

Holiday Challenge: Writing

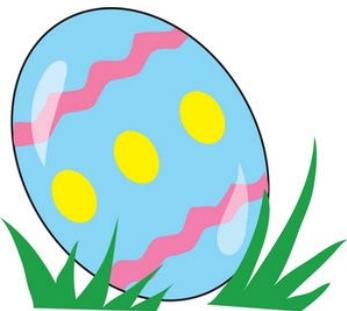
‘10 Challenges for 10 Days’

This booklet is designed to keep your brains ‘ticking over’ during the Easter break. Just a few short activities will mean that you return to Year 6 ready to learn and raring to go! Try to really impress your teacher by completing one challenge for each day of the holidays. Circle any questions that you’d like some more help with when term starts again.

Commissioned by The PiXL Club Ltd.

This resource is strictly for the use of member schools for as long as they remain members of The PiXL Club. It may not be copied, sold nor transferred to a third party or used by the school after membership ceases. Until such time it may be freely used within the member school. All opinions and contributions are those of the authors. The contents of this resource are not connected with nor endorsed by any other company, organisation or institution.

© Copyright The PiXL Club Limited



Editing challenge – day one

This piece of text needs editing for **spelling** errors. Underline ten errors and write the correction, explaining why each is wrong.

It was ridiculous! Nobody else had such a strict mother. Nobody else had such stupid limits imposd upon them. He new for definatue that Colby's mum let him go on his tablet all night long. And Radley's mum's boyfriend always let him play on his 18 certificate games. So why did he have to have these unfair limits on his screen time?

Heavy rain ratled against his window. Even though it was early afternoon, the light was fading dramaticly. A long, slow rumble anounced the approach of the heart of the storm. At least it made a change from Mum angrily banging furniture around, the way she often did after an arguement.

Crash! A bright burst of lightening was followed almost instantly by a deafaning crack of thunder. Harley jumped up and poked his head out of his door. Mum was just down the hall, shoving towels into the airing cuboard. "Are you alright, love?" she asked kindly.

Think:

- What spelling rules do I know?
- Which part of the word doesn't look right?

1. _____

Explanation: _____

2. _____

Explanation: _____

3. _____

Explanation: _____

4. _____

Explanation: _____

5. _____

Explanation: _____

6. _____

Explanation: _____

7. _____

Explanation: _____

8. _____

Explanation: _____

9. _____

Explanation: _____

10. _____

Explanation: _____

Editing challenge – day two

This piece of text needs editing for **spelling** errors. Underline ten errors and write the correction, explaining why each is wrong.

What affects shadow size?

The angle between the direction of the light and the surface on which the shadow is cast will determine how long the shadow is. When the sun is low in the sky, like in the morning or evening, shadows seem much ‘taller’ than the objects causing them. When, however, the sun is higher in the sky, the shadows are shorter.

It also matters where the object is placed between the light and the surface. If you move it closer to the source, the shadow on the surface will look bigger; move it in the other direction and the shadow will get smaller.

Fun with shadows

Shadows can be used for entertainment. The idea for shadow puppets originally came from China but it has now caught on around the world. You can even make your own, but just remember, no matter how good you are at art, the shadow will never show any designs or features that you draw on to your puppet. You need to cut out any details, such as eyes, that you want to appear as part of the shadow. Alternatively, you can use your hands and fingers to make shadow animals – dogs, rabbits and butterflies are the easiest to make.

Think:

- What spelling rules do I know?
- Which part of the word doesn’t look right?

1. _____

Explanation: _____

2. _____

Explanation: _____

3. _____

Explanation: _____

4. _____

Explanation: _____

5. _____

Explanation: _____

6. _____

Explanation: _____

7. _____

Explanation: _____

8. _____

Explanation: _____

9. _____

Explanation: _____

10. _____

Explanation: _____

Editing challenge – day three

This piece of text needs editing for **grammar and punctuation** errors. Underline ten errors and write the correction, explaining why each is wrong.

He saw it the moment he returned to his room. There, on the blackboard he hadnt really used for years, was a message scrawled in chalk TIDY UP YOUR ROOM. Pathetic, Mum.” muttered Harley. Crash Another thunderclap made him jump out of his skin. When his heart had stopped racing he went off down the corridor again. Trying to hide his relief at spotting Mum in the living room, he grumpily asked for some juice and stomped into the kitchen

By the time he had returned to his room, the message had changed: IT MIGHT HELP TO PASS THE TIME. That was quick, thought Harley – he’d only been gone a minute or so and he wasnt aware of Mum having moved. Grudgingly he decided to follow the suggestion, crawling on his stomach to make a start under his bed. After all, what else was there to do.

Think:

- What grammar rules do I know?
- When I read the writing aloud, does the punctuation sound right?

1. _____

Explanation: _____

2. _____

Explanation: _____

3. _____

Explanation: _____

4. _____

Explanation: _____

5. _____

Explanation: _____

6. _____

Explanation: _____

7. _____

Explanation: _____

8. _____

Explanation: _____

9. _____

Explanation: _____

10. _____

Explanation: _____

Editing challenge – day four

This piece of text needs editing for **grammar and punctuation** errors. Underline ten errors and write the correction, explaining why each is wrong.

Holidays can be more than just a chance to top up your tan, however. By visiting other countries, you can get a better understanding of different people and foreign culture’s. You might even be inspired to learn some of the language in order to communicate with local people. Whats more, by spending your holiday cash in their shops and restaurants, you will be helping to support families whose lives depend on tourism. On your own, you might think that you can only make a small difference, but if enough people do make the effort to go abroad, then it could help to promote better relations between nations, which has to be a good thing

On the other hand you might well argue that there are plenty of excellent reasons to enjoy a ‘staycation’ as it has become known. For a start, the UK is a wonderfully diverse and fascinating place. Whether your interested in history culture, sporting activities, or spectacular scenery, we have it all here in our own country. There are even plenty of wonderful beaches where you do’nt have to worry about what dangerous creatures might be lurking beneath the waves.)

Think:

- What grammar rules do I know?
- When I read the writing aloud, does the punctuation sound right?

1. _____

Explanation: _____

2. _____

Explanation: _____

3. _____

Explanation: _____

4. _____

Explanation: _____

5. _____

Explanation: _____

6. _____

Explanation: _____

7. _____

Explanation: _____

8. _____

Explanation: _____

9. _____

Explanation: _____

10. _____

Explanation: _____

Editing challenge – day five

This piece of text needs editing **for meaning**. Underline ten errors and write the correction, explaining what is wrong each time.

With anger prickling eyes, Jed darted out of the room. Slamming the back door behind him, he sprints down the short garden path, through the gate and out on to the hillside.

It was a good couple of minutes before he slowed down. By this time, she was deep into the dense tangle of ferns that covered the Beacons, following one of the many narrow sheep trails that pushed through the undergrowth. Although shoulder-height to an average grown-up, the ferns were taller than him, so Jed knew he was well-hidden best of all, very few people ever ventured far from the paths and tracks that led hikers around these popular, picturesque hills, so he knows that he would be blissfully alone.

By the time he had reached his secret den in small, grassy clearing, his breathing had calmed down to a normal rate and his heart had stopped thumping against his ribs. I dropped to my knees and crawled into the rough shelter he had built the previous week out of of sturdy branches, interwoven with twiggy twigs.

Consider these editing errors:

- words that are missing
- words that have been repeated
- sentences that are too long or are unclear
- the incorrect choice of simple words
- the inconsistent use of tense or perspective (person)

1. _____

Explanation: _____

2. _____

Explanation: _____

3. _____

Explanation: _____

4. _____

Explanation: _____

5. _____

Explanation: _____

6. _____

Explanation: _____

7. _____

Explanation: _____

8. _____

Explanation: _____

9. _____

Explanation: _____

10. _____

Explanation: _____

Editing challenge – day six

This piece of text needs editing **for meaning**. Underline ten errors and write the correction, explaining what is wrong each time.

That’s why the dockside is my favourite patch. There are always plenty of shadows and dark corners in which you can lurk unseen, waiting, watching. Usually, I can get all I want from the rich pickings just lying around.

Sometimes he have to cut into a sack or work my way into crate, but, as often as not, I don’t have to to break in to anything.

When I am younger and had a taste for the finer things in life, I used to sneak on board the ships when they were moored on the dockside in those days, I was much agile, and perhaps more daring, but certainly a lot less wise. You see, I’ve always been a good climber, so I would scurry up the ropes that secured the boats to the quay. If I could find his way to the hold, then it would feel like I’d hit the jackpot. The trouble was, I usually discovered that the stash was jealously guarded by the ones who live on board. I got into some terrible scraps and, once or, was lucky to escape with my life. So now I tend to stay land-side where there’s less choose, but it’s much safer.

Consider these editing errors:

- words that are missing
- words that have been repeated
- sentences that are too long or are unclear
- the incorrect choice of simple words
- the inconsistent use of tense or perspective (person)

1. _____

Explanation: _____

2. _____

Explanation: _____

3. _____

Explanation: _____

4. _____

Explanation: _____

5. _____

Explanation: _____

6. _____

Explanation: _____

7. _____

Explanation: _____

8. _____

Explanation: _____

9. _____

Explanation: _____

10. _____

Explanation: _____

Editing challenge – day seven

This piece of text needs editing **for meaning**. Underline ten errors and write the correction, explaining what is wrong each time.

Wherever you go in the world, apart from the polar regions and a few lonely islands, I will find bats. Yet, considering how widespread they are, these fascinating creatures are remarkably unfamiliar to many people. Maybe it's their association with spooky stories, or maybe it's simply the fact that most of them only appeared at night that gives them mysterious reputation.

Food

From fruit to fish and from bugs too blood, different bats favour a wide variety of foods. More than two thirds of all bat species eat insects. Often, he hunt them in mid-air by using echo-location, which means they make high-pitched noises and listen for the echo to pinpoint their prey the largest bats, which are sometimes called flying foxes, feed on fruit – ripping them off of trees and taking them back to their roosts. There, they hung upside down from branches, sucking out the juice and spitting out the pips. Some bats suck nectar from flowers; others catch frogs and even fish even fish. Perhaps the most notorious are vampire bats, which suck blood from large mammals as cattle.

Consider these editing errors:

- words that are missing
- words that are spoken English
- sentences that are too long or are unclear
- the incorrect choice of simple words
- the inconsistent use of tense or perspective (person)

1. _____

Explanation: _____

2. _____

Explanation: _____

3. _____

Explanation: _____

4. _____

Explanation: _____

5. _____

Explanation: _____

6. _____

Explanation: _____

7. _____

Explanation: _____

8. _____

Explanation: _____

9. _____

Explanation: _____

10. _____

Explanation: _____

Editing challenge – day eight

This piece of narrative text needs editing **for impact**. The five highlighted parts of the text lack impact in a variety of ways. How can you improve them to create an effect for the reader? What image do you want them to see as they read? What will make the narrative exciting and engaging? Write your change (maybe one word, a phrase or a sentence) and explain the impact it will have.

“Come on! Look, I’ve found something!” **said** Jamie, as he **got** off his new BMX bike. The two boys were crouched over an old, tattered brown suitcase placed in between two spiky tree trunks. **They** wrenched open the case – opening their eyes to an amount of money that they would never have dreamed of. At that very moment, Jamie saw pound signs dance in front of his eyes. **After Jamie took in what was inside**, he noticed a black shotgun **with a black leather handle**.

Consider the use of the following:

- precise language choices
- powerful verbs for effect
- varying sentence structure
- figurative language (metaphor, simile, personification)

1. _____

Impact on the reader: _____

2. _____

Impact on the reader: _____

3. _____

Impact on the reader: _____

4. _____

Impact on the reader: _____

5. _____

Impact on the reader: _____

Editing challenge – day nine

This piece of formal writing needs editing **for impact**. The five highlighted parts of the text lack impact in a variety of ways. How can you improve them to ensure they suit the purpose and the audience for a letter of complaint? Write your change (maybe one word, a phrase or a sentence) and explain the impact it will have. You can adapt, extend or change any sentences or parts of sentences that you choose to improve the impact of the writing.

On Saturday 14th July, I came into your **shop** to **get** a combined laptop/tablet to help with my school work when I move up to high school next year. **I had saved up for a year.** I was both excited and anxious. I couldn't wait to get what I had been working towards, but equally I wanted to make sure I **got what I wanted**. That is why I was determined to talk through my requirements thoroughly with one of your sales team.

Although I can't remember his name – the receipt just says 'Tech Team 14' – I can tell you that the person who served me was **a man**.

Consider the use of the following:

- formal language to match the tone of the writing
- precise language choices for information
- expanded noun phrases to add detail
- extending, varying or combining sentences which are too short

1. _____

Impact on the reader: _____

2. _____

Impact on the reader: _____

3. _____

Impact on the reader: _____

4. _____

Impact on the reader: _____

5. _____

Impact on the reader: _____

Editing challenge – day ten

This piece of non-fiction writing needs editing **for impact**. The five highlighted parts of the text lack impact in a variety of ways. How can you improve them to ensure they suit the purpose and the audience for a leaflet for Icelandic holidays? Write your change (maybe one word, a phrase or a sentence) and explain the impact it will have. You can adapt, extend or change any sentences or parts of sentences that you choose to improve the impact of the writing.

Iceland is a land of surprises. A land of experiences. A land of adventure. **It is located in the North Atlantic Ocean. It is located just outside the Arctic Circle.** It boasts a dramatic landscape **with** active volcanos and fringed with rugged coastlines. For those who love the outdoors, it's got everything from spectacular views to specialist sports. Best of all, with **lots of** daylight in the summer, you can really **do lots of things!**

Iceland is a force of nature. Shaped by hundreds of volcanos, including around 30 that are still active, it has **glaciers, waterfalls, beaches of black sand and fields of living lava.** No wonder it has been called the land of fire and ice!

Consider the use of the following:

- precise language choices for information
- expanded noun phrases or adverbials to add detail
- extending, varying or combining sentences which are too short or repetitive

1. _____

Impact on the reader: _____

2. _____

Impact on the reader: _____

3. _____

Impact on the reader: _____

4. _____

Impact on the reader: _____

5. _____

Impact on the reader: _____

Using ratio language

- 1 Complete the sentences.



For every 3 sheep there are cows.

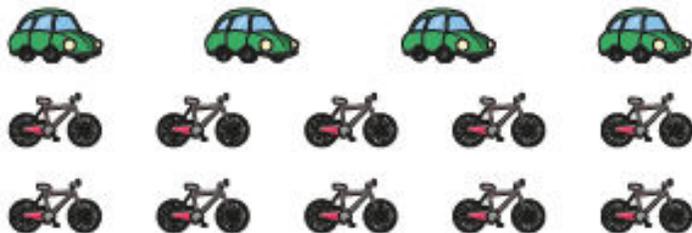
For every 2 cows there is sheep.

- 2 Circle groups to match the statements.

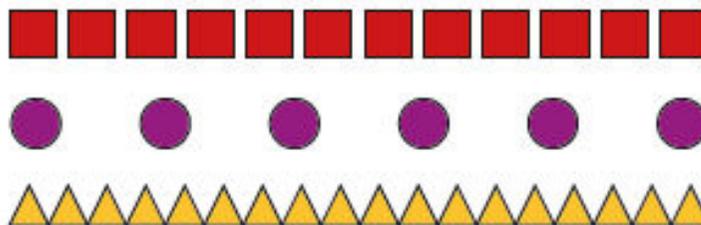
a) For every 1 football there are 3 tennis balls.



b) For every 2 cars there are 5 bicycles.



- 3 Here are some shapes.



Complete the sentences.

For every 6 squares there are circles.

For every 6 squares there are triangles.

For every 1 square there is a circle.

- 4 a) Make a tower of cubes that has 3 green cubes for every 1 red cube.

b) Compare your tower to a partner's tower.

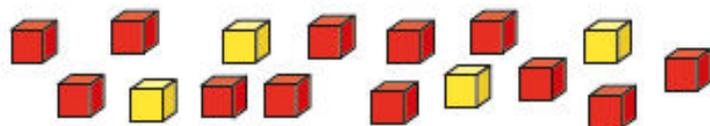
What is the same and what is different about your tower?

- 5 For every 2 pencils there are 3 rulers.

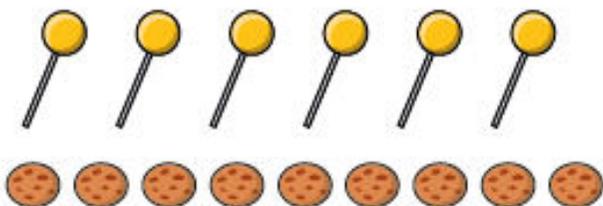
Draw a picture to show this.



- 6 Write three different 'For every ...' sentences for the cubes.



- 7 Teddy has 6 lollipops and 9 cookies.



For every 3 lollipops
there are 2 cookies.

Annie



I don't agree.

Teddy

a) What mistake has Annie made?

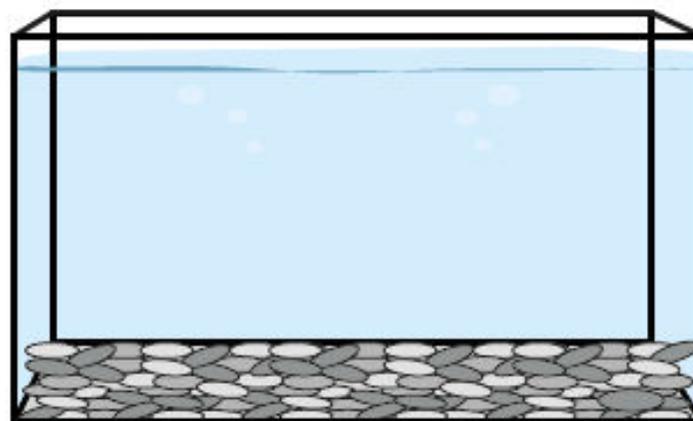
b) Write a sentence to match the picture.

- 8 Filip has some fish.

For every 3 red fish he has 1 goldfish.

Tommy counts at least 20 fish in the tank.

Draw the fish in the tank.



- 9 In Class 6, for every 2 girls there is 1 boy.

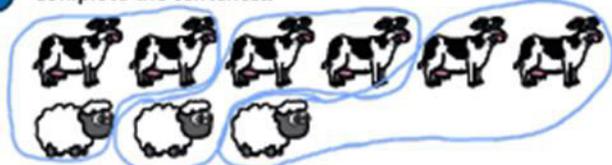
There are 12 girls in the class.

How many boys are in the class?

You can draw the children to help you.

Using ratio language

- 1 Complete the sentences.

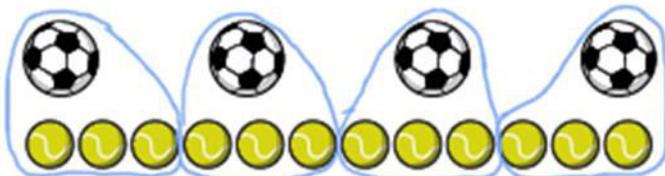


For every 3 sheep there are cows.

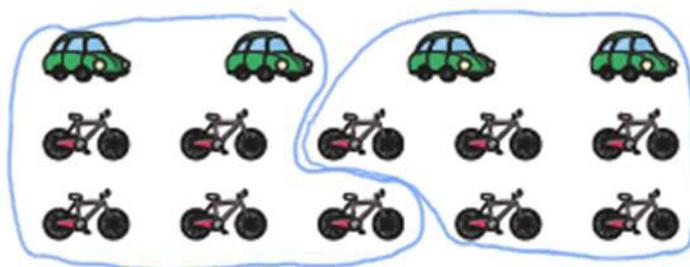
For every 2 cows there is sheep.

- 2 Circle groups to match the statements.

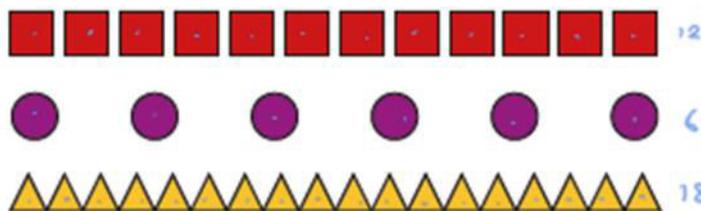
a) For every 1 football there are 3 tennis balls.



b) For every 2 cars there are 5 bicycles.



- 3 Here are some shapes.



Complete the sentences.

For every 6 squares there are circles.

For every 6 squares there are triangles.

For every 1 square there is a circle.

- 4 a) Make a tower of cubes that has 3 green cubes for every 1 red cube.

b) Compare your tower to a partner's tower.

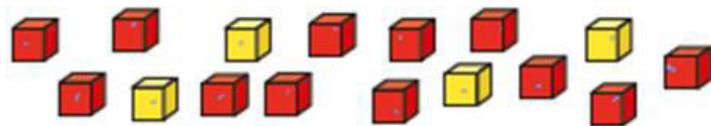
What is the same and what is different about your tower?

- 5 For every 2 pencils there are 3 rulers.

Draw a picture to show this.

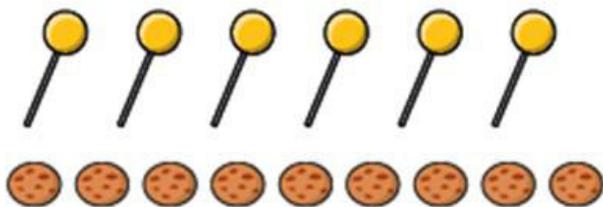


- 6 Write three different 'For every ...' sentences for the cubes.



For every 12 red cubes there are 2 yellow cubes.
 For every 6 red cubes there are 2 yellow cubes.
 For every 3 red cubes there are 1 yellow cubes.

- 7 Teddy has 6 lollipops and 9 cookies.



Annie

For every 3 lollipops there are 2 cookies.

I don't agree.



Teddy

- a) What mistake has Annie made?
 b) Write a sentence to match the picture.

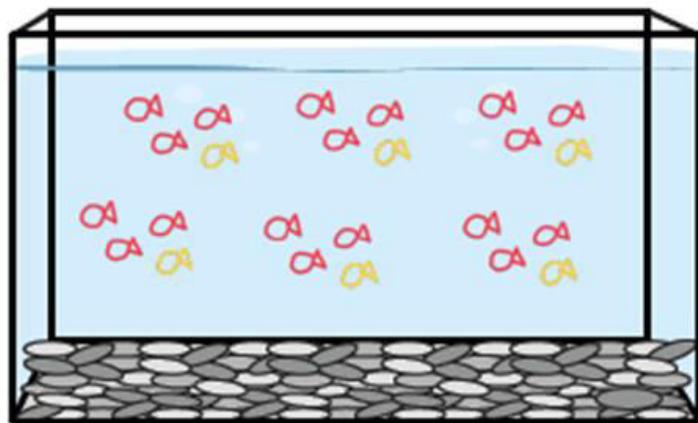
For every 2 lollipops there are 3 cookies.

- 8 Filip has some fish.

For every 3 red fish he has 1 goldfish.

Tommy counts at least 20 fish in the tank.

Draw the fish in the tank.

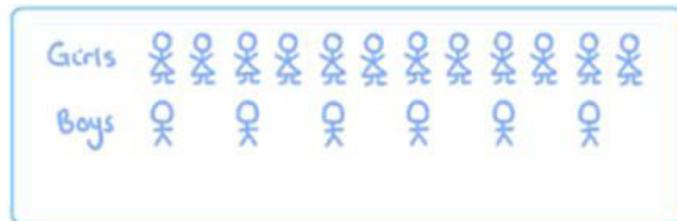


- 9 In Class 6, for every 2 girls there is 1 boy.

There are 12 girls in the class.

How many boys are in the class?

You can draw the children to help you.



6

Ratio and fractions

1 Here are some counters.

Complete the sentences to describe the counters.

a) There are counters altogether.

b) There are white counters.

c) There are black counters.

d) 3 out of the 8 counters are _____

e) out of the 8 counters are white.



2 Here are some animals.



Complete the sentences.

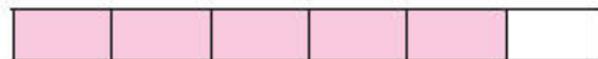
For every cows there are sheep.

The ratio of cows to sheep is to

of the animals are cows.

of the animals are sheep.

3 Part of the bar has been shaded.



a) What fraction of the bar is shaded?

b) What fraction of the bar is not shaded?

c) Write the ratio of shaded to non-shaded parts. to

d) Write the ratio of non-shaded to shaded parts. to

4 Here are some shapes.



a) What fraction of the shapes are circles?

b) What fraction of the shapes are stars?

c) What is the ratio of stars to circles? to

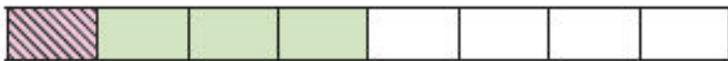
d) What is the ratio of circles to stars? to

Can you find a different answer to each of these questions?

Compare with a partner.



- 5 The bar model shows the ratio 1 to 3 to 4



Talk to a partner about how it shows this.

- a) What fraction of the bar is striped?
- b) What fraction of the bar is fully shaded?
- c) What fraction of the bar is blank?

6



Jack

The fraction of brown cubes is $\frac{2}{3}$ because the ratio of brown to yellow is 2 to 3

Rosie

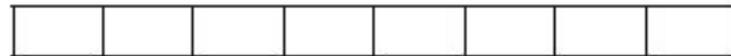
The fraction of brown cubes is $\frac{2}{5}$



Who is correct? _____

Explain your answer.

- 7 Scott draws a bar and divides it into 8 equal parts.



He shades 25% of the bar.

What is the ratio of shaded to non-shaded parts? to

- 8 A pencil case contains felt tips and pencils.

$\frac{3}{8}$ of the contents are pencils.

What is the ratio of felt tips to pencils? to

- 9 Ron has some limes and strawberries.

The ratio of strawberries to limes is 5 to 1

- a) How do you know he has more strawberries than limes?

- b) What fraction of the fruits are strawberries?

- c) What fraction of the fruits are limes?

Ratio and fractions

1 Here are some counters.

Complete the sentences to describe the counters.

a) There are counters altogether.

b) There are white counters.

c) There are black counters.

d) 3 out of the 8 counters are black.

e) out of the 8 counters are white.



2 Here are some animals.



Complete the sentences.

For every cows there are sheep.

The ratio of cows to sheep is to .

of the animals are cows.

of the animals are sheep.

3 Part of the bar has been shaded.



a) What fraction of the bar is shaded?

b) What fraction of the bar is not shaded?

c) Write the ratio of shaded to non-shaded parts.

to

d) Write the ratio of non-shaded to shaded parts.

to

4 Here are some shapes.



a) What fraction of the shapes are circles?

b) What fraction of the shapes are stars?

c) What is the ratio of stars to circles?

to

d) What is the ratio of circles to stars?

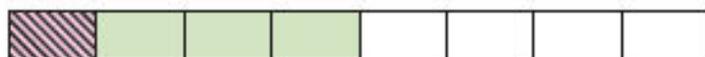
to

Can you find a different answer to each of these questions?

Compare with a partner.



- 5 The bar model shows the ratio 1 to 3 to 4



Talk to a partner about how it shows this.

- a) What fraction of the bar is striped?
 b) What fraction of the bar is fully shaded?
 c) What fraction of the bar is blank?

$$\frac{1}{8}$$

$$\frac{4}{8}$$

$$\frac{3}{8}$$

6



Jack

The fraction of brown cubes is $\frac{2}{3}$ because the ratio of brown to yellow is 2 to 3

Rosie



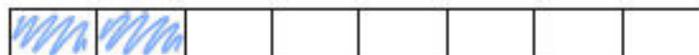
The fraction of brown cubes is $\frac{2}{5}$

Who is correct? Rosie

Explain your answer.

2 out of 5 cubes are brown.

- 7 Scott draws a bar and divides it into 8 equal parts.



He shades 25% of the bar.

What is the ratio of shaded to non-shaded parts? $\boxed{2}$ to $\boxed{6}$

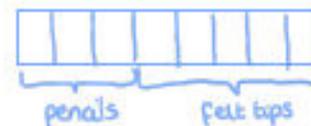
(or 1 to 3)

- 8 A pencil case contains felt tips and pencils.

$\frac{3}{8}$ of the contents are pencils.

What is the ratio of felt tips to pencils?

$\boxed{5}$ to $\boxed{3}$



- 9 Ron has some limes and strawberries.

The ratio of strawberries to limes is 5 to 1

- a) How do you know he has more strawberries than limes?

For every 1 lime there are 5 strawberries.

- b) What fraction of the fruits are strawberries?

$$\frac{5}{6}$$

- c) What fraction of the fruits are limes?

$$\frac{1}{6}$$

Introducing the ratio symbol

- 1 The ratios show shaded parts to non-shaded parts.
Match the ratios, statements and bar models.

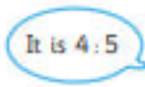
2:3	five to two	
5:2	three to two	
2:5	two to three	
3:2	two to five	

- 2



The ratio of purple
to yellow is 5:4

Mo



It is 4:5

Alex

Who is correct? _____

Explain your answer.

- 3 Dani has some counters, cubes and marbles.
Complete the sentences.

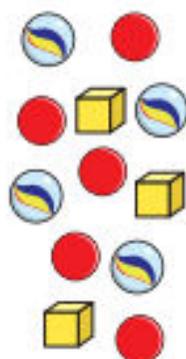
The ratio of counters to marbles is :

The ratio of marbles to cubes is :

The ratio of cubes to counters is :

The ratio of counters to cubes is :

The ratio of counters to cubes to marbles is : :



- 4 Brett has drawn some triangles and squares.

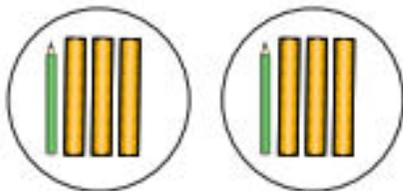
The ratio of triangles to squares is 1:3

- a) Are there more triangles or more squares? _____
Explain how you know.

- b) Brett has drawn more than 10 shapes.
Draw what Brett might have drawn.

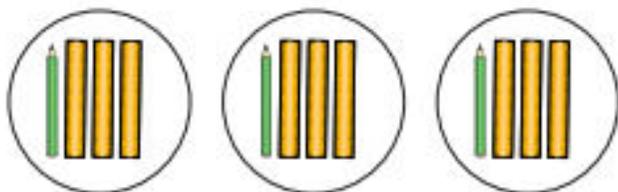


- 5 Here are some rulers and some pencils.



- a) What is the ratio of pencils to rulers?
 b) Here are some more rulers and pencils.

:



Ron

The ratio of pencils to rulers is the same as in part a).

Ron is wrong because there are more pencils and more rulers.



Dora

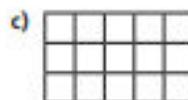
Who is correct? _____

Explain your answer.

- 6 The ratio of horses to chickens in a field is 2:5
 Here are the horses. Draw the chickens.



- 7 Shade squares so that the ratio of shaded to non-shaded squares is 1:4



- 8 A box contains dark, white and milk chocolates.

$\frac{3}{8}$ of the box are dark chocolates.

$\frac{1}{2}$ of the box are milk chocolates.

The rest are white chocolates.

What does each ratio represent?

- a) 1:3

- b) 4:1

- c) 3:5

Introducing the ratio symbol

- 1 The ratios show shaded parts to non-shaded parts. Match the ratios, statements and bar models.

2:3	five to two	
5:2	three to two	
2:5	two to three	
3:2	two to five	

- 2



The ratio of purple to yellow is 5:4

Mo



It is 4:5

Alex

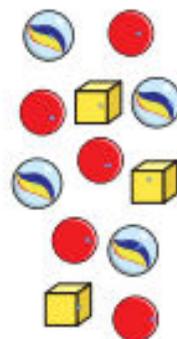
Who is correct? Mo

Explain your answer.

For every 5 purple cubes there are 4 yellow cubes.

- 3 Dani has some counters, cubes and marbles. Complete the sentences.

4 marbles
5 counters
3 cubes



The ratio of counters to marbles is $5:4$

The ratio of marbles to cubes is $4:3$

The ratio of cubes to counters is $3:5$

The ratio of counters to cubes is $5:3$

The ratio of counters to cubes to marbles is $5:3:4$

- 4 Brett has drawn some triangles and squares.

The ratio of triangles to squares is 1:3

a) Are there more triangles or more squares? squares

Explain how you know.

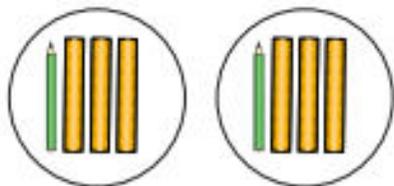
For every 1 triangle there are 3 squares.

b) Brett has drawn more than 10 shapes.

Draw what Brett might have drawn.



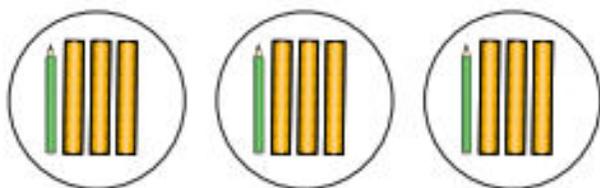
- 5 Here are some rulers and some pencils.



a) What is the ratio of pencils to rulers?

1 : 3

b) Here are some more rulers and pencils.



Ron

The ratio of pencils to rulers is the same as in part a).



Dora

Ron is wrong because there are more pencils and more rulers.

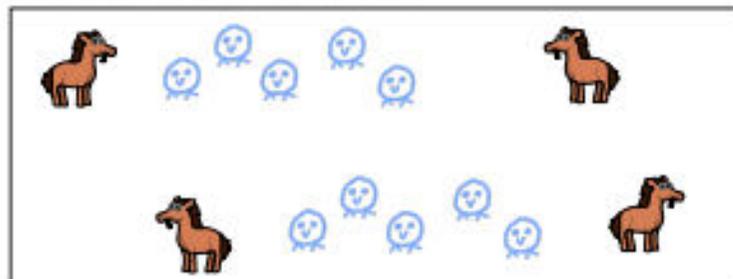
Who is correct? Ron

Explain your answer.

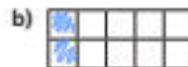
For every 1 pencil there are still 3 rulers.

- 6 The ratio of horses to chickens in a field is 2 : 5

Here are the horses. Draw the chickens.



- 7 Shade squares so that the ratio of shaded to non-shaded squares is 1 : 4



- 8 A box contains dark, white and milk chocolates.

$\frac{3}{8}$ of the box are dark chocolates.

$\frac{1}{2}$ of the box are milk chocolates.

The rest are white chocolates.



What does each ratio represent?

a) 1 : 3

white : dark

b) 4 : 1

milk : white

c) 3 : 5

dark : milk or white

- 6 a) Huan is making a drink by mixing 1 part juice with 5 parts water.
Complete the table to show the amounts he would need to use.

Juice	Water
1 litre	5 litres
2 litres	10 litres
4 litres	20 litres
100 ml	500 ml
200 ml	1 litre
300 ml	1.5 litres
6 litres	30 litres
150 ml	750 ml

1L = 1000 ml

- b) Huan makes 1 litre 500 ml of drink in total.
How much juice and water does he need to use?

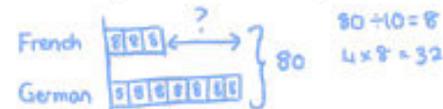
Juice

water

- 7 A group of students study French or German in the ratio 3:7
- a) Which subject has the most students? German
- b) Draw a diagram to represent this.



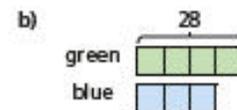
- c) There are 80 students in total.
How many more students study German than French?



- 8 Describe a situation for each bar model.



The ratio of green to blue sweets is 4:3. There are 28 sweets in total.



The ratio of green to blue sweets is 4:3. There are 28 green sweets.



The ratio of green to blue sweets is 4:3. There are 28 more green sweets than blue sweets.

Compare answers with a partner.

What is the same and what is different?

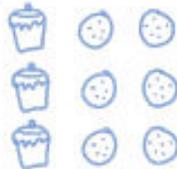


Calculating ratio

- 1 Eva is baking cakes and cookies.
For every 1 cake, she will bake 2 cookies.

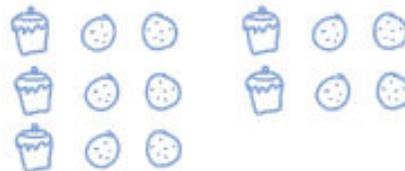


- a) If Eva bakes 3 cakes, how many cookies will she bake?



6

- b) If Eva bakes 10 cookies, how many cakes will she bake?



5

- 2 The ratio of red to yellow counters is 2:3.
There are 20 counters in total.
How many counters of each colour are there?
You can colour the counters to help you.



yellow red

- 3 Tom has 5 green cubes for every 3 yellow cubes.
He has 16 cubes in total.
Draw a diagram to represent this.

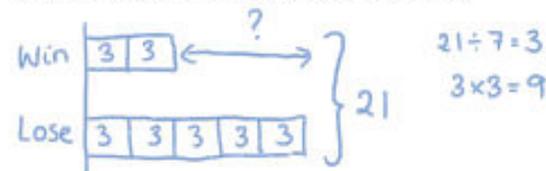


- 4 Esther is building a tower of cubes.
The ratio of red to yellow cubes is 3:1.
The tower has 6 yellow cubes. How many red cubes are there?



18

- 5 Nijah plays 21 games of chess.
For every 2 games she wins, she loses 5 games.
How many more games does she lose than win?



9

- 6 a) Huan is making a drink by mixing 1 part juice with 5 parts water.
Complete the table to show the amounts he would need to use.

Juice	Water
1 litre	5 litres
2 litres	
4 litres	
100 ml	
200 ml	
300 ml	
	30 litres
	750 ml

- b) Huan makes 1 litre 500 ml of drink in total.
How much juice and water does he need to use?

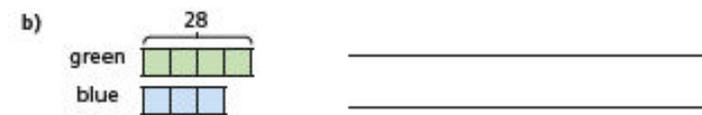
juice

water

- 7 A group of students study French or German in the ratio 3:7
- a) Which subject has the most students? _____
- b) Draw a diagram to represent this.

- c) There are 80 students in total.
How many more students study German than French?

- 8 Describe a situation for each bar model.



Compare answers with a partner.

What is the same and what is different?



Calculating ratio

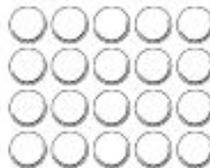
- 1 Eva is baking cakes and cookies.
For every 1 cake, she will bake 2 cookies.



a) If Eva bakes 3 cakes, how many cookies will she bake?

b) If Eva bakes 10 cookies, how many cakes will she bake?

- 2 The ratio of red to yellow counters is 2 : 3
There are 20 counters in total.
How many counters of each colour are there?
You can colour the counters to help you.



yellow

red



- 3 Tom has 5 green cubes for every 3 yellow cubes.
He has 16 cubes in total.
Draw a diagram to represent this.

- 4 Esther is building a tower of cubes.
The ratio of red to yellow cubes is 3 : 1
The tower has 6 yellow cubes. How many red cubes are there?

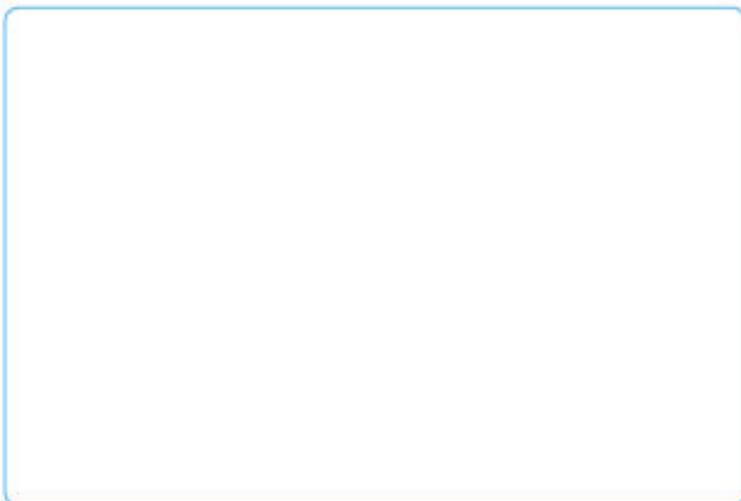
- 5 Nijah plays 21 games of chess.
For every 2 games she wins, she loses 5 games.
How many more games does she lose than win?



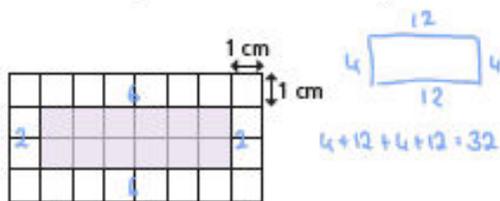
- 4 Here is a rectangle.



- a) Measure the side lengths of the rectangle and label them on the diagram.
 b) Enlarge the rectangle by a scale factor of 3 and label the side lengths.



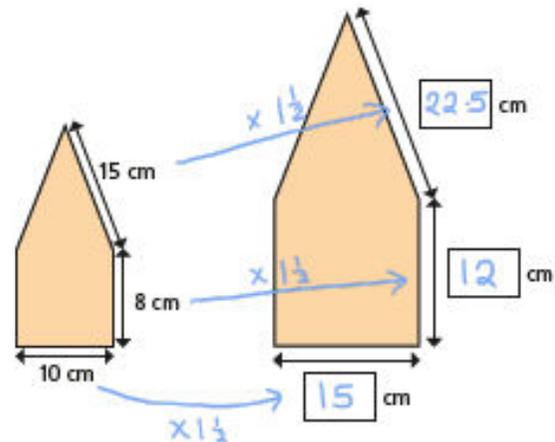
- 5 The sides of the rectangle are increased by a scale factor of 2.
 What is the perimeter of the new shape?



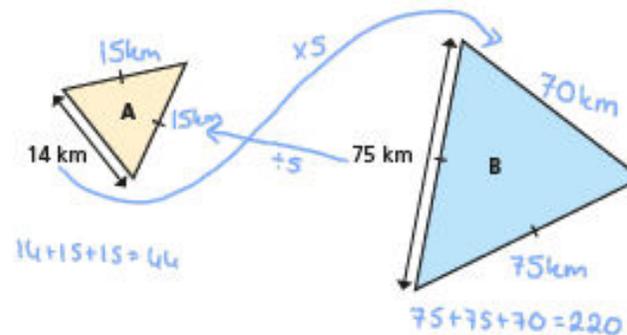
32 cm



- 6 The shape has been enlarged by a scale factor of $1\frac{1}{2}$.
 Fill in the dimensions of the new shape.



- 7 Triangle A has been enlarged by a scale factor of 5 to make triangle B.
 Find the perimeter of each triangle.

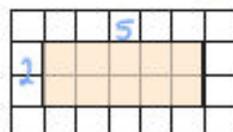


perimeter of A = **44 km** perimeter of B = **220 km**

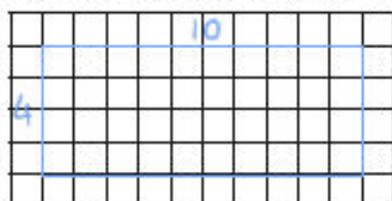


Using scale factors

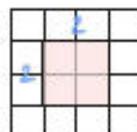
- 1 a) Here is a rectangle.



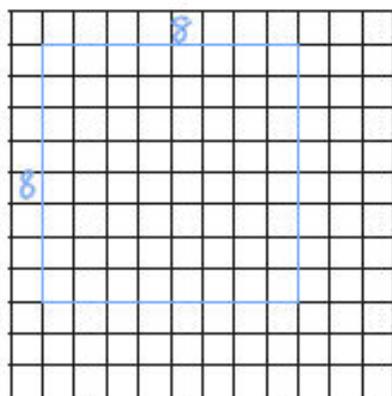
Draw another rectangle where each side is twice as big.



- b) Here is a square.



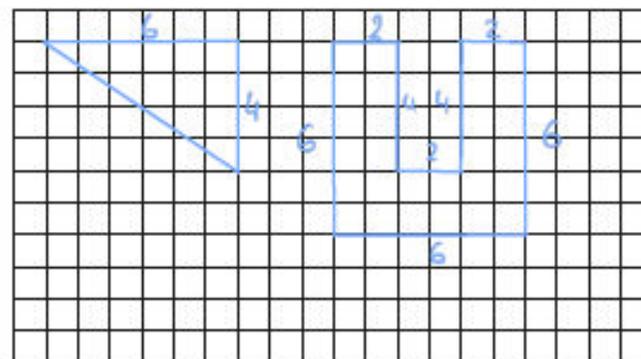
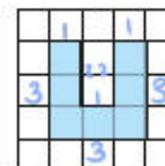
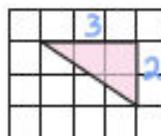
Draw another square where each side is 4 times as big.



- 2 a) Explain what it means for a shape to be enlarged by a scale factor of 2

All of the side lengths are multiplied by 2

- b) Enlarge the shapes by a scale factor of 2



- 3 Complete the sentence.

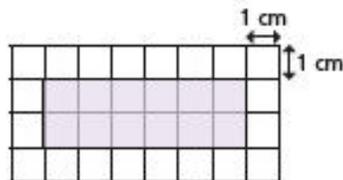
A shape in which each side has tripled in size has been enlarged by a scale factor of 3

- 4 Here is a rectangle.



- a) Measure the side lengths of the rectangle and label them on the diagram.
 b) Enlarge the rectangle by a scale factor of 3 and label the side lengths.

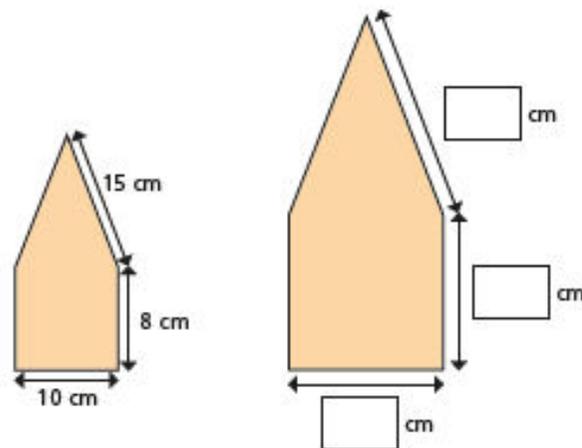
- 5 The sides of the rectangle are increased by a scale factor of 2.
 What is the perimeter of the new shape?



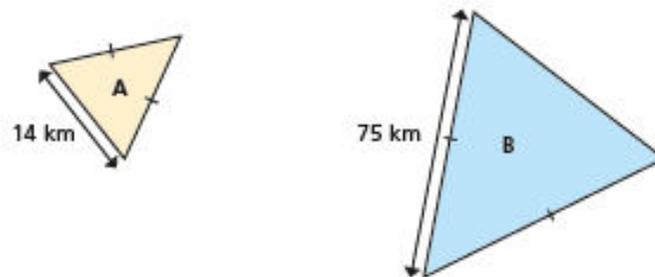
cm



- 6 The shape has been enlarged by a scale factor of $1\frac{1}{2}$.
 Fill in the dimensions of the new shape.



- 7 Triangle A has been enlarged by a scale factor of 5 to make triangle B.
 Find the perimeter of each triangle.

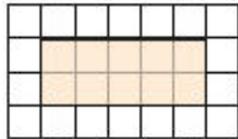


perimeter of A = perimeter of B =

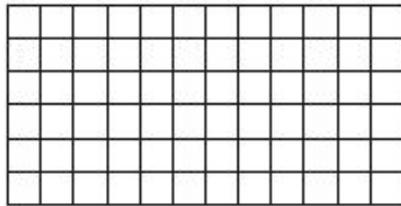


Using scale factors

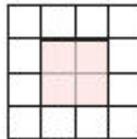
- 1 a) Here is a rectangle.



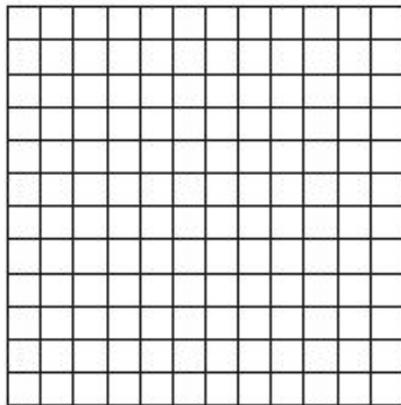
Draw another rectangle where each side is twice as big.



- b) Here is a square.

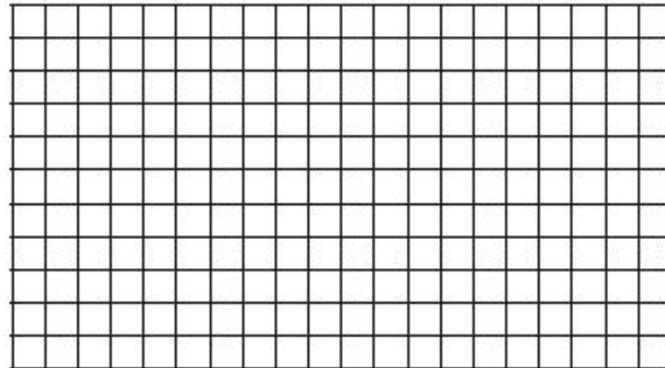
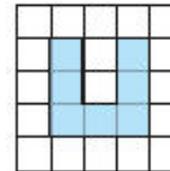
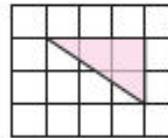


Draw another square where each side is 4 times as big.



- 2 a) Explain what it means for a shape to be enlarged by a scale factor of 2

- b) Enlarge the shapes by a scale factor of 2



- 3 Complete the sentence.

A shape in which each side has tripled in size has been enlarged by a scale factor of



Holiday Challenge: Reading '10 Challenges for 10 Days'

This booklet is designed to keep your brains 'ticking over' during the holidays. Just a few short activities will mean that you return to school ready and raring to go! Try to really impress your teacher by completing them all, one per day. Circle any questions that you'd like some more help with when term starts again.

Commissioned by The PiXL Club Ltd.

This resource is strictly for the use of member schools for as long as they remain members of The PiXL Club. It may not be copied, sold nor transferred to a third party or used by the school after membership ceases. Until such time it may be freely used within the member school.
All opinions and contributions are those of the authors. The contents of this resource are not connected with nor endorsed by any other company, organisation or institution.

© Copyright The PiXL Club Limited

Reading – Day 1

Hard-boiled changes

Some changes are reversible: the material can return to its original state. Some, however, are irreversible and no matter what happens to it, the substance cannot go back to how it was. These different sorts of changes can be seen time and time again in the kitchen. Melting chocolate, for instance, is a reversible change because, when the heat is removed, it will return to a solid state. That does not mean it regains its original shape; a suitable mould is required for that.

A good example of an irreversible change can be observed when an egg is cooked. Before heating, the protein molecules in albumen (egg white) are free to move around within the water that constitutes ninety percent of it. That's because they are curled up and not attached to each other. Cooking causes these individual molecules to unfurl, enabling them to form firm bonds with others. As a result, the material stiffens and becomes the opaque, white matter we are all familiar with. This process usually completes at around sixty-five degrees centigrade. The yellow yolk which, unlike albumen, contains fat and carbohydrates as well as protein, will follow a similar pattern when heated. So, how do you think it is possible to boil eggs that have a firm albumen but a runny yolk?

Day 1

1. '... the material can return to its original state.' Explain the meaning of the word **original** in this sentence.

_____ 1 mark

2. Which words most closely match the meaning of **constitutes**? Tick **one**.

warms up	<input type="checkbox"/>	dries up	<input type="checkbox"/>	
makes up	<input type="checkbox"/>	mixes up	<input type="checkbox"/>	1 mark

3. Where in the home can reversible and irreversible changes be seen 'time and time again'?

_____ 1 mark

4. Which word or phrase most closely matches the meaning of the word **opaque**? Circle **one**.

not transparent not solid yellowy runny

5. At what temperature does albumen usually finish changing?

_____ 1 mark

Reading – Day 2

Hard-boiled changes

Some changes are reversible: the material can return to its original state. Some, however, are irreversible and no matter what happens to it, the substance cannot go back to how it was. These different sorts of changes can be seen time and time again in the kitchen. Melting chocolate, for instance, is a reversible change because, when the heat is removed, it will return to a solid state. That does not mean it regains its original shape; a suitable mould is required for that.

A good example of an irreversible change can be observed when an egg is cooked. Before heating, the protein molecules in albumen (egg white) are free to move around within the water that constitutes ninety percent of it. That's because they are curled up and not attached to each other. Cooking causes these individual molecules to unfurl, enabling them to form firm bonds with others. As a result, the material stiffens and becomes the opaque, white matter we are all familiar with. This process usually completes at around sixty-five degrees centigrade. The yellow yolk which, unlike albumen, contains fat and carbohydrates as well as protein, will follow a similar pattern when heated. So, how do you think it is possible to boil eggs that have a firm albumen but a runny yolk?

Day 2

1. In paragraph two, which word is used to describe the way the molecules change from being curled up to becoming straighter?

_____ 1 mark

2. What is albumen?

_____ 1 mark

3. What do the protein molecules do that makes the albumen become stiff?

_____ 2 marks

4. Name two differences between albumen and yolk.

_____ 2 marks

5. Using information from the whole text, tick one box in each row to show whether each statement is true or false.

	True	False
You only see irreversible changes in the kitchen.		
Heat makes the protein molecules straighten up.		
Albumen contains protein, fat and carbohydrates.		

2 marks

Reading – Day 3

Hadrian’s Wall

Hadrian’s Wall is one of the most striking legacies of Roman life in Britain. Even though construction started in 122C.E., large sections of it can still be seen nearly 1900 years later. Some people believe that it was built to form a barrier between England and Scotland, but they are mistaken. For a start, Scotland did not exist back then. Anyway, its entire length is located firmly within what we now call England and it has never marked the border between these two countries.

No, the real motive behind the building of the wall is not fully clear. Historical records suggest that the official reason was to protect the Roman Empire from aggressive ‘barbarians’ from the north. Indeed, there is some evidence that the emperor Hadrian felt he was following a ‘divine instruction’, although it is not clear which of the Roman gods inspired him. The reality might be rather different, however. After all, walls rarely offer an effective barrier to invasion. It might have been a simple expression of the power of Rome. It might even have been partly intended to improve tax collection. If so, it could be that money was a powerful motive, but the country’s rulers didn’t like to admit as much out loud. How little things have changed!

Day 3

1. In what year did the Romans start building Hadrian’s Wall?

_____ 1 mark

2. Which word or phrase most closely matches the meaning of **legacies**? Tick **one**.

historical books ruins
 lasting examples soldiers 1 mark

3. Some people believe the wall was built to form a barrier between which **two** countries?

_____ 1 mark

4. **Find** and **copy** the adjective that describes the ‘**barbarians**’.

_____ 1 mark

5. Which word or phrase most closely matches the meaning of ‘**motive**’? Circle **one**.

excuse reason money countryside 1 mark

Reading – Day 4

Hadrian's Wall

Hadrian's Wall is one of the most striking legacies of Roman life in Britain. Even though construction started in 122C.E., large sections of it can still be seen nearly 1900 years later. Some people believe that it was built to form a barrier between England and Scotland, but they are mistaken. For a start, Scotland did not exist back then. Anyway, its entire length is located firmly within what we now call England and it has never marked the border between these two countries.

No, the real motive behind the building of the wall is not fully clear. Historical records suggest that the official reason was to protect the Roman Empire from aggressive 'barbarians' from the north. Indeed, there is some evidence that the emperor Hadrian felt he was following a 'divine instruction', although it is not clear which of the Roman gods inspired him. The reality might be rather different, however. After all, walls rarely offer an effective barrier to invasion. It might have been a simple expression of the power of Rome. It might even have been partly intended to improve tax collection. If so, it could be that money was a powerful motive, but the country's rulers didn't like to admit as much out loud. How little things have changed!

Day 4

1. Explain what '**divine instruction**' means? Use evidence from the text to support your answer.

_____ *2 marks*

2. **Find** and **copy** the phrase that suggests that the wall might not have been a successful way of protecting the Romans.

_____ *1 mark*

3. 'It might have been a simple expression of the power of Rome.' What do you think '**expression of power**' means?

_____ *1 mark*

4. Write down **two** real reasons, suggested in the article, as to why the wall was built.

a) _____

b) _____ *2 marks*

5. What phrase suggests that the Romans were not the only people who avoided admitting '**out loud**' that they wanted to collect taxes?

_____ *1 mark*

Reading – Day 5

Rock, Paper, Scissors ... Water

No doubt, you are familiar with the game Rock, Paper, Scissors. Rock blunts Scissors, Scissors cut Paper and Paper wraps up the Rock, and so on. But what would happen if you added another element – water? You might think of water as something beneficial – essential for life. You might enjoy swimming, paddling in the surf, or relaxing in a soothing, warm bath. But water can also have a fearsomely destructive power, as any visit to Britain’s wonderfully varied coastline will prove.

Whether it’s the craggy cliffs of the south west or the wide, marshy estuaries of East Anglia, the earth-moving effects of the sea are all too apparent. The daily battering of the shore means that our coastline is constantly changing, thanks to erosion. Waves crash onto the land, picking up stones and hurling them at the base of the cliffs. Over time, this wears away the rock in a process called undercutting. The cliff face above becomes unstable and a section sheers off and tumbles onto the beach below. In short, solid stone is defeated by a mere liquid. So next time you play Rock, Paper, Scissors, remember that water would trump them all, eventually – it might just make for a rather long game.

Day 5

1. **Find and copy** the word that tells you how Rock beats Scissors.

_____ 1 mark

2. Name **two** of the benefits of water given in this article.

a) _____

b) _____ 2 marks

3. How does the article describe the power of water? **Find and copy both** words.

_____ 1 mark

4. Which word is closest in meaning to **apparent**?

violent risky

solid obvious

5. What happens during **undercutting**?

_____ 1 mark

Reading – Day 7

The Raiders

Heavy skies, heavy heart. Edmund perched on the mossy bank, sullenly tossing pebbles into the stinking, grey-green mire of the estuary. Searching fingers of water snaked over the mudflats towards him. The tide was edging in, mimicking his rising anxiety. Soon he would have to return to the monastery to confront his fate. Somehow, he didn't think that the monks would show him the same mercy they expected from their god.

As he rose to leave, his eye was caught by something fluttering over the reed beds. Then there was another and another – multicoloured flags moving in smooth, ominous procession. Edmund stood transfixed as a dragon's head appeared at the bend in the river. Soon, the full horror was revealed: a long-ship was gliding silently upstream, propelled by well-trained oars that barely raised a ripple. It was not alone: three ... four ... five ... Edmund counted six in total – a formidable raiding party of warriors from the North. Now it really was time to return to the monastery. Fast.

Day 7

1. Find **two** ways in which the author suggests that Edmund is feeling troubled about something.

a) _____

b) _____ *1 mark*

2. Which word is closest in meaning to **mire**?

mud boat

misery clouds

3. In what way was the tide like his anxiety?

_____ *1 mark*

4. How do we know that Edmund is worried about going back to the monastery? Use evidence from the text to support your answer.

_____ *2 marks*

5. **Find and copy** the word that says what the monks '**expected from their god**'.

_____ *1 mark*

Reading – Day 8

The Raiders

Heavy skies, heavy heart. Edmund perched on the mossy bank, sullenly tossing pebbles into the stinking, grey-green mire of the estuary. Searching fingers of water snaked over the mudflats towards him. The tide was edging in, mimicking his rising anxiety. Soon he would have to return to the monastery to confront his fate. Somehow, he didn't think that the monks would show him the same mercy they expected from their god.

As he rose to leave, his eye was caught by something fluttering over the reed beds. Then there was another and another – multicoloured flags moving in smooth, ominous procession. Edmund stood transfixed as a dragon's head appeared at the bend in the river. Soon, the full horror was revealed: a long-ship was gliding silently upstream, propelled by well-trained oars that barely raised a ripple. It was not alone: three ... four ... five ... Edmund counted six in total – a formidable raiding party of warriors from the North. Now it really was time to return to the monastery. Fast.

Day 8

1. Which word is closest in meaning to **ominous**? Tick **one**.

tall	<input type="checkbox"/>	threatening	<input type="checkbox"/>
slow-moving	<input type="checkbox"/>	colourful	<input type="checkbox"/>

2. Was there a real dragon? How do you know?

_____ *2 marks*

3. What showed that the oars were '**well-trained**'?

_____ *1 mark*

4. What did Edmund think might happen that made him want to return to the monastery?

_____ *1 mark*

5. How do you think Edmund's mood changed from the beginning of the extract to the end? Explain your answer with evidence from the text.

_____ *3 marks*

Reading – Day 9

The Scurrier

Grey clouds drag themselves across the sky.
Drooping giants shuffle off their copper cloaks
And leave them crumpled at their feet.
The year is getting tired.

The scurrier gathers memories of summer -
Seeds, nuts -
And buries them beneath her bedchamber.
A straw nest is prepared
with crisp sheets of orange and brown.
Dreams are calling.

Six moons in a single sleep.
Streams stand still and silent.
A soft white blanket is gently lain,
Tucked in along the hedgerows,
Until, by morning's magic, the spell is broken.
Time to rise.

Day 9

1. **Find** and **copy** the word that describes how the clouds move across the sky.

_____ 1 mark

2. What do you think the '**drooping giants**' are?

_____ 1 mark

3. What is meant by '**copper cloaks**'?

_____ 1 mark

4. Which word best describes the theme of the first verse?

joy	<input type="checkbox"/>	waiting	<input type="checkbox"/>
weather	<input type="checkbox"/>	tiredness	<input type="checkbox"/>

5. What might a '**scurrier**' be?

_____ 1 mark

Reading – Day 10

The Scurrier

Grey clouds drag themselves across the sky.
Drooping giants shuffle off their copper cloaks
And leave them crumpled at their feet.
The year is getting tired.

The scurrier gathers memories of summer -
Seeds, nuts -
And buries them beneath her bedchamber.
A straw nest is prepared
with crisp sheets of orange and brown.
Dreams are calling.

Six moons in a single sleep.
Streams stand still and silent.
A soft, white blanket is gently lain,
Tucked in along the hedgerows,
Until, by morning's magic, the spell is broken.
Time to rise.

Day 10

1. Why are seeds and nuts described as '**memories of summer**'?

_____ 1 mark

2. Explain the play on words which the author includes in the following lines:

**'Seeds, nuts –
And buries them beneath her bedchamber.'**

_____ 1 mark

3. What is meant by '**six moons in a single sleep**'?

_____ 1 mark

4. What is being described with the metaphor '**soft, white blanket**' and how does the phrase '**tucked in**' support this impression?

_____ 2 marks

5. How does the last line of each verse contribute to the overall theme of the whole poem?

_____ 3 marks

KS2 Cross-curricular Task



Commissioned by The PiXL Club Ltd.
February 2018

This resource is strictly for the use of member schools for as long as they remain members of The PiXL Club. It may not be copied, sold nor transferred to a third party or used by the school after membership ceases. Until such time it may be freely used within the member school.
All opinions and contributions are those of the authors. The contents of this resource are not connected with nor endorsed by any other company, organisation or institution.

Year 3 & 4

WORKING SCIENTIFICALLY

Assessment Focus

- 1d. I can set up simple practical tests.
- 1k. Report on findings using written methods.
- 1p. I can evaluate by suggesting a simple improvement.
- 1q. I can raise further questions.

Year 3 & 4

WORKING SCIENTIFICALLY

Assessment Focus

1b. I can explain my predictions with an explanation using scientific concepts.

1g. I can select the appropriate equipment for an investigation.

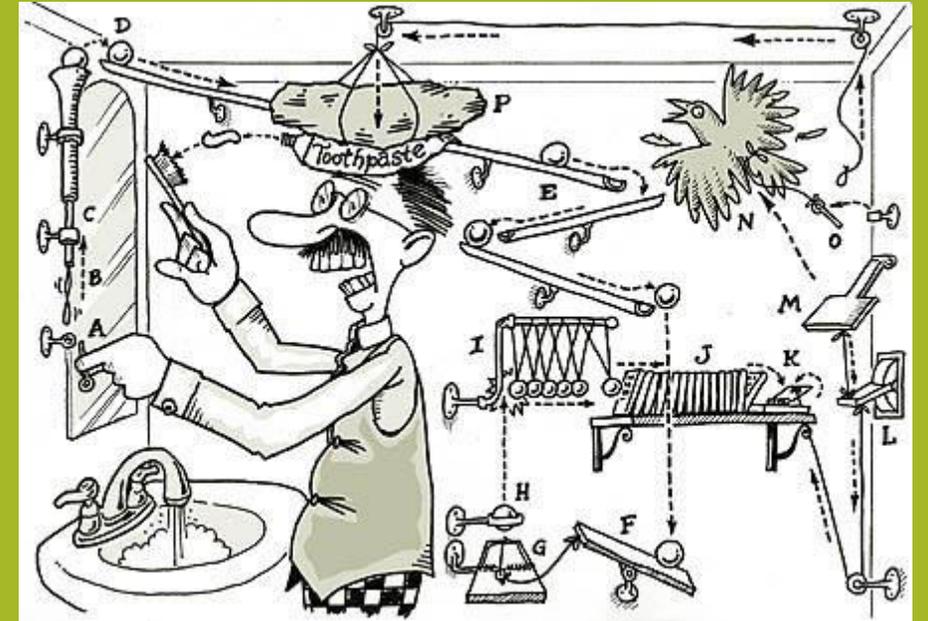
1l. I can present my findings in a variety of different ways.

1o. I can use test results to make predictions to set up further comparative.

Science Task

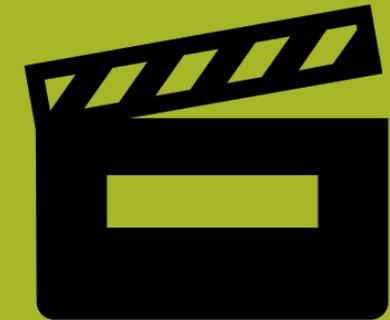
Design and build a crazy contraption.

Build together to make an amazing device to creatively solve the challenge and be part of an amazing invention.



What is Mission Impossible?

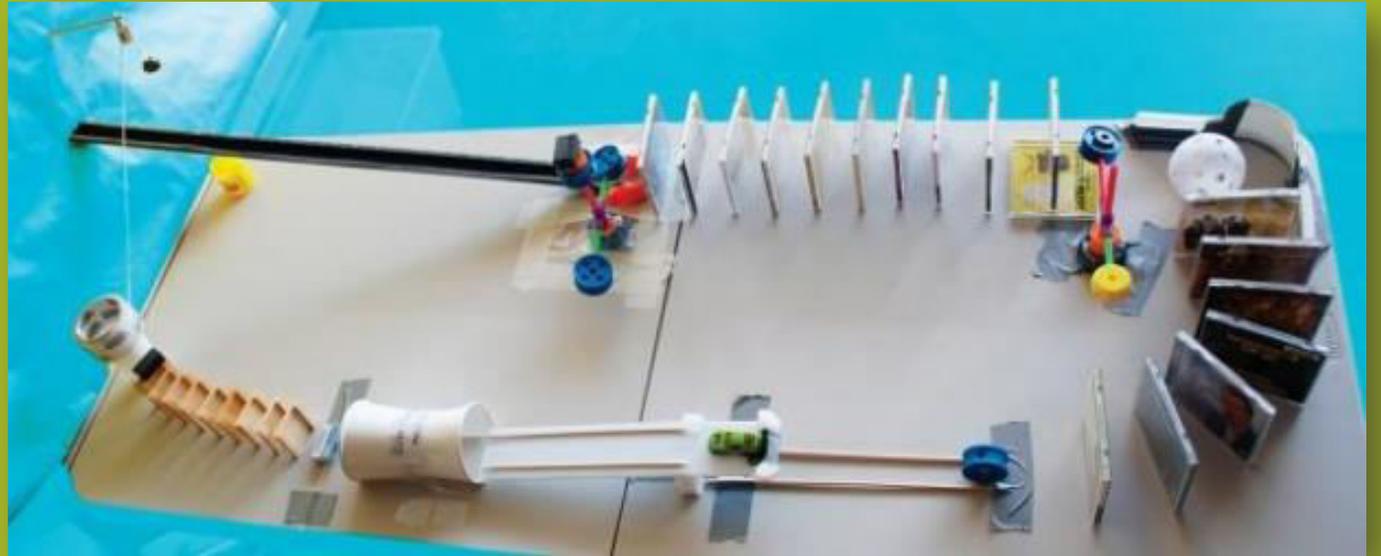
- Design, build and test a Rube Goldberg-like device.
- The device will be made of a series of consecutive tasks.
- The device must run on its own.
- Have a specific start and end task.



Click here to see a
'Rube-Goldberg'
machine in action

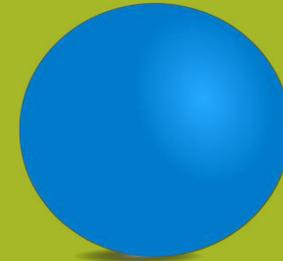
Requirements

- Maximum Size of Machine (100cm x 100cm x 100cm).
- Start and finish tasks required.
- Earn extra points by adding other tasks.

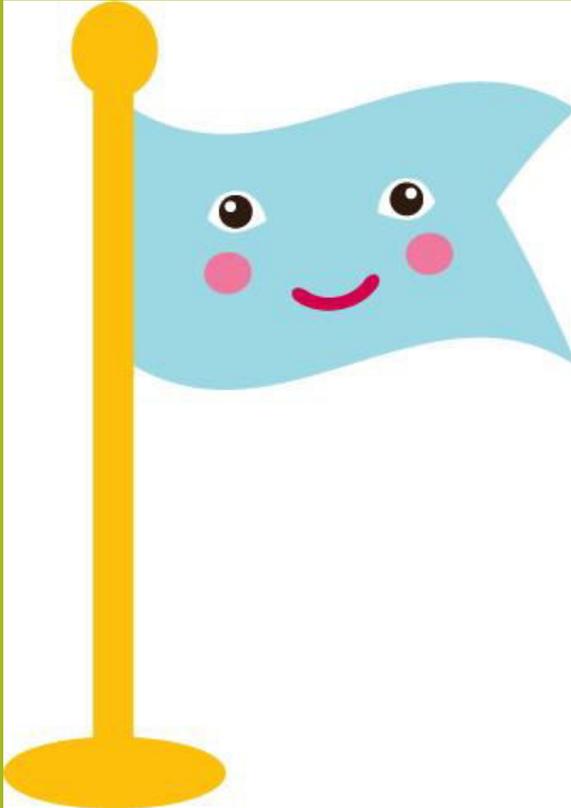


Requirements - Start Task

- Device must be started by:
 - dropping a ball from above the device
 - that will begin the chain of events leading to the final task.



Requirements - Final Task



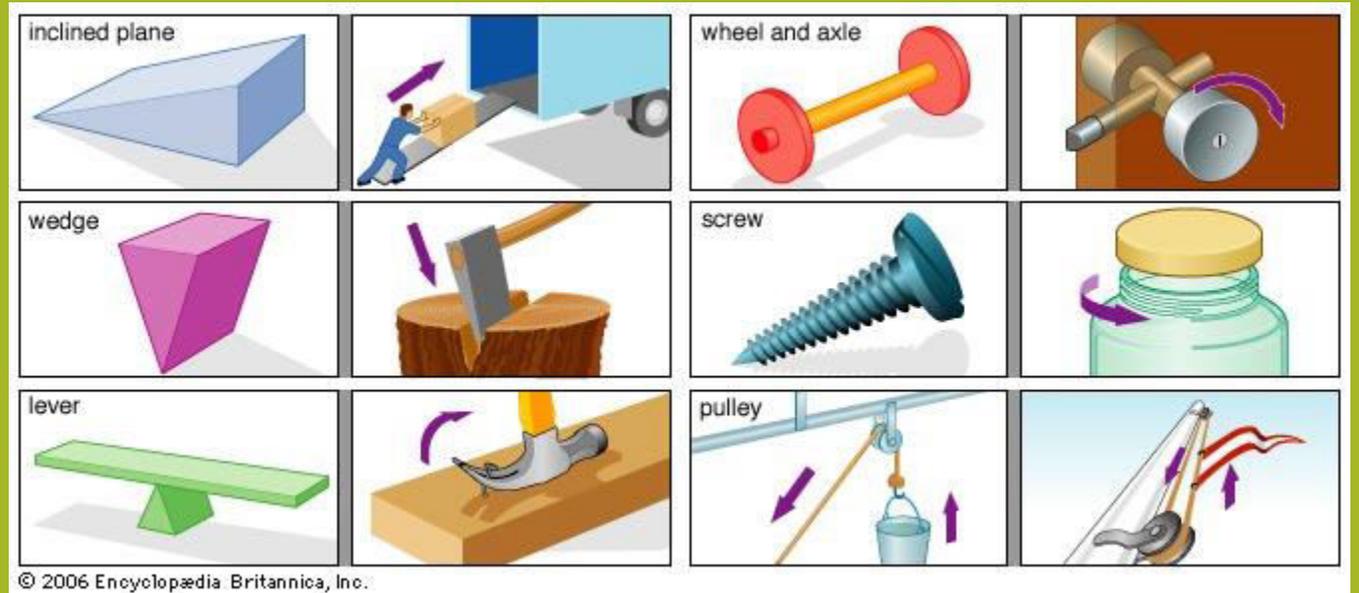
- Raise a flagpole:
 - With rectangular flag that is at least 5 cm x 10 cm.
 - The bottom of the flag must be at least 30 cm higher than all original parts of the device.

Device Operation - Timing

- Timing begins when ball dropped into device to start.
- Clock does not stop until maximum time limit of 3 minutes.
- Tasks completed after 3 minutes will not be allowed.
- Timing stops when:
 - Device fails to operate;
 - Device completes final task;
 - 3 minutes have elapsed.

Tips

- Plan your machine on paper first!
- Begin with the last step and work backwards.
- Play with the stuff and see what you can knock over or make happen.
- Don't worry if an idea seems crazy...Try it out! The idea is to look at it in a new way.
- Gravity is your friend...Use it!
- Remember levers, gears, wheels, pulley...

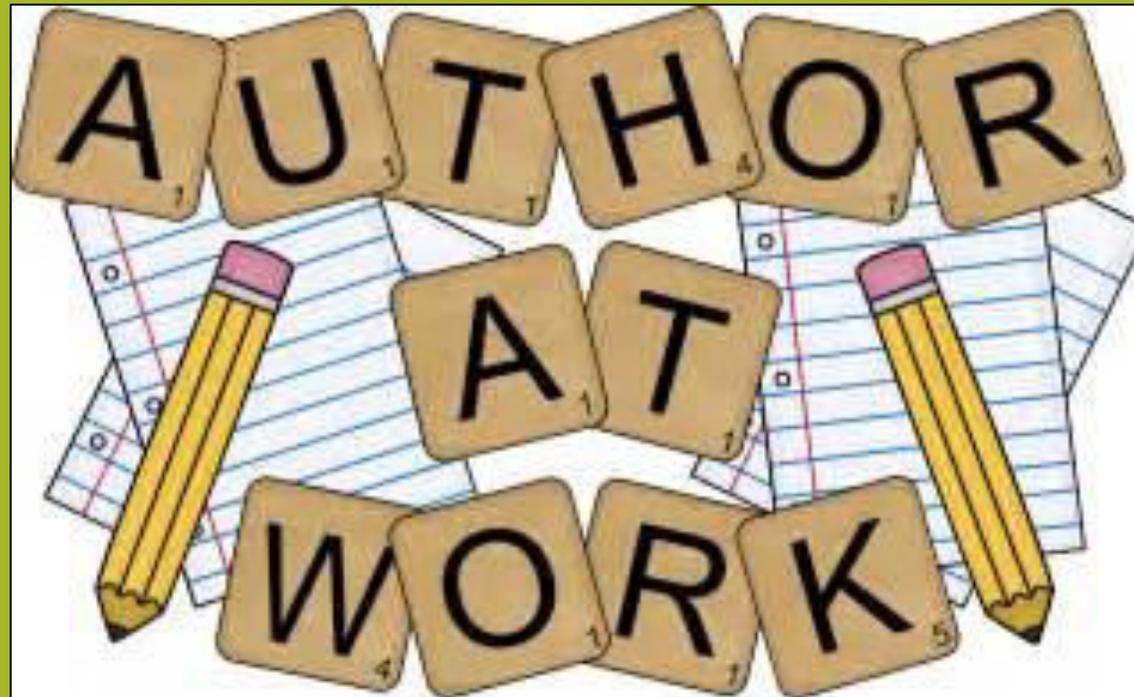


Judging will be based on 100 points scoring system:

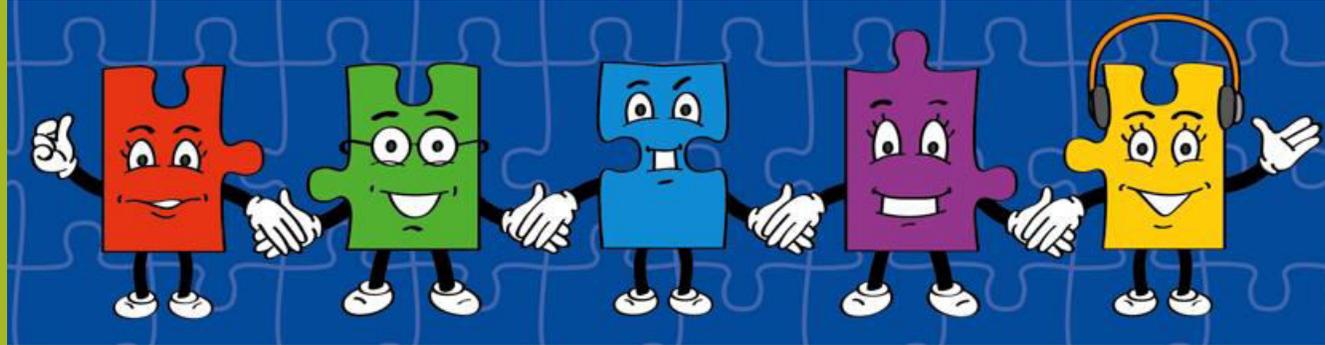
- Complete first and final task (10).
- Additional steps to your machine (up to 8 more can be added to the first and final task) (10 marks per step).
- Objects leaving machine (-5).
- Creativity using scientific and mathematic knowledge and skills (0 -10).



Writing Task



LORIC



Our Primary Edge attributes help us to become better learners and today is no exception.

Command words:

Create

Communicate clearly

Convince

Persuade

Developing Communication Skills



Use this activity to help children develop their communication skills before you begin the task.

Match It!

Have a list (or a set of cards) of science key words relating to working scientifically. The first person chooses one of these and has to match it with its definition and see how many they can get in 30 seconds. Swap over and see who is the quickest.



3c. Can select and use the appropriate structure and features for a text type.

Writing Task

Using your findings
write a **scientific recount**
for an **exhibition**
showcasing your
invention.



3c. Can select and use the appropriate structure and features for a text type.

Key questions before writing:

What is the **PURPOSE** of my writing?

Who is the **AUDIENCE** for my writing?

How will I **ORGANISE** it?

How will I make it **ENGAGING** for the reader?

Your turn: Look at the text below and highlight the features of a report:

What happens when vinegar is put on rock?

My results show me that fizzing only occurs with those minerals that contain chalk, marble or limestone. The results also show that it doesn't matter what type of vinegar you use.

I conclude that chalk, limestone and marble react with vinegar to produce a fizz. You could use vinegar to test whether rocks contain these or not.

Clear chronological order

Past tense

Technical vocabulary

Diagrams and pictures

First person

3c. Can select and use the appropriate structure and features for a text type.

Structure

Introduction to problem
Section 1: Materials
Section 2: Procedure
Section 3: Analysis of results
Project conclusion

Greater Depth

Can you include an informal paragraph to contrast with the formality of your text?

Greater Depth

Can you use a range of punctuation to add detail and clarify meaning?

Remember to make sure you use accurate punctuation to communicate your ideas clearly!



Support Mat: Sentence openers and scientific vocabulary.

Sentence Openers

To begin with . . .

As a result of . . .

Consequently . . .

Subsequently . . .

As a result of ...

Because ...

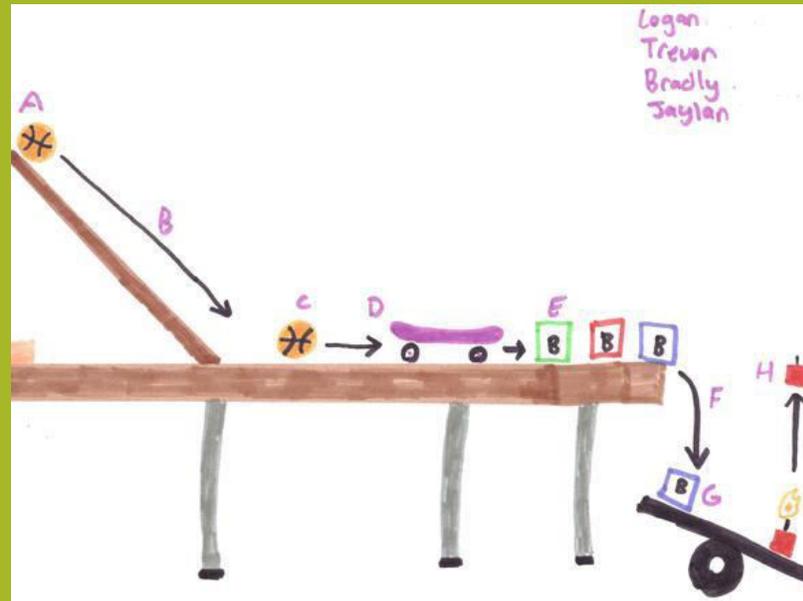
First . . .

Next . . .

After . . .

Meanwhile . . .

Finally . . .



Scientific Vocabulary

accuracy

gravity

friction

energy transfer

balanced forces

unbalanced forces

pulley

gears

levers

pivots

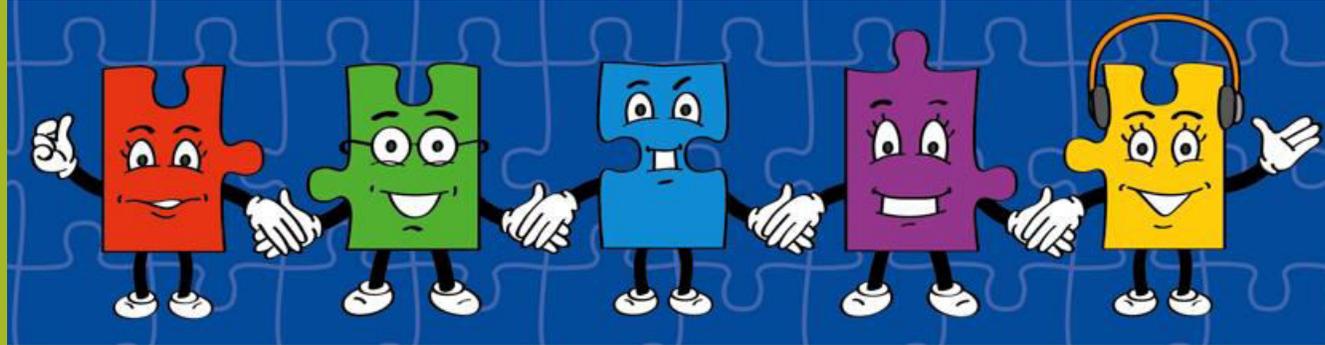
increase

decrease

Maths Task



LORIC



Our Primary Edge attributes help us to become better learners and today is no exception. Before you start this activity, here are some ideas for how you will need your skills today: **Olly Organisation.**

Command words:

Plan Systematic
Create Organise
Construct
Methodical

Developing Organisation Skills



Use this activity to help children develop their organisational skills before you begin the task.

Sort It!

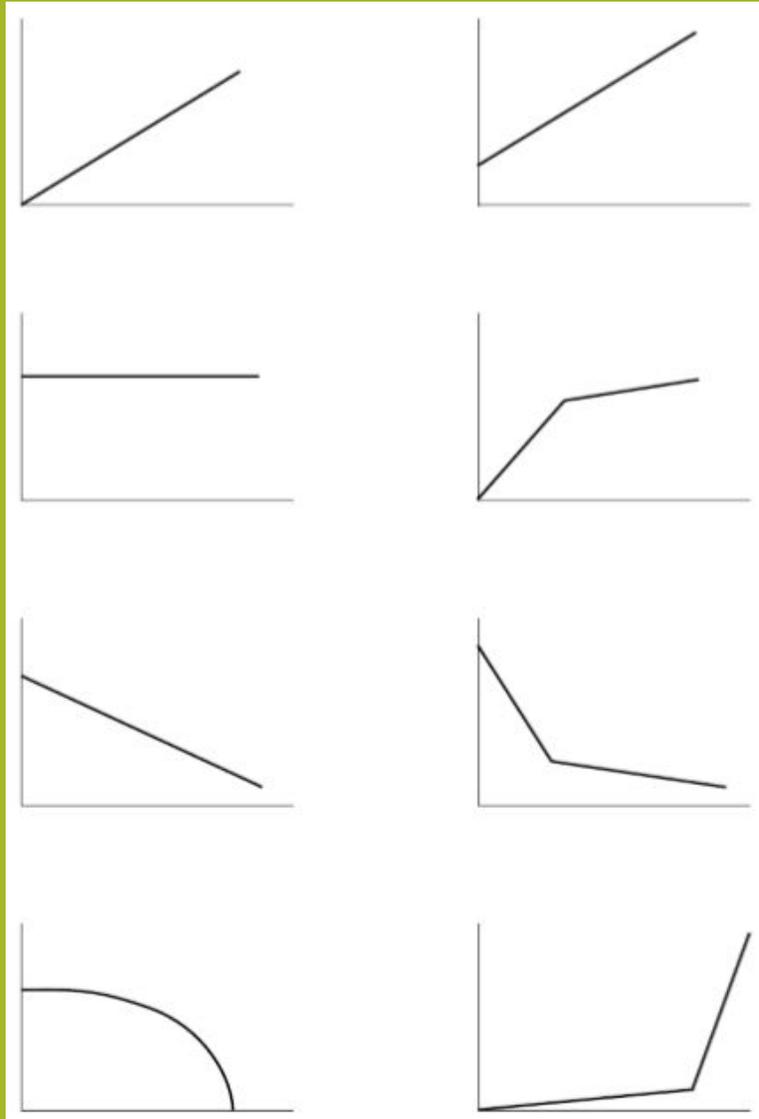
Give the children a list of steps to draw a graph and get them to put them in the appropriate order in two minutes.

or

Order! Order!

Give pupils a list of decimal values (vary the number of places according to ability). Can you organise them into ascending/descending order in 1 minute?

11b. Can construct and interpret line graphs.

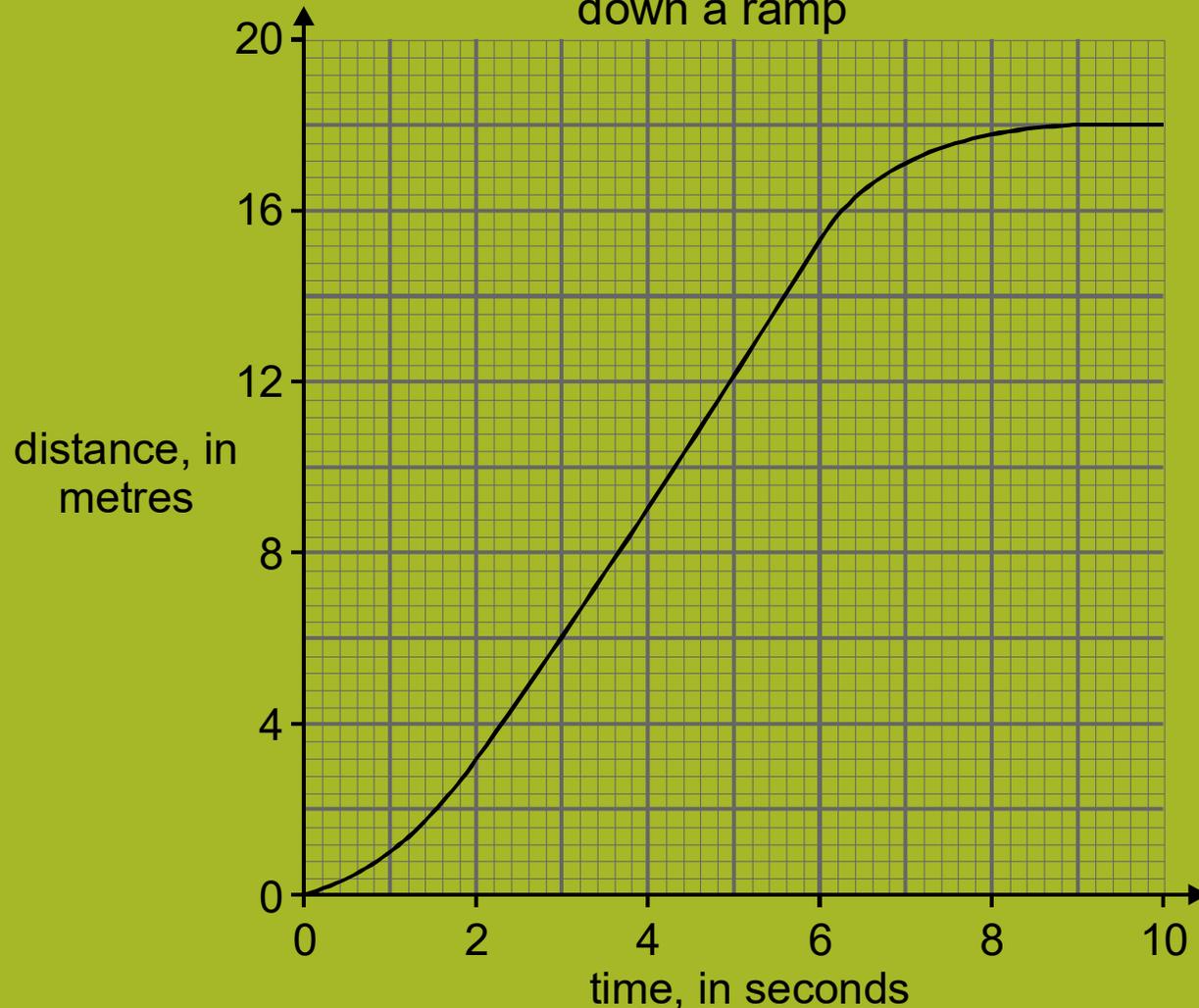


Discussion
Could you tell the story of these lines?

Discussion
What is missing?

11b. Can construct and interpret line graphs.

Distance travelled by toy car
down a ramp



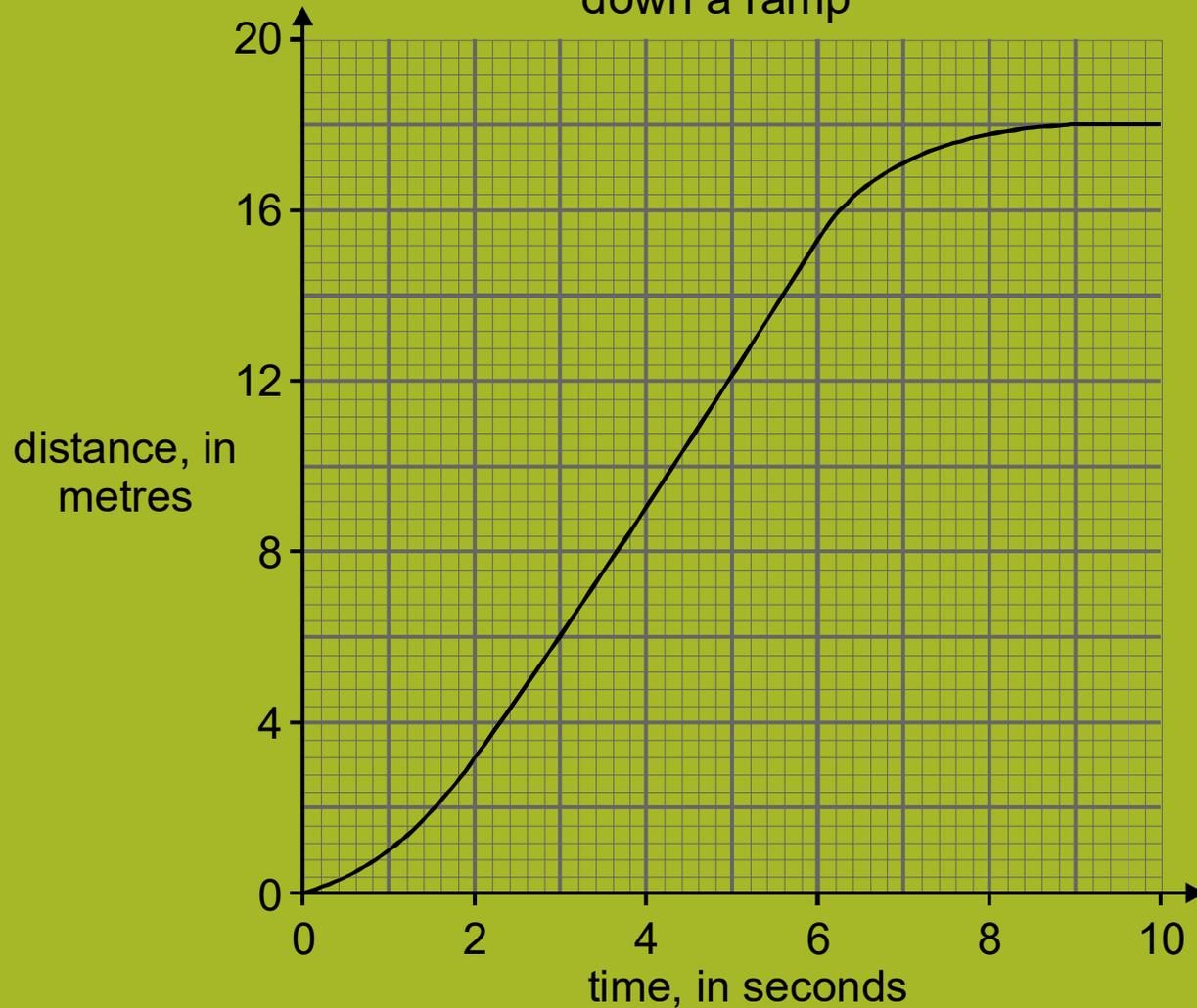
What is the graph telling you?

How do you know?

Will the times continue to get faster or is there a limit? What is that limit?

11b. Can construct and interpret line graphs.

Distance travelled by toy car
down a ramp



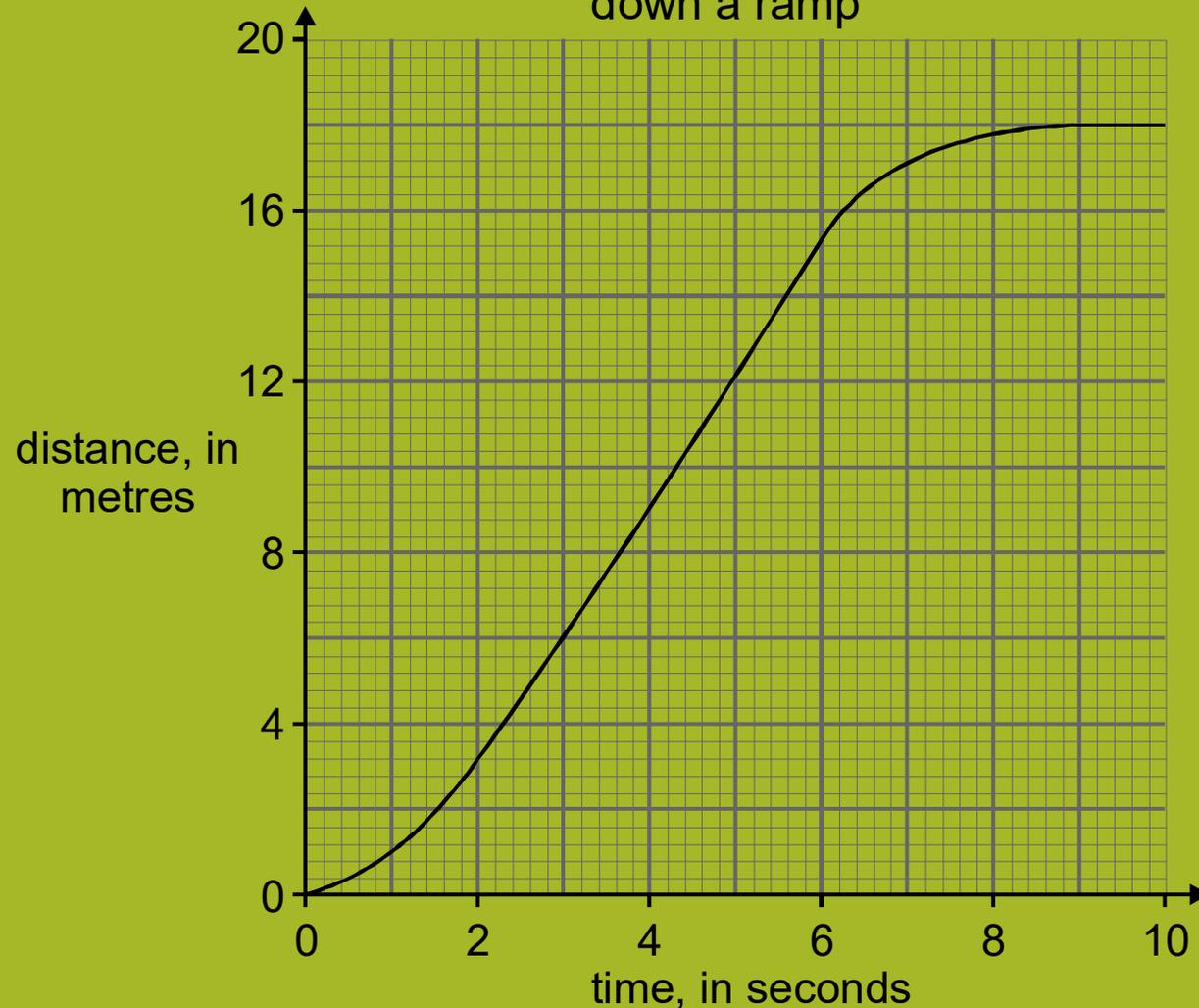
Use the graph to answer these questions:

What was the distance at 2 seconds?

How long did it take to travel 12 metres?

11b. Can construct and interpret line graphs.

Distance travelled by toy car
down a ramp



Discussion

What would be on
your checklist for
drawing a line graph?

11b. Can construct and interpret line graphs.

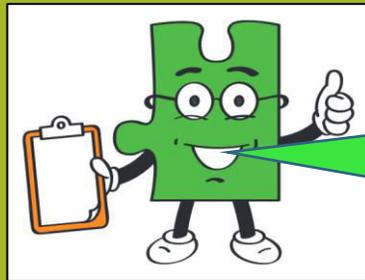
Check list for a line graph

- Axes labelled at regular intervals.
- Axes labelled with units of measurement.
- Points plotted precisely.
- Points connected precisely.
- A clear title to explain the content.

11b. Can construct and interpret line graphs.

Your turn

Use the data from your testing of the device to construct line graphs for your recount showing measurements you made to help ensure the task took 30 seconds.



Make sure you are organised and methodical.

Holiday Challenge: Reading '10 Challenges for 10 Days'

Answers

Commissioned by The PiXL Club Ltd.

This resource is strictly for the use of member schools for as long as they remain members of The PiXL Club. It may not be copied, sold nor transferred to a third party or used by the school after membership ceases. Until such time it may be freely used within the member school.
All opinions and contributions are those of the authors. The contents of this resource are not connected with nor endorsed by any other company, organisation or institution.

© Copyright The PiXL Club Limited

Day	Qn	Content domain	Question	Answer												
1	1	2a	'... the material can return to its original state'. Explain the meaning of the word original in this sentence.	Any answer that refers to how it was before the change.												
	2	2a	Which words most closely match the meaning of constitutes ? Tick one . warms up <input type="checkbox"/> dries up <input type="checkbox"/> makes up <input checked="" type="checkbox"/> mixes up <input type="checkbox"/>	makes up												
	3	2b	Where in the home can reversible and irreversible changes be seen 'time and time again'?	(in the) kitchen												
	4	2a	Which word or phrase most closely matches the meaning of the word opaque ? Circle one ? not transparent not solid yellowy runny	not transparent												
	5	2b	At what temperature does albumen usually finish changing?	(at around) sixty-five degrees centigrade												
2	1	2a	In paragraph two, which word is used to describe the way the molecules change from being curled up to becoming straighter?	unfurl												
	2	2b	What is albumen?	egg white												
	3	2b	What do the protein molecules do that makes the albumen become stiff?	They unfurl or straighten up. They make bonds with other molecules.												
	4	2h	Name two differences between albumen and yolk.	Any two of the following: <ul style="list-style-type: none"> • One is white, the other is yellow. • Yolk has fat and carbohydrates; albumen doesn't. 												
	5	2c	Using information from the whole text, tick one box in each row to show whether each statement is true or false. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>True</th> <th>False</th> </tr> </thead> <tbody> <tr> <td>You only see irreversible changes in the kitchen.</td> <td></td> <td>v</td> </tr> <tr> <td>Heat makes the protein molecules straighten up.</td> <td>v</td> <td></td> </tr> <tr> <td>Albumen contains protein, fat and carbohydrates.</td> <td></td> <td>v</td> </tr> </tbody> </table>		True	False	You only see irreversible changes in the kitchen.		v	Heat makes the protein molecules straighten up.	v		Albumen contains protein, fat and carbohydrates.		v	2 marks for all three boxes correctly ticked. 1 mark for 2 boxes correctly ticked.
	True	False														
You only see irreversible changes in the kitchen.		v														
Heat makes the protein molecules straighten up.	v															
Albumen contains protein, fat and carbohydrates.		v														

3	1	2b	In what year did the Romans start building Hadrian's Wall?	122 C.E.
	2	2a	Which word or phrase most closely matches the meaning of legacies ? Tick one . historical books <input type="checkbox"/> ruins <input type="checkbox"/> lasting examples <input checked="" type="checkbox"/> soldiers <input type="checkbox"/>	lasting examples
	3	2b	Some people believe the wall was built to form a barrier between which two countries?	England and Scotland
	4	2b	Find and copy the adjective that describes the ' barbarians '.	aggressive
	5	2a	Which word or phrase most closely matches the meaning of ' motive '? Circle one . excuse reason money countryside	reason
4	1	2a	Explain what ' divine instruction ' means. Use evidence from the text to support your answer.	Instruction, or ideas, suggested by a god because the article says that it's not clear which of the Roman gods inspired him.
	2	2d	Find and copy the phrase that suggests that the wall might not have been a successful way of protecting the Romans.	'... walls rarely offer an effective barrier to invasion'.
	3	2d	'It might have been a simple expression of the power of Rome.' What do you think ' expression of power ' means?	Any answer suggesting that the Roman Empire was making a show of how strong or mighty it was.
	4	2c	Write down two real reasons, suggested in the article, as to why the wall was built.	Any two of the following: <ul style="list-style-type: none"> • making a show of strength • protecting against barbarians • tax collecting • divine instruction
	5	2d	What suggests that the Romans were not the only people who avoided admitting 'out loud' that they wanted to collect taxes?	It says, 'How little things have changed!' which suggests that people still avoid it today.
5	1	2a	Find and copy the word that tells you how Rock beats Scissors.	blunts

	2	2b	Name two of the benefits of water given in this article.	Any two from: <ul style="list-style-type: none"> essential for life swimming paddling in the surf relaxing in a bath
	3	2b	How does the article describe the power of water? Find and copy both words.	fearfully destructive
	4	2a	Which word is closest in meaning to apparent ? violent <input type="checkbox"/> risky <input type="checkbox"/> solid <input type="checkbox"/> obvious <input checked="" type="checkbox"/>	obvious
	5	2b	What happens during undercutting ?	Any answer that summarises the following information: <ul style="list-style-type: none"> Waves crash onto the land, picking up stones and hurling them at the base of the cliffs. Over time, this wears away the rock in a process called undercutting.
6	1	2d	What does the author mean by the ' daily battering of the shore '?	Any answer that refers to the regular, destructive impact of the sea and waves on the land.
	2	2b	Why does the cliff face become unstable ?	Answers referring to the way that the base of the cliff is eroded, making the cliff above unable to support itself.
	3	2d	Why is water described as a ' mere liquid '?	Answers suggesting that water can sometimes seem gentle or not as hard as rock.
	4	2g	Why does the article suggest that including water in Rock, Paper, Scissors would make for a 'long game'? Use evidence from the text to explain your answer.	Plausible answers referring to mentions in the text about erosion happening 'over time' so water beating rock would take a long time.
	5	2f	Draw lines to match each quote with its correct part of the text. Refers to the gentle nature of water ← 'wears away the rock' Refers to the harmful nature of water ← 'paddling in the surf' Explains undercutting ← 'fearfully destructive'	2 marks for all three boxes correctly ticked. 1 mark for 2 boxes correctly ticked.

7	1	2d	Find two ways in which the author suggests that Edmund is feeling troubled about something.	Pick two from: <ul style="list-style-type: none"> • heavy heart • sullenly • rising anxiety • confront his fate
	2	2b	Which word is closest in meaning to mire ? mud <input checked="" type="checkbox"/> boat <input type="checkbox"/> misery <input type="checkbox"/> clouds <input type="checkbox"/>	mud
	3	2g	In what way was the tide like his anxiety?	Answers referring to his anxiety rising or increasing like the rising tide.
	4	2d	How do we know that Edmund is worried about going back to the monastery? Use evidence from the text to support your answer.	Answers referring to his low mood, having to 'confront his fate' and concerns that the monks would not show him any mercy.
	5	2b	Find and copy the word that says what the monks ' expected from their god '.	mercy
8	1	2a	Which word is closest in meaning to ominous ? Tick one . tall <input type="checkbox"/> threatening <input checked="" type="checkbox"/> slow-moving <input type="checkbox"/> colourful <input type="checkbox"/>	threatening
	2	2g	Was there a real dragon? How do you know?	No, because, directly after mentioning the dragon's head, the text says that the full horror of the long-ship was soon revealed.
	3	2d	What showed that the oars were ' well-trained '?	Answers referring to the idea that they barely raised a ripple, which meant that the boat could move silently upstream.
	4	2e	What did Edmund think might happen that made him want to return to the monastery?	Answers suggesting that it was a raiding party and that would probably mean that they would attack the monastery.
	5	2h	How do you think Edmund's mood changed from the beginning of the extract to the end? Explain your answer with evidence from the text.	Answers covering the following points:

				<ul style="list-style-type: none"> At the beginning he was sad and worried about going back to the monastery to 'confront his fate'. By the end, he was alarmed and scared because he had seen the 'full horror' (of the long-ship); he knew it was a raiding party of warriors, and he had to get back 'fast'.
9	1	2b	Find and copy the word that describes how the clouds move across the sky.	drag
	2	2d	What do you think the 'drooping giants' are?	trees
	3	2d	What is meant by 'copper cloaks'?	The orange and brown leaves which fall to the ground in autumn.
	4	2c	Which word best describes the theme of the first verse? joy <input type="checkbox"/> waiting <input type="checkbox"/> weather <input type="checkbox"/> tiredness <input checked="" type="checkbox"/>	tiredness
	5	2d	What might a 'scurrier' be?	Any plausible woodland or field mammal, such as a dormouse or squirrel, that collects nuts, seeds and berries and is thought to hibernate. (Factual accuracy is less important than a reasonable guess as squirrels do not hibernate.)
10	1	2g	Why are seeds and nuts described as 'memories of summer'?	Answers that refer to nuts and seeds growing during the summer but being collected in the autumn, after the summer months have passed.
	2	2g	Explain the play on words which the author includes in the following lines: 'Seeds, nuts – And buries them beneath her bedchamber.'	The word 'buries' sounds like 'berries' and continues the theme of food from 'seeds, nuts'.
	3	2f	What is meant by 'six moons in a single sleep'?	Six months – approximate duration of a dormouse's hibernation.

	4	2d	What is being described with the metaphor ' soft, white blanket ' and how does the phrase ' tucked in ' support this impression?	A covering of snow is like a blanket. Blankets are 'tucked in' along the sides of a bed.
	5	2h	How does the last line of each verse contribute to the overall theme of the whole poem?	Answers that refer to the idea that all three final lines mark the steps in sleeping. 'Getting tired' and 'Dreams are calling' suggest that the 'scurrier' is getting ready for a long sleep (hibernation). Time to rise suggests that the sleep is over.

Holiday Challenge: Writing '10 Challenges for 10 Days'

Answers

Commissioned by The PiXL Club Ltd.

This resource is strictly for the use of member schools for as long as they remain members of The PiXL Club. It may not be copied, sold nor transferred to a third party or used by the school after membership ceases. Until such time it may be freely used within the member school.
All opinions and contributions are those of the authors. The contents of this resource are not connected with nor endorsed by any other company, organisation or institution.

© Copyright The PiXL Club Limited

Day one	Answer
1	imposed – the regular past tense ending is the suffix -ed
2	knew – this is the past tense of ‘to know’ not the adjective/ homophone ‘new’
3	definite – this is from my Y5/6 common exception words: the ending is ‘ite’ like the ending of the word ‘infinity’ which I know makes an ‘i’ sound
4	rattled – this has a double ‘t’ because I know to double the consonant after a vowel that has a short vowel sound, with the suffix -ed for a past tense verb
5	dramatically – to add the ‘ly’ suffix to a word ending in ‘ic’ (dramatic), I know to add ‘ally’
6	announced – this is a word which I have learned with other words that begin ‘a’ and are followed by a double consonant
7	argument – this is an exception to the rule where you just add the suffix -ment to words ending in ‘e’ because the ‘e’ here is preceded by a vowel. Take off the ‘e’.
8	lightning – this is from my Y5/6 common exception words and I know to spell it with the two syllables as you say it; ‘light’ and ‘ning’
9	deafening – the ‘uh’ sound is made by an ‘e’ in this word so I need to say it clearly
10	cupboard – this is a word that I have learned using the trick ‘cups’ go in ‘cupboards’

Day two	Answer
1	angle – I know the mathematical word ‘angle’ ends in -le because the ending -el spells the word ‘angel’
2	where – I know that it is a common mistake to muddle up the words ‘were’ and ‘where’. The word ‘where’ has an ‘h’ in it for ‘w-here’.
3	surface – although this word sounds like ‘surfice’ when I say it, I can remember the spelling as it means the outer ‘face’ of an object
4	source – I have learned that the ‘or’ sound in this word is spelled ‘our’ so I can see that this word does not look right
5	originally – the suffix -ly has been added to the word ‘original’ so that results in double ‘l’ in the word
6	designs – this is a word that I have learned using the trick ‘designers design signs’
7	appear – I have learned this word as part of my Y3/ 4 spellings so I know it must have double ‘p’ in it
8	alternatively – for this word I know to keep the ‘e’ before I add the suffix -ly
9	butterflies – this word follows the rule ‘change the y for an i’ and add -es for the plural
10	easiest – this word follows the rule ‘change the y for an i’ and add the suffix -est

Day three	Answer
1	hadn't – this word is a contraction of the words <i>had not</i> so it needs an apostrophe for omission of the 'o'
2	chalk: TIDY – there needs to be a colon to separate the sentence from the message (or the clause) that was on the board or it does not make sense when you read it. You can hear the pause.
3	"Pathetic – this needs inverted commas before it because it is the start of what someone is saying
4	Mum," – 'Mum' needs a comma between it and the inverted commas (not a full stop) because the sentence continues after the spoken words with 'muttered Harley'
5	Crash! – this needs an exclamation mark after it because it is a sudden noise so it should stand alone as a one-word sentence
6	When his heart had stopped racing, – this subordinate clause at the beginning of the sentence needs a comma after it to separate it from the main clause
7	kitchen. – this is the end of the sentence so it needs a full stop
8	wasn't – this word is a contraction of the words <i>was not</i> so it needs an apostrophe for omission of the 'o'
9	Grudgingly, – this needs a comma after it because it is a fronted adverbial
10	what else was there to do? – this needs a question mark at the end (not a full stop) as it's a question

Day four	Answer
1	cultures – this does not need an apostrophe because there is no omission or possession involved: it is a plural which does not need an apostrophe
2	what's – this word is a contraction of the words <i>what is</i> so it needs an apostrophe for omission of the 's'
3	thing! – end punctuation is missing here: it could be a full stop or an exclamation mark
4	hand, – this needs a comma after it because it is a fronted adverbial
5	you're – for the sentence to make sense, this must be the contraction for <i>you are</i> which needs an apostrophe for omission to replace the 'a'
6	history, – this needs a comma after it because it is part of a list
7	sporting activities or – no comma is needed between <i>activities</i> and <i>or</i> because it is the end of a list and follows the same rule as 'and' in a list
8	(where – an open bracket must go here to mark the beginning of the additional detail that has been added about the beaches. The close bracket at the end is a clue that a bracket is missing.
9	don't – the apostrophe must go between the 'n' and the 't' to replace the 'o' because the contraction is for the words <i>do not</i>
10	waves). – the full stop must be outside the close bracket

Day five	Answer
1	prickling his eyes – missing pronoun
2	he sprinted down – incorrect tense, should be -ed suffix for the past tense
3	By this time, he was deep – incorrect pronoun <i>she</i>
4	well-hidden . Best of all – overly long sentence, independent clauses need separating
5	he knew that – incorrect tense, irregular past tense of the verb <i>to know</i>
6	in the small grassy – missing determiner
7	He dropped – incorrect perspective (person): this text is in the third person
8	to his knees – incorrect possessive pronoun for the perspective (third person)
9	out of sturdy branches – repetition of the word <i>of</i>
10	leafy/ thorny/ thin (any acceptable adjective) twigs – incorrect word choice/ repetitive

Day six	Answer
1	Sometimes I – incorrect perspective (person) for this first-person narrative
2	into a crate – missing determiner
3	have to break in to – repetition of the word <i>to</i>
4	When I was younger – incorrect verb tense: should be past tense for shift to recount past events
5	dockside . In those days – overly long sentence, independent clauses need separating
6	I was much more agile – missing word
7	find my way – incorrect possessive pronoun for the perspective (first person)
8	the ones who lived on board – incorrect verb tense, should be -ed suffix for the past tense
9	once or twice – missing word
10	less choice , but – incorrect word choice: should be the noun, not the verb

Day seven	Answer
1	islands, you will find – incorrect perspective, should be the second person for the direct address to the reader in the introduction
2	only appear at night – incorrect verb tense, should be present tense
3	them their mysterious reputation – missing possessive pronoun
4	bugs to blood – incorrect choice of word (<i>too</i>)
5	Often, they hunt them – incorrect pronoun, plural pronoun to replace <i>bats</i>
6	their prey . The largest – overly long sentence, independent clauses need separating
7	ripping them off trees – spoken English error (<i>off of</i>),
8	they hang upside down – incorrect verb tense, should be present tense
9	catch frogs and even fish – repetition of the words <i>even fish</i>
10	mammals such as – missing word

Day eight	Answer
<p>This text is in the Writing Portfolios on Primary Wise. Here is an example of editing based on the original text which can be used to show pupils possible options.</p>	<p>“Come on! Look, I’ve found something!” whooped Jamie, as he leaped off his new BMX bike. The two boys were crouched over an old, tattered brown suitcase placed in between two spiky tree trunks. Without hesitation, they wrenched open the case – opening their eyes to an amount of money that they would never have dreamed of. At that very moment, Jamie saw pound signs dance in front of his eyes. Heart beating like a drum, Jamie sorted through the other contents until he noticed a black shotgun with a blood-stained leather handle.</p>

Day nine	Answer
<p>This text is taken from the Model texts on Primary Wise. Here is the original text which can be used to show pupils possible editing options.</p>	<p>On Saturday 14th July, I came into your branch of TechStop to purchase a combined laptop/tablet to help with my school work when I move up to high school next year. Having saved up for over a year, I was both excited and anxious: I couldn’t wait to get what I had been working towards, but equally I wanted to make sure I bought the right thing. That is why I was determined to talk through my requirements thoroughly with one of your sales team. Although I can’t remember his name – the receipt just says ‘Tech Team 14’ – I can tell you that the person who served me was a man, probably in his twenties, with dark brown hair and a beard.</p>

Day ten	Answer
<p>This text is taken from the Model texts on Primary Wise. Here is the original text which can be used to show pupils possible editing options.</p>	<p>Iceland is a land of surprises. A land of experiences. A land of adventure. Located in the North Atlantic Ocean, just outside the Arctic Circle, it boasts a dramatic landscape capped by active volcanos and fringed with rugged coastlines. For those who love the outdoors, it’s got everything from spectacular views to specialist sports. Best of all, with the daylight in the summer lasting nearly all the way round the clock, you can really pack your days with thrills!</p> <p>Iceland is a force of nature. Shaped by hundreds of volcanos, including around 30 that are still active, it has giant glaciers, wonderful waterfalls, bizarre beaches of black sand and eerie fields of living lava. No wonder it has been called the land of fire and ice!</p>