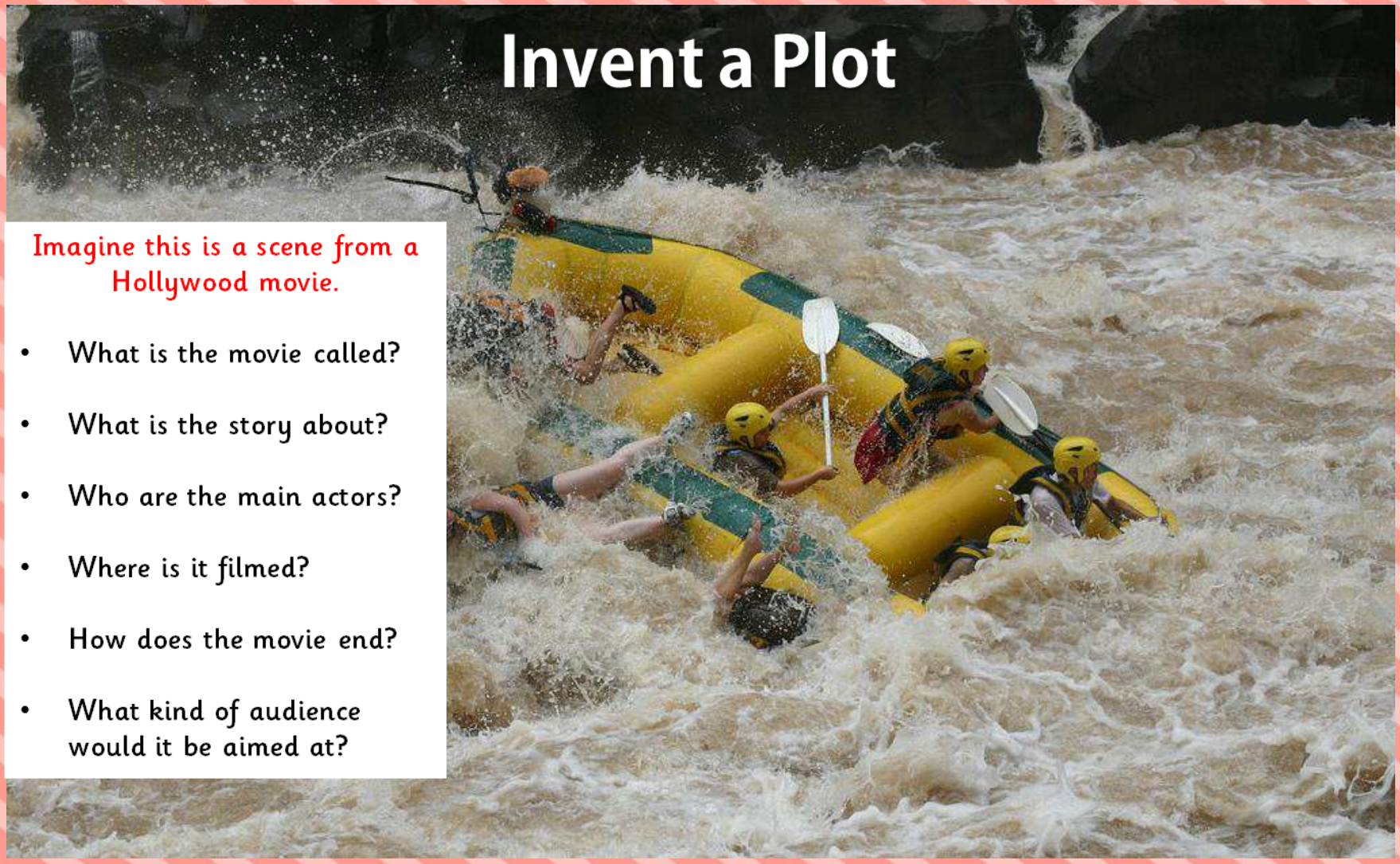
...three words containing the letter **f** (but not at the beginning)?

...any word beginning and ending with the **same** letter?



Make sure you know the definitions of all of these words!

Invent a Plot



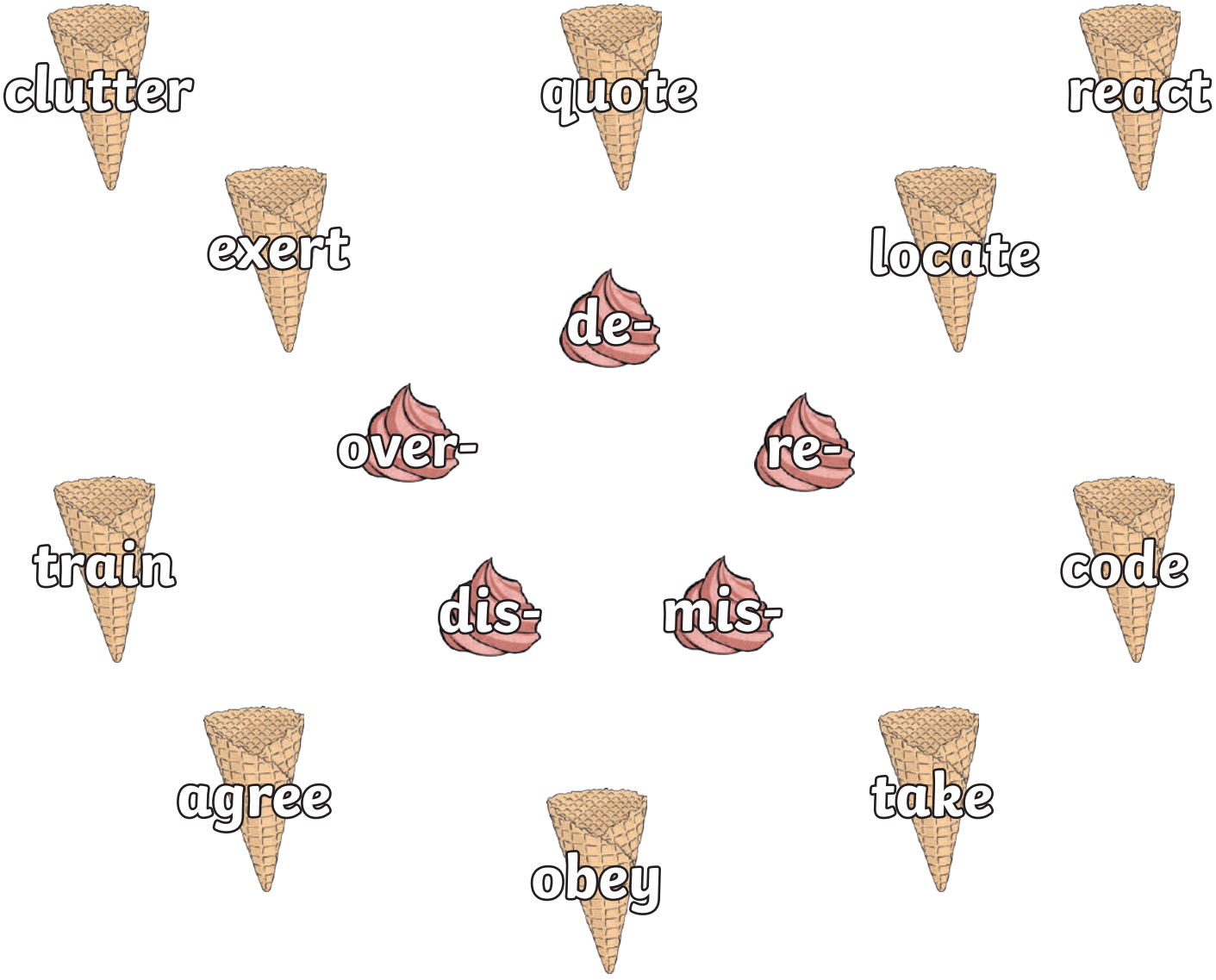
Imagine this is a scene from a Hollywood movie.

- What is the movie called?
- What is the story about?
- Who are the main actors?
- Where is it filmed?
- How does the movie end?
- What kind of audience would it be aimed at?

A movie trailer is the little advert you see for a movie when you're at the cinema.
They show these to advertise new movies that are coming out soon.
Write the script for this movie's trailer.

Ice-Cream Match-Up!

Can you draw lines to match each prefix to the correct root word to make each ice cream into a verb? Each prefix belongs to two different root words.



Could you use some of the words in summer themed sentences?

Summer Synonym Scramble

Oh no! It's the family trip to the seaside and everyone's swimsuits are muddled up. Can you find the matching synonyms so that everyone has matching swimsuits?

Can you use some of these words to write your own summer themed sentences?

Persuasive Writing

The local Red Kite reserve is holding a competition to see which school can raise the most money for their Red Kite conservation projects. Conservation projects are projects designed to help Red Kites survive and breed in the wild. Look at the information on the next slide about this special bird.

Instructions: Present the wildlife group with a list of events and ideas you have to raise money for them. The most persuasive will win the competition. You can present them however you like e.g. presentation, poster, advert…

Draw a poster to tell people how amazing Red Kites are.

Information About Red Kites

Red Kites are one of the larger birds of prey, which have a 175-179cm wing span.
Their diet consists mainly of mice, voles, shrews, young hares and rabbits.
Often poisons left for these animals are eaten by Red Kites because they eat the poisoned prey.
When faced with danger, the mother will signal and play dead.
They are found in Europe and North West Africa and have often been seen as a pest, being targeted by hunters and poachers.
Red Kites were heavily endangered due to hunting in Ireland, that they became extinct. Now, Ireland is trying to re-introduce them back to the country where they belong.

Summer Sentence Scramble

Use your super sentence writing skills to create sentences with a relative clause. Read the main clause, add an appropriate relative pronoun from the list below and then add your own relative clause. The first one is done for you as an example.

Relative pronouns - who, which, where, when, whose, that

1. We often visit the seaside **when the sun shines**.
2. The girl jumped into the pool, _____

   _____
3. We went on a long plane journey _____

   _____
4. The boy sprayed his friend with the water pistol, _____

   _____






This time, read the main clause. Then re-write the sentence, adding an appropriate relative pronoun and embedded relative clause in the middle of each sentence. Don't forget your commas if you need them! The first one is done for you as an example.

1. We went to the beach**, which was on the east coast,** to go surfing.
2. The ice-cream melted quickly. _____

   _____

   _____
3. Our dog dug a deep hole in the sand. _____

   _____

   _____
4. My dad paddled the dinghy out to sea. _____

   _____

   _____

Character Development

This is the Mad Hatter from Alice in Wonderland.

Use a thesaurus to carefully describe the appearance of this character.

Describe the following:

- his eyes/eyebrows
- his hat
- his clothes

Can you turn this into a descriptive paragraph about the Mad Hatter?

Describe everything you can see, using as many different adjectives (describing words) as possible.

Daily News

History UK News

Archaeologists Discover London's Oldest Theatre

Who were the Elizabethans?

- **The Elizabethan period lasted between 1558-1603. It is named after the ruler Queen Elizabeth I.**
- **Queen Elizabeth I was the daughter of Henry VIII and Anne Boleyn.**

Illustration: Archaeologists find buried theatre.

Archaeologists have discovered London's oldest Elizabethan theatre. Buried in the East End of London, it could reveal the history of the birth of theatres.

Researchers believe that they have found the remains of the Red Lion theatre. It is the oldest purpose-built theatre in London.

At a dig in 2019, a team of archaeologists came across an unusual rectangular shape and 144 timbers.

The location seems to match that of the Red Lion theatre in historical documents. This suggests that the theatre was built in 1567.

Stephen White, who was in charge of the dig, said the Red Lion theatre "marked the dawn of Elizabethan theatre."

The Red Lion is understood to be the first theatre which was built only to show plays. Before this, theatre was performed at inns and university halls.

Even though this was a theatre, it would have looked a lot different to most theatres today. The theatre would have had no roof and open to all different kinds of weather.

John Brayne, the owner of the theatre, would go on to build another called The Theatre.

The Theatre would host many plays, including a young William Shakespeare's.

William Shakespeare is one of the world's-most famous playwrights. He wrote well-known plays, such as Macbeth and Romeo and Juliet.

Even though he lived so long ago, we still study and perform his plays today.

Shakespeare also built his own theatre called the Globe. A replica of that theatre is still used as a theatre in London today.

Archaeologists are still confirming their finding to make sure the site is exactly what they think it is.

With so many things buried yet to be found, who knows what is out there still to be discovered next?

Glossary

archaeologists	Someone who studies history through objects.
dig	An archaeological site.
timbers	Wooden beams which are used to support buildings.
confirming	Making sure of something.

Questions

1. What as the name of London's oldest purpose-built theatre?

_____

2. Name one difference, according to the article, between the Red Lion Theatre and most modern day theatres.

_____

_____

3. ''Even though he lived so long ago, we still study his plays.'' This suggests...

   - ◯ We still don't understand it.
   - ◯ Shakespeare is not interesting.
   - ◯ Shakespeares plays are impressive.
   - ◯ We need some new plays.

4. Tick each statement to show whether it is a fact or an opinion.

	Fact	Opinion
Archaeologists think they have found London's oldest purpose-built theatre.		
The owner of the Red Lion is inspirational.		
One of the first theatres was called The Theatre.		
Shakespeare is hard to understand.		

5. What do you think historians will think about this news?

_____

_____

_____

6. Summarise the key information in this article in 15 words or fewer.

_____

_____

_____

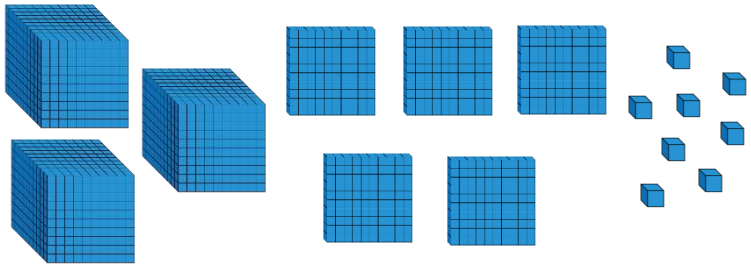
Year 5

Addition and Subtraction

1 Mo represents a number using counters.

1,000s	100s	10s	1s
1,000	100 100 100 100	10 10 10 10 10 10 10	1 1 1 1

Alex represents a number using Base 10



What is the total of their numbers?

_____

2 Amir's car costs £1,749

Whitney's car costs £2,300

What is the difference between the cost of the two cars?

£ _____

3 Max says, "460 plus 1340 equals 1700"

Use a subtraction to show that Max is wrong.

4 Work out the missing number in the bar model?

17,540		
3,960	_____	640

5 Complete the missing numbers.

10,300 + 5,420 = 9,300 + _____

10,300 + 5,420 = 10,500 + _____

6 The numbers in this sequence decrease by the same amount each time.
Complete the sequence.

64,290 63,390 62,490 _____

7 On Saturday a zoo has 50,285 visitors.
On Sunday the zoo has 10,500 more visitors than Saturday.
The zoo keeper says, "We have had over one hundred thousand visitors across the two days."
Do you agree? Explain your answer.

8 Work out

10,000 − 4,318

_____

126,000 + 7,500

_____

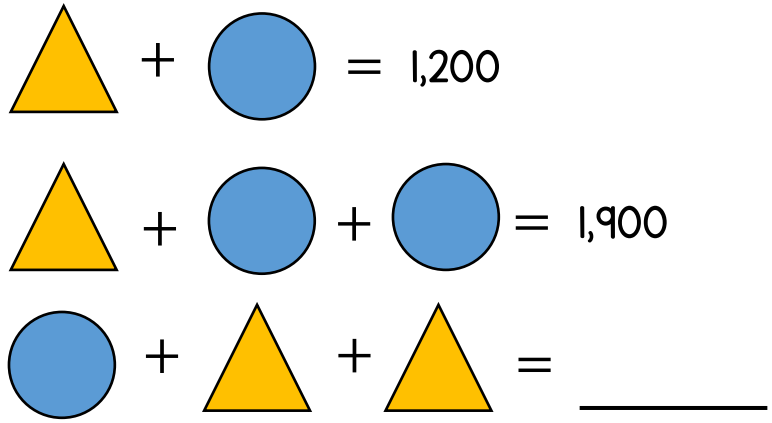
9 Work out the missing number.

84,503 − _____ = 68,125 + 3,900

10 Complete the missing digits.

	8	9		6	2
−		1	3	4	9
	8	7	7		3

11 Find the missing sum.



Year 5

Multiplication and Division

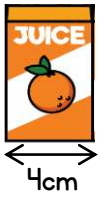
1 Circle all the multiples of 5

15 30 32 79 175 500

2 Write one number **less than 50** in each box.

	Multiple of 6	Not a multiple of 6
Square number		
Not a square number		

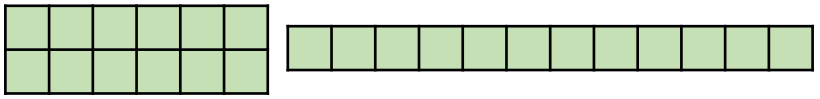
3 One juice box is 4 cm wide.
Eva makes a line of boxes 240 cm long.



How many juice boxes does she line up?

_____ boxes

4 Amir arranges 12 square tiles to make some arrays.



Draw another array of 12 tiles that is **different** to the ones above.

Write down all the factors of 12
You can use the arrays to help you.

_____

5 Alex runs 800 metres.
Whitney runs 10 times as far as Alex.
How much further does Whitney run than Alex?

_____ m

6 Max shades the prime numbers on part of a hundred square.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

He has missed 2 prime numbers.
Shade the prime numbers Max has missed.

7 Here are four cards.

÷ 10	× 10	× 100	÷ 100

Use the cards to complete the calculations.

561,000 ☐ = 5,610

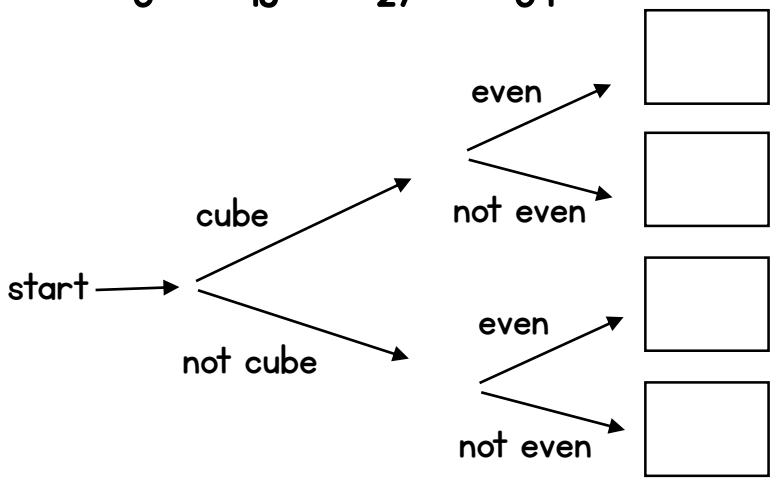
5,610 ☐ = 561,000

561,000 ☐ = 56,100

5,610 ☐ = 56,100

8 Write each number in its correct place on the diagram.

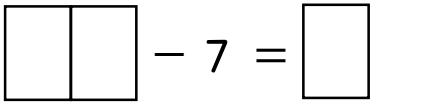
6 15 27 64



9 A pencil case has 20 pencils in it.
A box contains 36 pencil cases.
How many pencils are in a box?

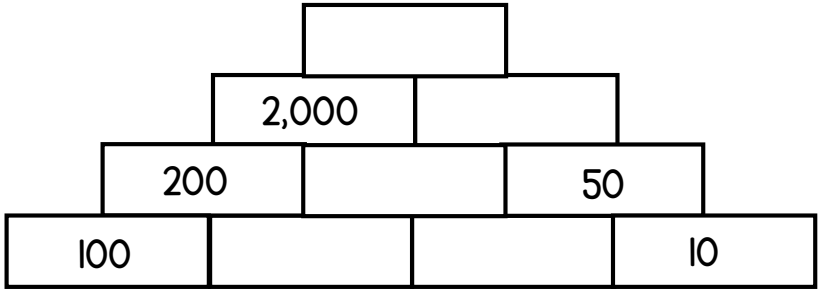
_____ pencils

10 Write a digit in each box to complete the number sentence.



2-digit prime number — 1-digit square number

11 Complete the multiplication pyramid.



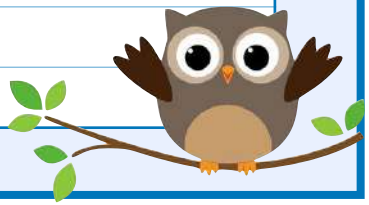
BIG Numbers Puzzle!

First, use your knowledge of place value to rewrite all of the numbers that are on the next page in digits.

Then, use your logic and reasoning skills to add them to the crossword in the correct places!

	3				3	■				0			1	
■		■	■	■	■	■	■	■		■	2	■	■	
■					6			■		■		■	■	9
■		■	■	■	■		■	■	5	■		■	■	
	5				■	0	■	■				3		
■		■	■	■	■		■	■	■	■		■	■	■
■		■	■	■	■		■	■	■	■		■	■	
■		■	■	■	■	1	■	■					8	
	■	■		2					■	■	■	■	■	1
	■	■		■	■	■	■		■	■	■	■	■	
	■	■		■	■	■	■			0			0	
0	■		9						■	■	■	■	■	
	■	■		■	■	■	■	5	■	■	■	■	■	7
	1		4			■						4		

NUMBER IN WORDS	NUMBER IN DIGITS
• Eight million, three hundred thousand, six hundred and twenty five.	
• Three hundred and ninety nine thousand, four hundred and fifty.	
• Six hundred and thirty one thousand, four hundred and thirty three.	
• Eighty five thousand, four hundred and thirty five.	
• Twenty million, one hundred and five thousand, six hundred and seventy two.	
• One hundred and sixty five thousand, nine hundred and four.	
• Twenty eight thousand, nine hundred and ten.	
• Two million, four thousand, three hundred and fifteen.	
• Ninety two million, one hundred and seven thousand, eight hundred and fifty four.	
• Five hundred and forty seven thousand, three hundred and thirty.	
• Thirty seven million, eight hundred and forty five thousand, eight hundred and thirteen.	
• Six hundred and sixty two thousand, and thirty three.	
• Seventy six million, three hundred and nine thousand, five hundred and twelve.	
• Nine million, five hundred and six thousand, four hundred and five.	
• Two hundred and thirty four thousand, four hundred and eighty.	
• Thirty seven thousand, six hundred and fifty five.	
• Three hundred and ten thousand, four hundred and thirty.	
• Thirty million, three hundred and ninety eight thousand, four hundred and eighty two.	
• Eight million, nine hundred and sixty six thousand and twenty four.	
• One hundred and twenty nine thousand, five hundred and three.	



Can you make it through the multiple maze? Start on the shapes. From the diamond you will need to COUNT ON in **multiples of seven** and from the circle you will need to COUNT BACK in **multiples of seven**.

7 x 10 = 70
70 ÷ 10 = 7

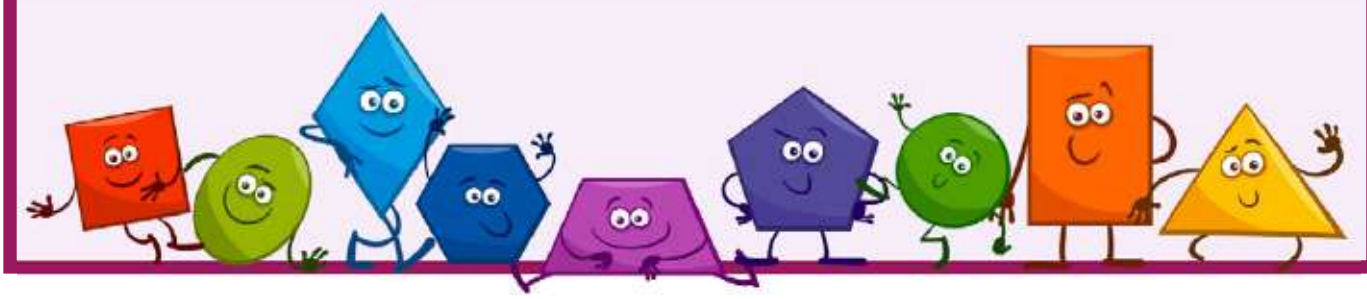
45	9	17	11	23	29	34	17	18	32	53	30	33	40	21	61	55	32	12	19	45	71	43	19	34	67	◯	70	69
12	32	54	22	21	28	35	38	40	8	16	28	35	42	39	15	16	30	24	22	17	23	23	24	56	3	62	63	61
13	6	25	15	14	16	42	40	61	7	14	21	36	49	47	69	14	21	28	30	26	51	54	6	13	53	54	56	11
20	31	57	62	7	9	49	56	63	70	15	23	55	56	63	70	7	34	35	34	54	14	45	18	32	35	42	49	50
19	55	56	63	70	72	48	55	62	68	42	7	35	65	34	68	9	43	42	40	33	26	32	4	26	28	30	52	12
26	47	49	60	72	34	50	54	60	69	57	58	43	5	64	14	3	47	49	48	11	25	9	34	22	21	22	29	32
32	41	42	35	28	30	37	71	36	41	32	17	28	31	40	27	62	55	56	55	8	9	13	20	15	14	16	17	55
4	3	40	33	21	23	24	25	33	39	64	65						70	63	62	60	7	14	21	16	7	70	69	65
16	18	29	15	14	7	8	11	31	52	53	33						2	62	12	65	70	16	28	30	62	63	62	60
8	10	22	53	12	70	63	62	66	7	12	27						68	22	65	62	63	62	35	42	49	56	58	63
◆	7	9	13	35	73	56	58	4	21	4	46						4	7	34	58	56	58	36	40	46	54	55	71
15	14	15	34	27	48	49	42	44	22	12	8						18	20	7	50	49	42	35	28	39	40	15	29
20	21	28	35	36	64	38	35	36	33	75	31	7	9	67	45	12	32	30	38	48	51	39	36	21	20	13	37	41
34	22	26	42	39	14	30	28	21	19	24	15	14	2	34	23	29	27	33	41	40	35	6	15	14	7	10	28	22
45	54	56	49	52	42	34	16	14	15	56	22	21	28	21	25	30	28	35	42	39	55	23	32	17	70	72	9	15
32	62	63	67	19	32	12	8	7	8	32	34	20	35	42	40	20	21	23	49	56	63	65	16	61	63	56	62	25
15	71	70	7	24	30	60	63	70	71	25	26	19	38	49	42	7	14	18	13	11	70	7	14	15	48	49	50	17
47	45	68	14	21	28	54	56	55	5	1	67	18	54	56	63	70	69	67	53	3	69	8	21	28	35	42	6	42
29	34	55	13	20	35	42	49	50	17	56	3	11	45	65	23	68	54	42	12	25	43	9	20	30	36	40	32	14

Vowel-less Shapes!

Below are the names of different 2D and 3D shapes. However, the vowels from each word are missing! Work out each shape from the consonants given.

Good luck! Or should I say, gd lck!

hxgn	sqr	blng	ctgn
trngl	crcl	hptgn	rctngl
pntgn	qdrltrl	plygn	vl
cylndr	cb	sphr	ttrhdrn
cbd	pyrmd	cthdrn	cn
hmsphr	plyhdrn	prsm	ddchdrn



Year 6

Four Operations

A

1 Calculate.

2,140 + 794 = _____

10,000 − 4,192 = _____

3,261 × 7 = _____

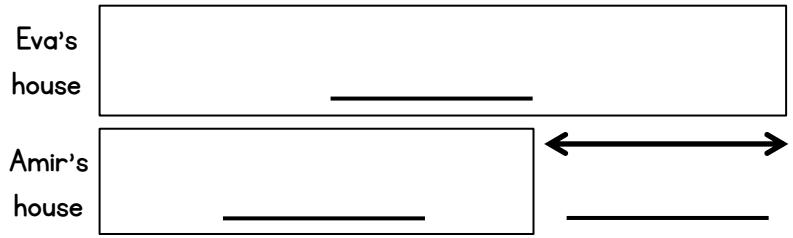
276 ÷ 4 = _____

2 Complete the missing digits.

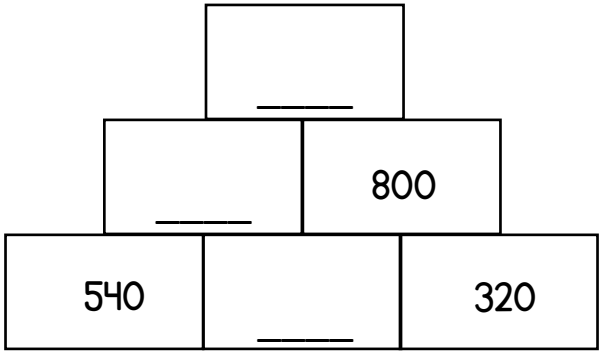
	2	□	7	4
+	□	1	4	□
	5	5	1	7

3 Eva's House is worth £653, 000
Amir's house is worth £179, 000 less than Eva's house.

Complete the bar model to represent the information..



4 Complete the addition pyramid.



5 Amy completes the calculation 145 ÷ 6
She gets a remainder of 7
Explain how you know Amy is incorrect.

6 Pencils are put into packs of 24
There are 3,608 pencils.
How many packs of pencils can be made?

_____ full packs _____ pencils left over.

How many more pencils are needed to make another full pack?

_____

7 Complete the missing numbers.

$8 \times 6 = 4 \times \square$

$\square \div 6 = 444 \div 12$

8 4 boxes weigh 292 kg.
4 boxes and 7 bags weigh 656 kg.
How much does one bag weigh?

_____ kg

9 There are 5 times as many pens in box A than box B.
Tom moves 76 pens from box A to box B.
Both boxes now have the same number of pens.
How many pens are in box A now?

_____ pens

Year 6

Four Operations

B

1 Circle all the square numbers.

1 2 10 49 144

2 Tick the cards that are common factors of 12 and 18

6	9	36	2	4

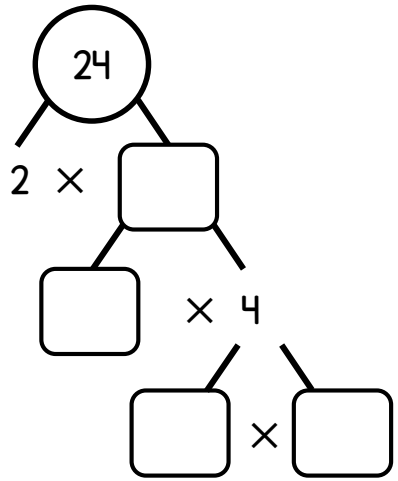
3 Use the fact $12 \div 4 = 3$ to complete the missing numbers.

$120 \div 4 = \square$

$124 \div 4 = \square$

$\square \div 4 = 0.3$

4 Complete the prime factor tree.



5 Which two calculations give the same answer?

A $6 + 4 \times 7$

B $(6 + 4) \times 7$

C $6 + (4 \times 7)$

_____ and _____

6 Tick the card that has the greatest value.

10^2	3^3	5^3

7 Dora thinks of a positive whole number.

She says,

- It is an odd number less than 30
- It is one more than a multiple of 11

Is her number prime?

Explain your reasoning.

8 Complete the table by putting the labels in the correct place.

A	Square number	C	Multiple of 6
B	Not a square number	D	Not a multiple of 6

	36 144	6 24 60 18
D	9 16 100 25 49	7 15 31

9 Work out 89^2

10 Harry uses these digit cards.

- He makes a 3-digit number and a 1-digit number.
- He multiplies them together.
- His answer is odd.

What could the multiplication be?

11 Alex has 3 boxes of eggs.

There are 6 eggs in each box.

He takes one egg out of each box.

Circle the calculation that shows the total number of eggs in the boxes now.

$(3 \times 6) - 1$ $3 \times (6 - 1)$ $3 \times 6 - 1$

12 Work out the missing numbers.

$2 \times 3 + 4 \times \square = 70$

$2 \times (3 + 4) \times \square = 70$

Daily News

Animals World News

Scientists Name New Glitter Worm After Elvis

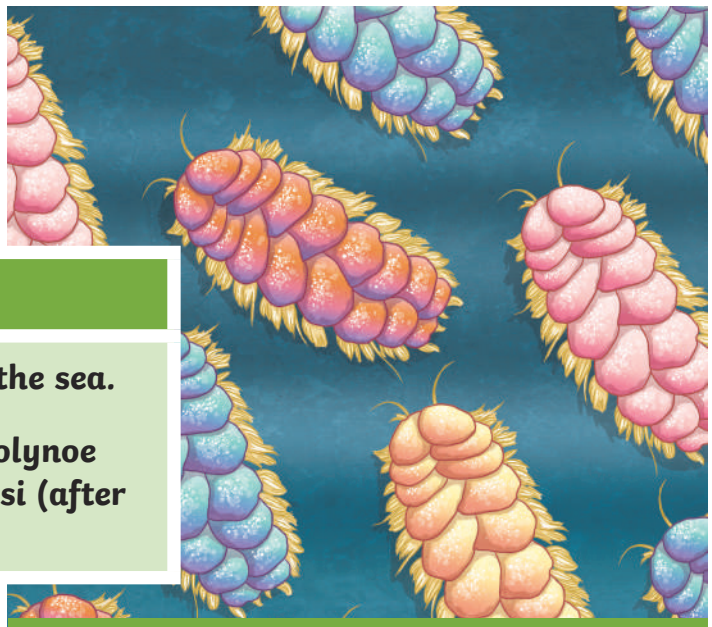


Illustration: One of the new species of scale worm.

What are scales worms?

- **Scale worms live thousands of metres under the sea.**
- **Four new species have been found: Peinaleopolynoe goffrediae; P. mineoi; P. orphanae; and P. elvisi (after Elvis Presley, a famous rock'n'roll singer).**

Scientists have discovered four new species of scale worms. The deep-sea creatures, also called glitter worms due to their shiny scales, live in the depths of the Pacific Ocean.

Scientists from the University of California, San Diego, USA, and Paris-Sorbonne University, France, found the new species living thousands of metres under the sea.

One of the new species has even been called the Elvis scale worm. It gets its name from the 'king of rock' because Elvis Presley was famous for his bright, sequined outfits.

These scale worms were found at Monterey Canyon, California, the Gulf of California, in Mexico, and Costa Rica, a country in Central America.

So, what do we know about scale worms? The scientific name for scale worms is Peinaleopolynoe. It means 'hungry scale worm' in Greek. They're called this because scale worms are found close to their food. It feeds on the bodies of dead creatures, such as whales.

The bright colour of their scales remains a mystery to scientists as they don't understand why these creatures evolved them.

While they may look cute, their behaviour towards other scale worms can be less than friendly. Scientists say that some of their scales were damaged due to fighting between rival worms.

The team of researchers were fascinated by how the scale worms survive in a harsh environment. They're found in areas under the sea where there is very little oxygen.

Animals need oxygen to breathe, but a scale worms gills have evolved so they can survive in this environment. One of the glitter worms was found living near a vent of an underwater volcano.

For the team of scientists, there's still more to discover and learn about the deep seas.

In a statement on the University of California San Diego's website, Avery Hatch, one of the researchers, said, "It is hard to believe that the deep sea is still largely unexplored and teeming with mysterious animals waiting to be discovered."

Glossary

species	Living things with similar characteristics that produce young.
evolved	How animals change over a long time.
gills	An organ in a sea creature's body that helps it to breathe.
vent	An opening that allows air, gas, or liquid to pass out.

Questions

1. Find and copy the two countries the scientists came from.

   1. _____

   2. _____

2. Why was one of the new species of scale worm named after Elvis Presley?

   _____

   _____

   _____

3. Scale worms can occasionally be violent. Find one piece of evidence that supports this.

   _____

   _____

   _____

4. "It is hard to believe that the deep sea is still largely unexplored and teeming with mysterious animals waiting to be discovered."
   Tick the word that is closest in meaning to 'teeming'.

   - ○ discover
   - ○ empty
   - ○ full of
   - ○ hidden

5. Why do you think the deep seas are still 'largely unexplored'? Explain your answer.

   _____

   _____

   _____

6. Write a summary of the story in 15 words or fewer.

   _____

   _____

   _____

Glitter Worms

c	m	k	s	p	e	c	i	e	s	a	r
e	a	e	o	x	i	n	i	p	c	w	e
v	m	l	x	c	q	t	j	a	o	i	s
o	v	o	i	i	e	v	v	c	s	u	e
l	g	o	n	f	c	a	e	i	t	g	a
v	l	i	l	t	o	o	n	f	a	s	r
e	l	j	l	c	e	r	t	i	r	e	c
d	y	n	v	l	a	r	n	c	i	q	h
s	c	a	l	e	s	n	e	i	c	c	e
c	o	x	y	g	e	n	o	y	a	o	r
q	s	c	i	e	n	t	i	s	t	s	s
c	g	l	i	t	t	e	r	k	l	m	n

California	Costa Rica	Mexico	gills
volcano	evolved	scales	researchers
ocean	species	Pacific	glitter
vent	Monterey	oxygen	scientists

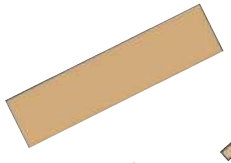
Awe and Wonder

Marvellous Marbles

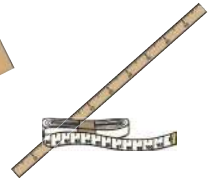
You will need:

a large marble

a smaller marble



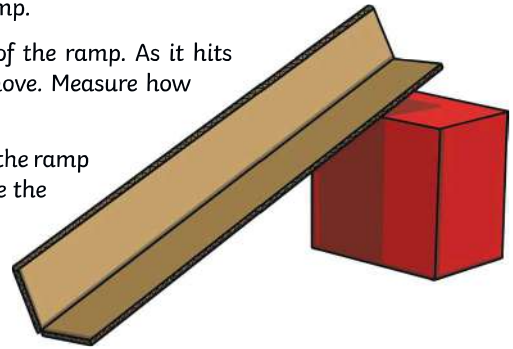
a long piece of card (about 1 metre long)



tape measure or 1 metre ruler

Method:

1. Cut your card into a long piece about 1metre long and about 10cm wide. Fold it lengthways in the middle to create a long 'v' shape.
2. In a clear space, place the ramp at an angle (you can hold it or place items underneath), put the large marble at the bottom of the ramp and place your tape measure or ruler alongside travelling away from the ramp.
3. Roll the smaller marble from the top of the ramp. As it hits the larger marble, it should make it move. Measure how far the marble has moved.
4. Repeat using different-sized marbles or the ramp at a different angle. How can you make the large marble travel as far as possible?



The Science

The motion of the smaller marble hitting the larger marble creates a pushing force on the larger marble causing it to move. The higher the angle of the ramp or the larger the marble, the faster the marble will travel. By moving faster, the smaller marble will create a larger pushing force when it hits the larger marble, causing it to move further.

Marvellous Marbles

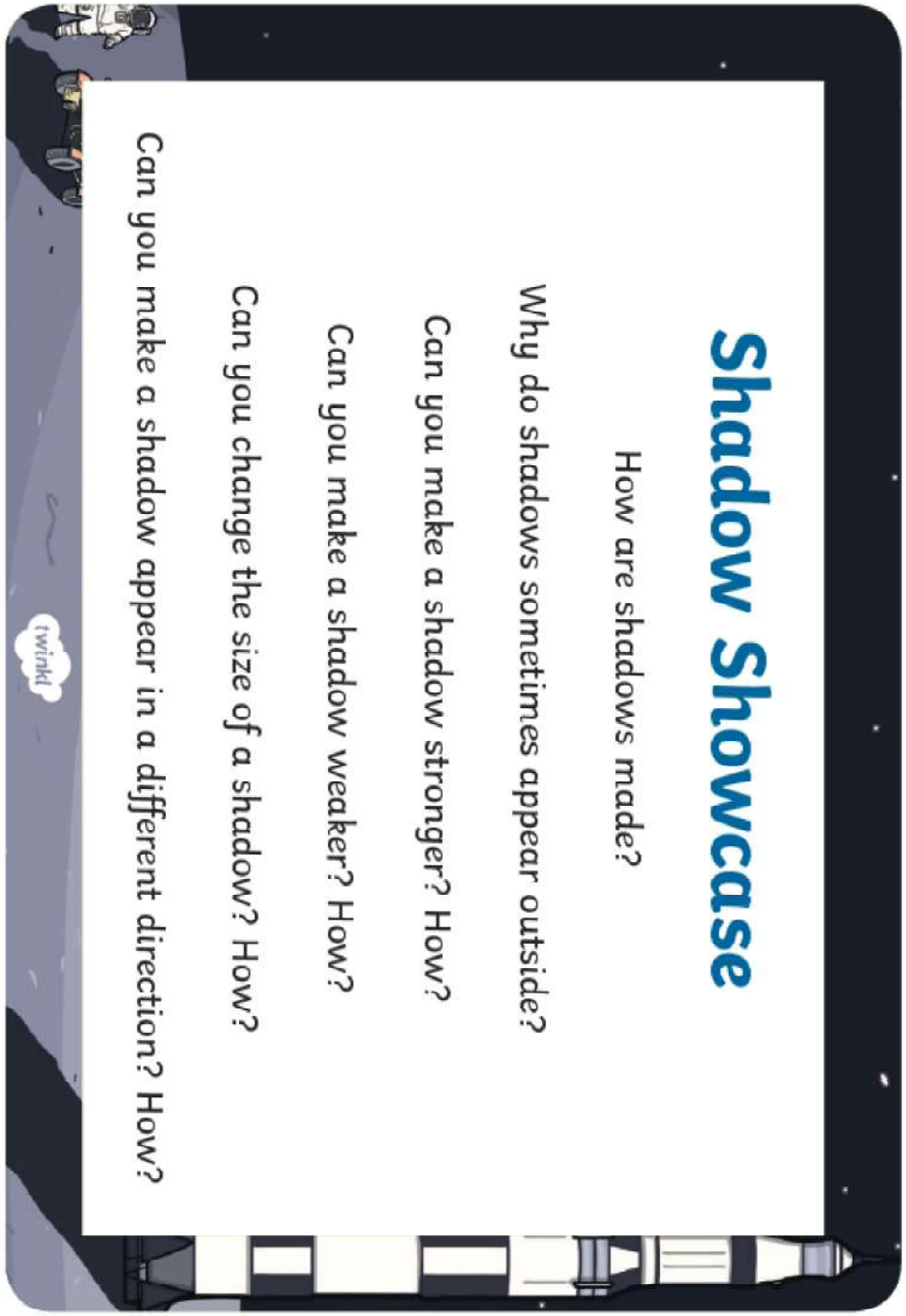
How can you make the larger marble travel further?

What do you think would happen if you rolled the large marble into the smaller marble?

What do you think would happen if you used a shorter ramp?

What do you think would happen if you used a longer ramp?

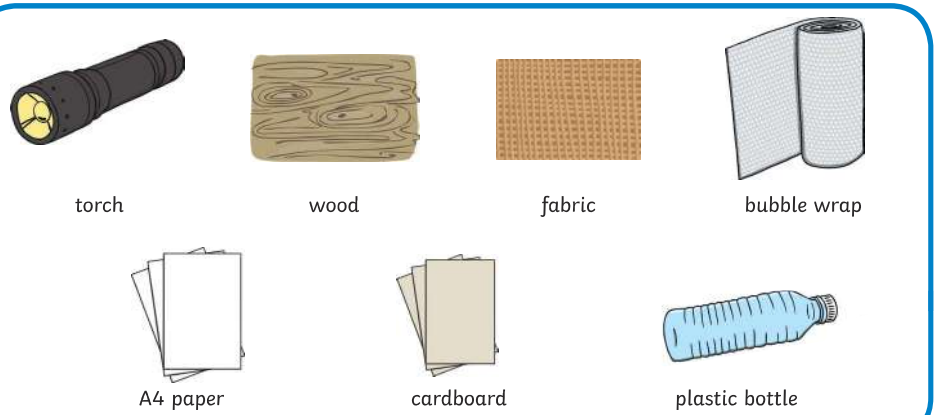
What do you think would happen if you did this experiment on a different surface (e.g. carpet, gravel, grass?) Why?



Awe and Wonder

Shadow Showcase

You will need:



Method:

1. Make sure you are in a dark room (clear the area of things you can trip over).
2. Turn on the torch and shine it at a blank wall.
3. Try and create shadows with each material.
4. Use the **Shadow Showcase Recording Sheet** to note down how well each material makes shadows.

The Science

Light can only travel in a straight line. Shadows are made when light is blocked by an object. Stronger shadows are made by **opaque** materials, which light can't pass through. **Translucent** materials let some light through, so still make shadows, but they are not as strong as those made my opaque materials. **Transparent** materials let light through, so they make very weak shadows, if they make a shadow at all!

Shadow Showcase Recording Sheet

Material	Observations
wood	
fabric	
bubble wrap	

Material	Observations
A4 paper	
cardboard	
plastic bottle	

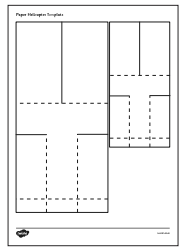
Which material made the best shadow? Why?	Which material made the worst shadow? Why?

Awe and Wonder

Sycamore Seed Helicopters

You will need:

scissors

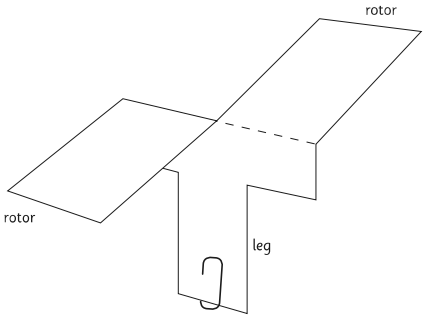


helicopter template

paper clips

Method:

1. Cut out the helicopter template carefully using scissors.
2. Fold along the dotted lines as shown to make a 'T' shape.
3. Attach a paper clip to the bottom of the helicopter.
4. Hold your helicopter in the air and release. Watch it spin to the ground.



The Science

Sycamore seeds are designed to catch the wind as they fall and 'fly' far away from the tree in order to grow a new tree. The air pushes upwards against the 'wings' of the seed (and the arms of your helicopter) and pushes them in opposite directions, making the seed spin.

Sycamore Seed Helicopters

Why does the helicopter spin in a circle?

Can you make the helicopter fall quicker?

Can you make the helicopter fall slower?

What do you think would happen if you didn't add the paper clip to the bottom of the helicopter?

What do you think would happen if you gave the helicopter 4 propellers?

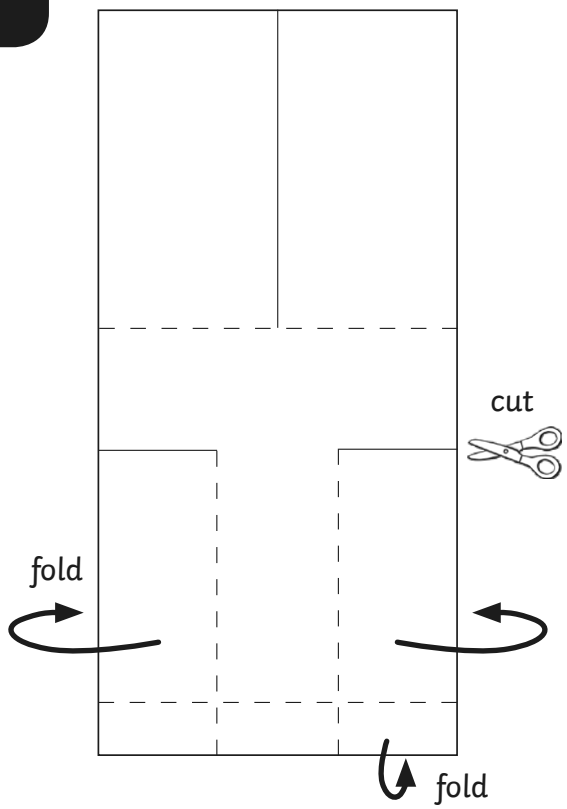
Why do you think sycamore seeds need to travel a long way?

What would happen if they landed close to the tree?

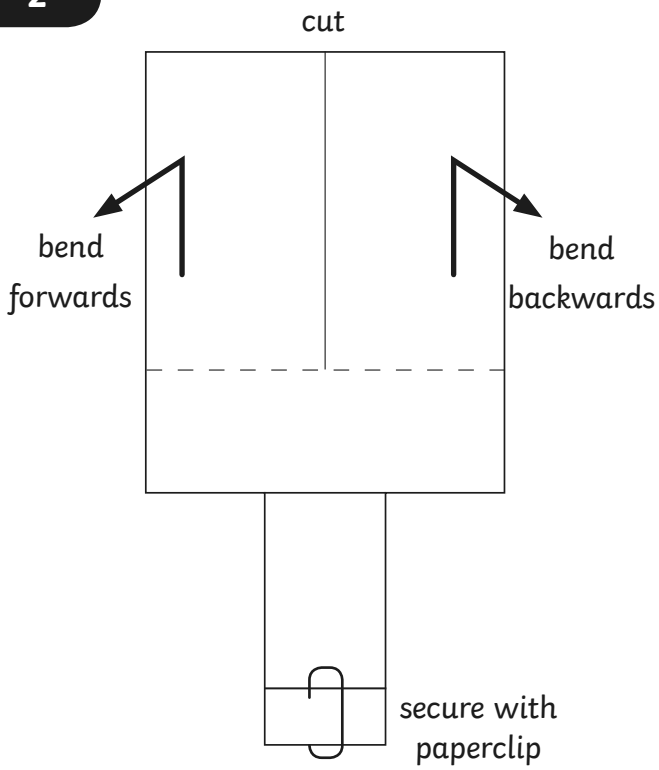
Paper Helicopter Instructions

Cut along the solid lines and fold along the dashed lines.

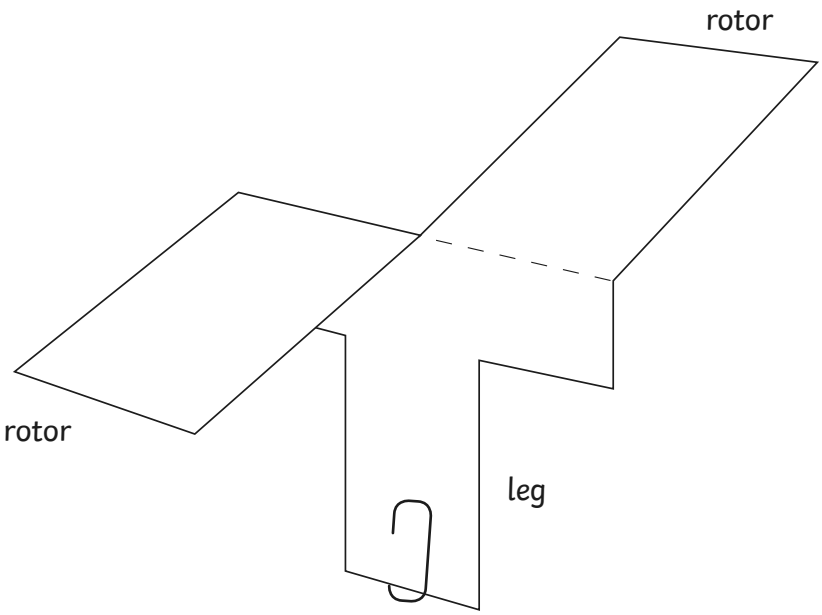
1



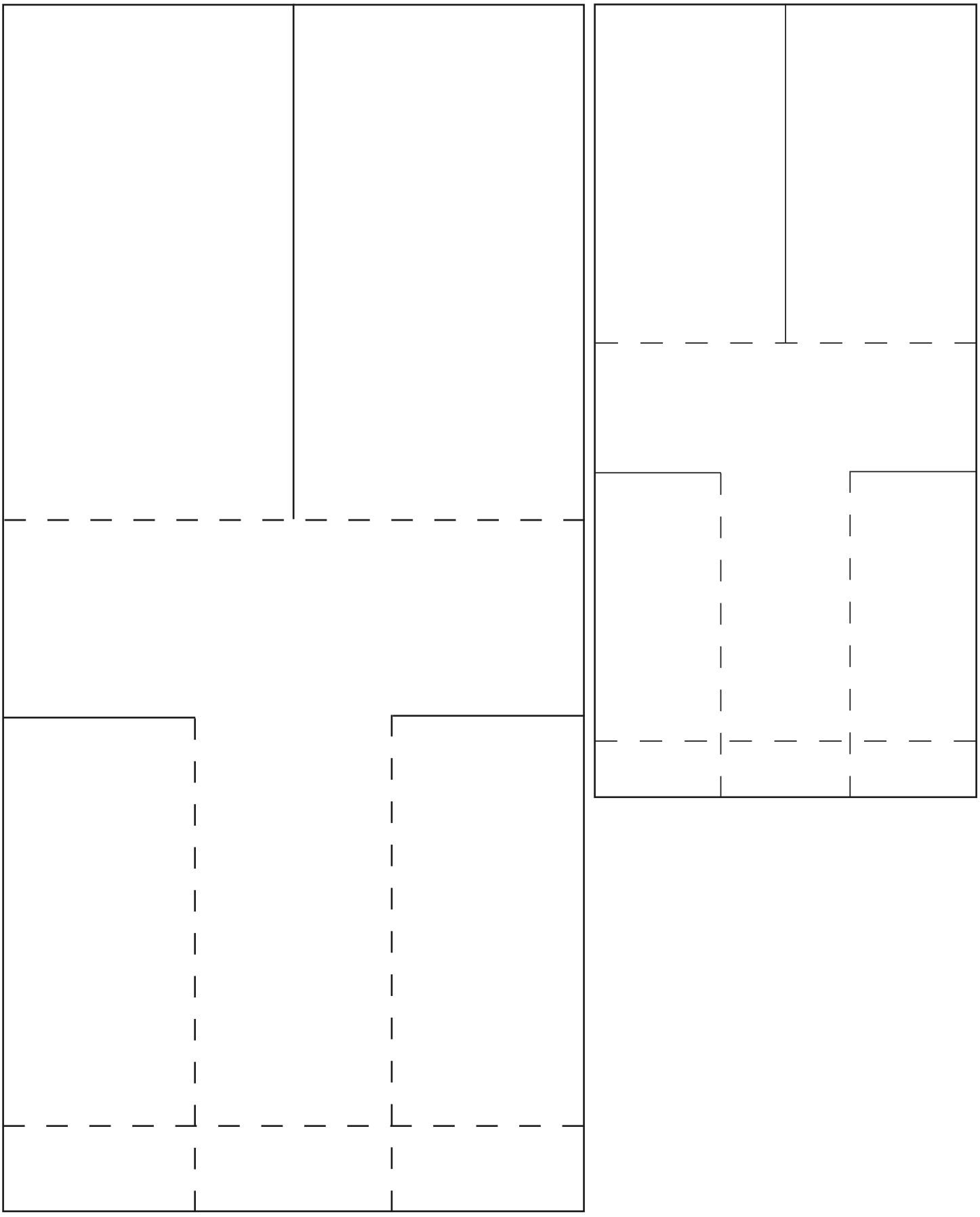
2



3



Paper Helicopter Template



Awe and Wonder

Squeezy Bottle Rocket

You will need:


empty water bottle (with sports cap)


straws (one slightly wider than the other)


cardboard


scissors


glue/sticky tape

sticky tack


modelling clay

Method:

1. Lift up the sports cap on the bottle and push in half of the thinner straw. Seal around it with modelling clay.
2. Squeeze the bottle to make sure the air comes out of the straw, not the sides (you may need to add more modelling clay if it comes out of the sides).
3. On the cardboard, design and cut out your model rocket.
4. Block one end of the wider straw with sticky tack and attach the rocket onto the side of the straw at the sealed end.
5. Place the wider straw over the thinner straw to sit your rocket on top of the bottle.
6. Squeeze the bottle and your rocket should lift off!

The Science

The pressure of the air being forced up out of the bottle pushes against the sealed end of the straw, pushing the rocket up into the air.

Squeezy Bottle Rockets

How could you make your rocket fly further?

How could you make your rocket fly a shorter distance?

What do you think would happen if you used a larger bottle?

What do you think would happen if you used a smaller bottle?

Can you find a way to measure how far your rocket travels?

Answers

Use your **green** and **pink** highlighters to check your answers just like you would in the classroom.

If an answer is not correct, look again at your question so you understand what mistake you have made.

Answers

1. What as the name of London's oldest purpose-built theatre?
   the Red Lion

2. Name one difference, according to the article, between the Red Lion Theatre and most modern day theatres.
   The Red Lion theatre had no roof and was open to all different kinds of weathers.

3. ''Even though he lived so long ago, we still study his plays.'' This suggests...

   ○ We still don't understand it.
   ○ Shakespeare is not interesting.
   ⊘ **Shakespeares plays are impressive.**
   ○ We need some new plays.

4. Tick each statement to show whether it is a fact or an opinion.

	Fact	Opinion
Archaeologists think they have found London's oldest purpose-built theatre.	✓	
The owner of the Red Lion is inspirational.		✓
One of the first theatres was called The Theatre.	✓	
Shakespeare is hard to understand.		✓

5. What do you think historians will think about this news?
   Accept any reasonable answer that refers to historians finding the news interesting, e.g. I think that historians will find this news exciting because this is the discovery of the first purpose-built theatre in London.

6. Summarise the key information in this article in 15 words or fewer.
   Accept any reasobale answer which summarises the story in 15 words or fewer, e.g. The oldest purpose-built theatre in london has been discovered it dates to about 1567.

Answers

1. Why do you think the author uses the word 'groundbreaking' to describe athletes like Lily Parr?
   Accept any reasonable answer which refers to the news story, e.g. The author uses the phrase 'groundbreaking' to describe Lily Parr because she was among the first professional female footballers.

2. What will the new gallery at the National Football Museum be about?
   Accept any reasonable answer that refers to the gallery being about Lilly Parr's Life, e.g. The new exhibit at the National Football Museum will be about Lily Parr and her influence on football.

3. Attendance for women's football games dropped after 1921. Use the news story to explain why you think this was.
   Accept any answer that refers to the FA banning women from playing on their pitches in 1921, e.g. I think attendance for women's football games dropped after 1921 because they weren't allowed to use the FA's football pitches.

4. Why do you think the National football museum have created a gallery about Lily's life?
   Accept any reasonable answer that refers to how Lily's career is inspirational, e.g. I think the museum decided to create a gallery about Lily's life because she was an amazing footballer who should be more well known.

5. Number these events in Lily Parr's career in the order in which they occured. One has been done for you.

   [3] **The FA banned women from playing on their pitches.**
   [4] **A gallery about her life was created.**
   [1] **She began her career.**
   [2] **She took part in the first recognised international women's football match.**

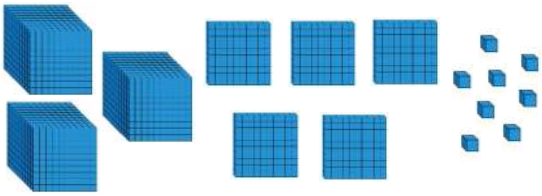
6. Summarise this news story in 15 words or fewer.
   Accept any reasonable summary which is 15 words or fewer, e.g. Lily Parr, a famous footballer, has been given a gallery at the National Football Museum.

Year 5
Addition and Subtraction

1 Mo represents a number using counters.

1,000s	100s	10s	1s
1000	100 100 100 100	10 10 10 10 10 10 10	1 1 1 1

Alex represents a number using Base 10



What is the total of their numbers?

4,982

2 Amir's car costs £1,749
Whitney's car costs £2,300
What is the difference between the cost of the two cars?

£ 551

3 Max says, "460 plus 1340 equals 1700"
Use a subtraction to show that Max is wrong.

1700 - 460 = 1240
or
1700 - 1340 = 360

4 Work out the missing number in the bar model?

17,540		
3,960	12,940	640

5 Complete the missing numbers.

10,300 + 5,420 = 9,300 + 6,420

10,300 + 5,420 = 10,500 + 5,220

6 The numbers in this sequence decrease by the same amount each time.
Complete the sequence.

64,290 63,390 62,490 61,590

7 On Saturday a zoo has 50,285 visitors.
On Sunday the zoo has 10,500 more visitors than Saturday.
The zoo keeper says, "We have had over one hundred thousand visitors across the two days."
Do you agree? Explain your answer.

Agree - 50,285 + 10,500 = 60,785
50,285 + 60,785 = 111,070
Or reference to the fact there are over 50,000 each day which means the total must be over 100,000

8 Work out

10,000 − 4,318

5,682

126,000 + 7,500

133,500

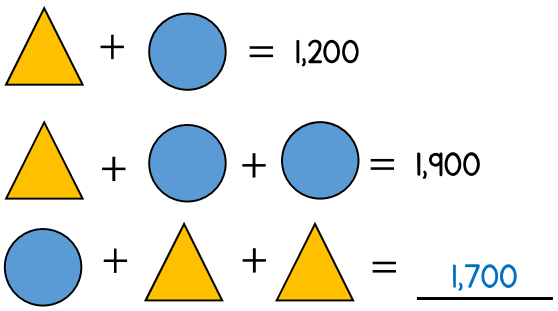
9 Work out the missing number.

84,503 − 12,478 = 68,125 + 3,900

10 Complete the missing digits.

	8	9	0	6	2
−		1	3	4	9
	8	7	7	1	3

11 Find the missing sum.



Year 5
Multiplication and Division

1 Circle all the multiples of 5

15 30 32 79 175 500

2 Write one number **less than 50** in each box.

	Multiple of 6	Not a multiple of 6
Square number	36	1, 4, 9, 16, 25, 49
Not a square number	6, 12, 18, 24, 30, 42, 48	2, 3, 5, 7, 8, 10, 11, 13, 14, 15...

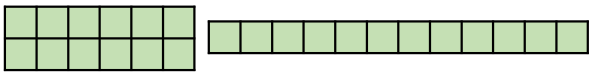
Award 1 mark for any two boxes.
Award 2 marks for all four boxes completed.

3 One juice box is 4 cm wide.
Eva makes a line of boxes 240 cm long.

How many juice boxes does she line up?

60 boxes

4 Amir arranges 12 square tiles to make some arrays.



Draw another array of 12 tiles that is **different** to the ones above.

Answers may include variations to the examples above or:
3 × 4
4 × 3

Write down all the factors of 12
You can use the arrays to help you.

1, 2, 3, 4, 6, 12

5 Alex runs 800 metres.
Whitney runs 10 times as far as Alex.
How much further does Whitney run than Alex?

Award 1 mark for 1 correct step of calculation.
Award 2 marks for a correct answer of 7,200

7,200 m

6 Max shades the prime numbers on part of a hundred square.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

He has missed 2 prime numbers.
Shade the prime numbers Max has missed. 17 and 29

7 Here are four cards.

÷ 10 × 10 × 100 ÷ 100

Use the cards to complete the calculations.

Award 1 mark for 1 correct answer.
Award 2 marks for 2 correct answers.
Award 3 marks for 4 correct answers.

561,000 [÷ 100] = 5,610

5,610 [× 100] = 561,000

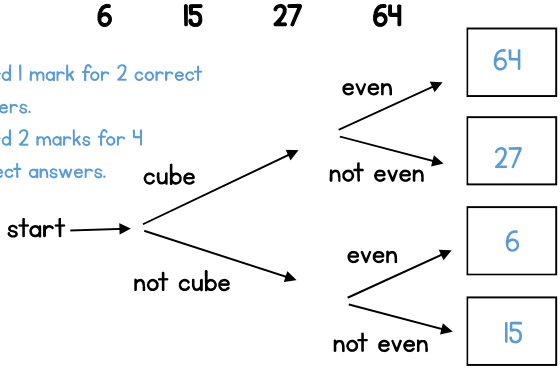
561,000 [÷ 10] = 56,100

5,610 [× 10] = 56,100

8 Write each number in its correct place on the diagram.

6 15 27 64

Award 1 mark for 2 correct answers.
Award 2 marks for 4 correct answers.



9 A pencil case has 20 pencils in it.
A box contains 36 pencil cases.
How many pencils are in a box?

720 pencils

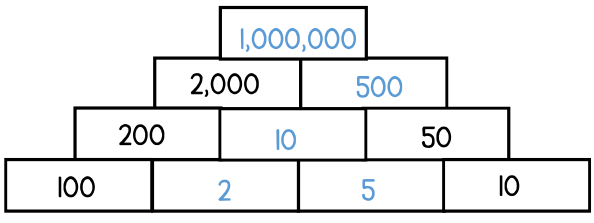
10 Write a digit in each box to complete the number sentence.

[1][1] − 7 = [4]

2-digit prime number
1-digit square number

Award 1 mark for 1 correct number.

11 Complete the multiplication pyramid.



Award 1 mark for 3 correct numbers.

Can you make it through the multiple maze? Start on the shapes. From the diamond you will need to COUNT ON in **multiples of seven** and from the circle you will need to COUNT BACK in **multiples of seven**.

7 x 10 = 70
70 ÷ 10 = 7

45	9	17	11	23	29	34	17	18	32	53	30	33	40	21	61	55	32	12	19	45	71	43	19	34	67	●	70	69
12	32	54	22	21	28	35	38	40	8	16	28	35	42	39	15	16	30	24	22	17	23	23	24	56	3	62	63	61
13	6	25	15	14	16	42	40	61	7	14	21	36	49	47	69	14	21	28	30	26	51	54	6	13	53	54	56	11
20	31	57	62	7	9	49	56	63	70	15	23	55	56	63	70	7	34	35	34	54	14	45	18	32	35	42	49	50
19	55	56	63	70	72	48	55	62	68	42	7	35	65	34	68	9	43	42	40	33	26	32	4	26	28	30	52	12
26	47	49	60	72	34	50	54	60	69	57	58	43	5	64	14	3	47	49	48	11	25	9	34	22	21	22	29	32
32	41	42	35	28	30	37	71	36	41	32	17	28	31	40	27	62	55	56	55	8	9	13	20	15	14	16	17	55
4	3	40	33	21	23	24	25	33	39	64	65						70	63	62	60	7	14	21	16	7	70	69	65
16	18	29	15	14	7	8	11	31	52	53	33						2	62	12	65	70	16	28	30	62	63	62	60
8	10	22	53	12	70	63	62	66	7	12	27						68	22	65	62	63	62	35	42	49	56	58	63
◆	7	9	13	35	73	56	58	4	21	4	46						4	7	34	58	56	58	36	40	46	54	55	71
15	14	15	34	27	48	49	42	44	22	12	8						18	20	7	50	49	42	35	28	39	40	15	29
20	21	28	35	36	64	38	35	36	33	75	31	7	9	67	45	12	32	30	38	48	51	39	36	21	20	13	37	41
34	22	26	42	39	14	30	28	21	19	24	15	14	2	34	23	29	27	33	41	40	35	6	15	14	7	10	28	22
45	54	56	49	52	42	34	16	14	15	56	22	21	28	21	25	30	28	35	42	39	55	23	32	17	70	72	9	15
32	62	63	67	19	32	12	8	7	8	32	34	20	35	42	40	20	21	23	49	56	63	65	16	61	63	56	62	25
15	71	70	7	24	30	60	63	70	71	25	26	19	38	49	42	7	14	18	13	11	70	7	14	15	48	49	50	17
47	45	68	14	21	28	54	56	55	5	1	67	18	54	56	63	70	69	67	53	3	69	8	21	28	35	42	6	42
29	34	55	13	20	35	42	49	50	17	56	3	11	45	65	23	68	54	42	12	25	43	9	20	30	36	40	32	14

Year 6
Four Operations
A

1 Calculate.

2,140 + 794 = 2,934

10,000 − 4,192 = 5,808

3,261 × 7 = 22,827

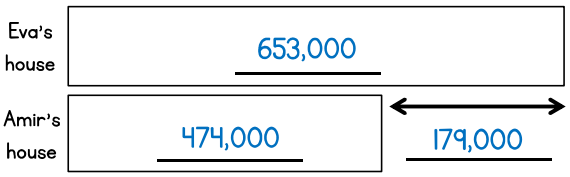
276 ÷ 4 = 69

2 Complete the missing digits.

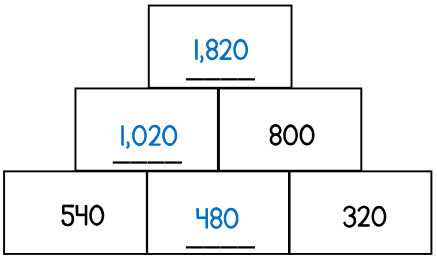
	2	3	7	4
+	3	1	4	3
	5	5	1	7

3 Eva's House is worth £653, 000
Amir's house is worth £179, 000 less than Eva's house.

Complete the bar model to represent the information..



4 Complete the addition pyramid.



5 Amy completes the calculation 145 ÷ 6
She gets a remainder of 7
Explain how you know Amy is incorrect.

If the divisor is 6 then the remainder cannot be greater than 5

6 Pencils are put into packs of 24
There are 3,608 pencils.
How many packs of pencils can be made?

150 full packs 8 pencils left over.

How many more pencils are needed to make another full pack?

16

7 Complete the missing numbers.

$8 \times 6 = 4 \times \boxed{12}$

$\boxed{222} \div 6 = 444 \div 12$

8 4 boxes weigh 292 kg.
4 boxes and 7 bags weigh 656 kg.
How much does one bag weigh?

52 kg

9 There are 5 times as many pens in box A than box B.
Tom moves 76 pens from box A to box B.
Both boxes now have the same amount of pens.
How many pens are in box A now?

114 pens

Year 6
Four Operations B
Answers

1 Circle all the square numbers.

(1) 2 10 (49) (144)

2 Tick the cards that are common factors of 12 and 18

6 ✓ | 9 | 36 | 2 ✓ | 4

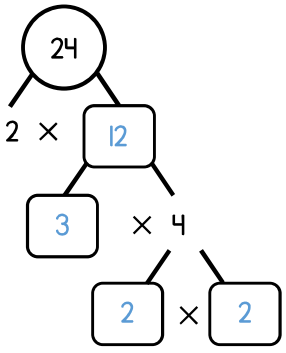
3 Use the fact 12 ÷ 4 = 3 to complete the missing numbers.

$120 \div 4 = \boxed{30}$

$124 \div 4 = \boxed{31}$

$\boxed{1.2} \div 4 = 0.3$

4 Complete the prime factor tree.



5 Which two calculations give the same answer?

A $6 + 4 \times 7$

B $(6 + 4) \times 7$

C $6 + (4 \times 7)$

A and C

6 Tick the card that has the greatest value.

10^2 | 3^3 | 5^3 ✓

7 Dora thinks of a positive whole number.

She says,

- It is an odd number less than 30
- It is one more than a multiple of 11

Is her number prime? YES

Explain your reasoning.

There are two numbers less than 30 that are one more than a multiple of 11
These are 12 and 23
12 is even and 23 is odd so Dora is thinking of 23
23 has 2 factors, 1 and 23 , so it is a prime number.

8 Complete the table by putting the labels in the correct place.

A Square number
B Not a square number
C Multiple of 6
D Not a multiple of 6

	A	B
C	36 144	6 24 60 18
D	9 16 100 25 49	7 15 31

Award 1 mark for 1 correct answer

9 Work out 89^2

Award 1 mark for 1 step of correct calculation. 7,921

10 Harry uses these digit cards.

- He makes a 3-digit number and a 1-digit number.
- He multiplies them together.
- His answer is odd.

What could the multiplication be?

Possible answers:
485 × 7
487 × 5
845 × 7
847 × 5

11 Alex has 3 boxes of eggs.
There are 6 eggs in each box.
He takes one egg out of each box.
Circle the calculation that shows the total number of eggs in the boxes now.

$(3 \times 6) - 1$ $3 \times (6 - 1)$ $3 \times 6 - 1$

12 Work out the missing numbers.

$2 \times 3 + 4 \times \boxed{16} = 70$

$2 \times (3 + 4) \times \boxed{5} = 70$

Scientists Name New Glitter Worm After Elvis

Answers

1. Find and copy the two countries the scientists came from.
   Accept France and the USA.
2. Why was one of the new species of scale worm named after Elvis Presley?
   Accept an answer which refers to the following part of the news story: One of the new species has even been called the Elvis scale worm. It gets its name from the 'king of rock' because Elvis Presley was famous for his bright, sequined outfits.
3. Scale worms can occasionally be violent. Find one piece of evidence that supports this.
   Accept an answer which refers to the following: Scientists say that some of their scales were damaged due to fighting.
4. "It is hard to believe that the deep sea is still largely unexplored and teeming with mysterious animals waiting to be discovered."
   Tick the word that is closest in meaning to 'teeming'.
   - ○ discover
   - ○ empty
   - ⊘ **full of**
   - ○ hidden
5. Why do you think the deep seas are still 'largely unexplored'? Explain your answer.
   Accept any answer which refers to the story, e.g. I think the deep seas are still 'largely unexplored' because there is little oxygen down there, which people need to breathe.
6. Write a summary of the story in 15 words or fewer.
   Accept any answer reasonable summary which refers to the story and is 15 words or fewer in length, e.g. Scientists from France and the USA have discovered four new species of scale worm.


You're
the best