Year 6 - Home Learning Project - Week 12 - 06/07/2020: Perilous Peaks

Daily activities:

English worksheet and tasks	Maths	Reading Plus	TTRS and Numbots	PE session	A Topic activity from the choices below.
Look at 'The House in The Rainforest' and complete the tasks below.	Complete the White Rose Maths tasks at the end of this document - 1 per day. **Ensure you watch the video before you complete the task.**	Log into Reading Plus and complete your weekly reading comprehension tasks and vocabulary tasks. *Site code: rpendea2*	Working on Times Table Rockstars - Can you complete all the set games and challenge somebody in our school? Are you winning in the current Battle of the Bands?	Join Joe Wickes live every Mon, Weds and Fri morning @ 9:00am or access it any time throughout the day.	Try to complete all of the tasks and send your work to your teacher.

This week's themed learning is based around our <u>new topic</u> of **Perilous Peaks.**

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Geography: Would you live on a mountain?

Mountains are some of the most picturesque areas in the world. It has been estimated that 12% of the world's 6.8 billion people live in mountain areas. That means there is about three-quarters of a billion (seven hundred fifty million) people living in mountain areas.
The Alps are the most densely populated mountain area in the world with thirteen million people living there!
People, as well as other animals and plants, have adapted to living in high altitudes for example: The South American Uru tribe have larger hearts and lungs to breathe the thin air at high altitudes.

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History: The Mass Trespass of Kinder Scout

On 24 April 1932, hundreds of ramblers from Manchester and Sheffield set off for the highest point in the Peaks. They wanted to highlight the unfairness of their limited rights to access an outstandingly beautiful area of countryside which was rarely farmed by its wealthy owners but instead kept only for occasional grouse (bird) shooting. The walk would go down in history as the Kinder Scout Mass Trespass of 1932 (named after the area), and would later be seen as one of the most important moments in the struggle for public access to private land.
Read more about it on the National Trust website.

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Religion: Places of Worship

A place of worship is a specially designed structure or space where individuals or a group of people come to perform acts of devotion, respect or religious study.
Think about the following questions and write a clear explanation.
Q1: Can you think of the different places of worship you have studied? Write the place of worship for the following religions – Hinduism, Judaism, Christianity, Islam, Buddhism, Sikhism

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Would you choose mountain living as a way of life? What are the advantages and disadvantages of living on a mountain? Read through the descriptions here and here and then complete the template below to list the pros and cons.

After this, write a paragraph to explain if you would like to live on a mountain or not.

Look at the route the original protestors took. In stages 3, 5 and 6 what differences are there between the route in 1932 and the route today? You can read more detail about the event below. When you are finished reading, imagine that you were there as a reporter.

Write a newspaper report describing the events. (template below)

Q2: What do you believe to be the most important function of a place of worship? Why? Explain your answer.

Science: Sir David Attenborough

Sir David Attenborough is an English broadcaster and natural historian. He is best known for writing and presenting, in conjunction with the BBC Natural History Unit.

Did you know? He's thought to be one of the most well-travelled people on the planet? For *The Life of Birds* documentary, he travelled a whopping 256,000 miles – that's the same as travelling around the world ten times!

He is also the only person to have won BAFTAs for programmes in black and white, colour, HD, and 3D.

Task1: find out more about David Attenborough by watching this video made for his 90th birthday celebrations. Make notes as you watch to collect more information.

Task 2: Read the information on David Attenborough below and answer the questions about his life

Task 3: What did David Attenborough do for science? Find out more here. How did this great natural historian shape our knowledge of the natural world? Imagine someone who didn't know who David Attenborough asked you about what he did.

Write a paragraph to explain the important advancements Attenborough made to science and the wider world.

Spanish: Food

We've explored Spanish food this year and learned lots of vocabulary for fruit and vegetables (frutas y verduras). This week we'd like you to try making a typical Spanish dish called Pan con tomate y aceite. Follow the recipe on BBC

English Grammar: Embedded and relative clauses

Relative clauses add information to sentences by using a relative pronoun such as who, that or which.

The relative clause is used to add information about the noun, so it must be 'related' to the noun.

For example: Rachel liked the new Trolls movie, which was very funny.

A relative clause can also be an embedded clause if it is positioned in the middle of a sentence

[Bitesize](#) and practise the Spanish vocabulary as you go. Best of all you get to eat your work when you're finished. Don't worry if you can't get the ingredients, you can still read and practise the recipe. What other typical Spanish dishes can you find out about? (There is a printable version of the recipe below)	**For example:** Mohammad, who scored the winning goal, was congratulated by his team. Take a look at further examples of sentences with relative and embedded clauses below and then practise writing some of your own with the correct punctuation.

Sticky Knowledge (remembering our previous learning):

History: Democracy in Ancient Greece Democracy in Ancient Greece was unlike any other country at the time. All citizens could have a vote however not everyone was counted as a citizen. Recap on our previous learning [here](#). Look below to see a selection of people who would have lived in Ancient Greece – can you separate them in to people who could vote and people who could not vote? Explain your reasons. Is this system of voters the same or different to our modern day U.K system? What are the similarities? What are the differences?	**Geography: Digimap skills** In 1932 around 500 walkers, mostly from Manchester, trespassed en masse and walked from Hayfield to Kinder Scout to secure access rights to open country for everyone. Can you log on to Digimaps and use your mapping skills to locate Manchester, Sheffield, Hayfield and Kinder Scout? School login: SK14 5PL Password: jarves84

Science: Fossils
Take a look at [BBC Bitesize](#) on the 30th of June where you can find David Attenborough teaching a science lesson on dinosaurs and fossils.

Website links mentioned above:

https://www.moving.com/tips/the-pros-and-cons-of-living-in-the-mountains/ - Geography living on a mountain pros and cons

https://www.discoveravalon.life/advantages-and-disadvantages-of-living-in-the-mountains/ - Geography living on a mountain pros and cons

https://www.nationaltrust.org.uk/kinder-edale-and-the-dark-peak/trails/kinder-scout-mass-trespass-walk - History - Kinder Scout Trespass

https://www.bbc.co.uk/bitesize/topics/zv4d7sg/articles/z6knf4j - Spanish Food

https://www.youtube.com/watch?v=z0B4KEXVago – Science David Attenborough Interview

https://www.bbc.co.uk/iplayer/episode/p089zkjn/bitesize-79-year-olds-week-9-2-fossils - BBC Bitesize David Attenborough lesson

https://www.bbc.co.uk/teach/nine-astonishing-ways-david-attenborough-shaped-your-world/z4k2kmn - What did David Attenborough do for us?

https://greece.mrdonn.org/athensdemocracy.html - Sticky Knowledge History

Geography: Would you live on a mountain?

Advantages of living on a mountain	Disadvantages of living on a mountain

History: Kinder Scout Trespass 1932

At the time of the Trespass in 1932, large parts of the English countryside had been closed off to the public and had become private land for wealthy landowners. Previously, the countryside had been open to all people to enjoy walks and fresh air out of the smoky cities. Many people also grazed their animals on the hills and relied on the land to survive and make a living.

In 1932, after repeated attempts in parliament to return the land to the public had failed, a group of people came up with the idea of a mass trespass of Kinder Scout.

The trespassers gathered at an old quarry a short distance away in the direction of the open moors. They arrived there at a route which police cars could not reach. In the quarry, Rothman, one of the leaders, addressed hundreds of ramblers ready for confrontation.

Many years after the protest Rothman described the moment when he clambered up to speak to the crowd in 1932:

"There were hundreds of young men and women, lads and girls, in their picturesque rambling gear: shorts of every length and colour, flannels and breeches, even overalls, vivid colours and drab khaki … multi-coloured sweaters and pullovers, army packs and rucksacks of every size and shape."

The plan was for the trespassers to head northwards past the Kinder Reservoir, walking down an area which had right-of-way area up to William Clough, a peak which offered stunning views over Manchester and Cheshire. The ramblers would then break off to charge up the prohibited Kinder moorlands.

Once they reached William Clough, two piercing whistles from the trespassers sounded. By then, the skyline was riddled with a large number of gamekeepers, many armed with large sticks. Following a third whistle, the trespassers began running up the hill towards those protecting private property. Brief but violent scuffles ensued between the ramblers and gamekeepers, in which the trespassers emerged victorious; running through prohibited land together, singing "The Red Flag" and "The Internationale," they met fellow ramblers from Sheffield on the "other side" who had succeeded in reaching the plateau.

While the protest didn't change things immediately and there were even some arrests of protestors it eventually led to the National Parks legislation in 1949 and helped to pave the way for the start of the famous Pennine Way walk. The protest also made people look much more closely at how access to land should be shared.

The National Trust have created a trail so that ramblers can walk in the footsteps of the trespassers and enjoy what others fought so hard for.

Each year a combination of wardens and rangers from both The National Trust and the Peak District National Park Authority hold a walking event to mark the anniversary of the trespass.

A commemorative plaque marks the start of the trespass at Bowden Bridge quarry near Hayfield, now a popular area for ramblers. It was unveiled in April 1982 by Benny Rothman (then aged 70) during a rally to mark the 50th anniversary.

MAKE YOUR OWN...

Pan con tomate y aceite

What is pan con tomate y aceite?

Pan con tomate y aceite is a simple Spanish dish of toasted bread topped with tomatoes, oil, garlic, and salt. It is often eaten at breakfast (**desayuno**) or as a mid-morning snack (**almuerzo**).

Important Note:
This recipe uses a knife so make sure you ask an adult to help you.

Ingredients:

- 2 tomatoes (**tomates**)
- 1 ciabatta or baguette loaf (**pan**)
- 1 peeled clove of garlic (**ajo**)
- extra-virgin olive oil (**aceite de oliva extra virgen**)
- salt (**sal**) for seasoning

Method:

1. Cut (**corta**) the tomatoes in half (**por la mitad**) and grate (**rallar**) them, throwing away the leftover skin.

2. Season the pulp (**pulpa**) with a sprinkle of salt.

3. **Get an adult** to cut the bread (**un pan**) into thin slices.

4. Lightly toast them.

5. Once toasted and cooled slightly, pour (**verter**) over a little olive oil and rub (**frotar**) the garlic into each slice.

6. Spoon (**cucharear**) the tomato mixture onto the bread and enjoy (**disfrutar**).

English Grammar: Relative clause or embedded clause?

Relative Clauses and Relative Pronouns

Max was making a clay sculpture.
He loved art lessons.

The second sentence adds some **extra information** to the first sentence so we can turn it into a **relative clause**, like this:

Max, who loved art lessons, was making a clay sculpture.

'who' is a **relative pronoun** so this clause of extra information is called a **relative clause**.

As this is extra, non-essential (non-restrictive) information we put the clause between **commas**.

Relative Pronouns

Max was making a clay sculpture.
He loved art lessons.

main clause

Max, who loved art lessons, was making a clay sculpture.

relative pronoun   relative clause

A **relative pronoun** is usually used at the **beginning** of a **relative clause**.

A relative pronoun refers back to an earlier-mentioned **noun** or **pronoun** (in this case, Max).

Other relative pronouns are: **that, who, whom, whose, which**.

Embedded Clauses

Luke, as soon as he heard the news, rushed to the hospital.

This is **not** a **relative clause** because it doesn't start with a **relative pronoun**.

It can still be called an **embedded clause** as it adds additional detail in the middle of the main clause.

Can you decide if the clause in the next box is a relative embedded clause or just an embedded clause?

Relative Embedded Clause or Embedded Clause?

Reece, even though he hated films, went to the cinema.

It's an embedded clause!

This is just an **embedded clause** as it does not start with a relative pronoun.

English Grammar: Using commas for embedded clauses
Look at the examples below and then rewrite the sentences to include an embedded clause with commas

When you first start to use paired commas it can be helpful to start the embedded clause with the words:

Where: The city of New York, where you can see the famous Statue of Liberty, is an amazing place to visit.

Who: Mrs. Smith, who was the reception teacher, was asked to take the whole-school assembly.

Which: The city of London, which was where they first met, was the place they had chosen to get married.

When: Many years ago, when my parents were young, the Beatles were a very popular band.

1. The boy could play the piano.

_____

2. The beach was hotter than ever.

_____

3. The ball flew through the air.

_____

4. The music gave me a headache.

_____

5. The old lady waited for a taxi.

_____

6. The bus went down the street.

_____

Sir David Attenborough

Sir David Attenborough is one of Britain's most famous and best loved TV presenters. He is a natural historian who has introduced generations of people to a variety of unknown species of animals from around the world. He has a distinctive and widely recognisable narrator's voice which people have come to both imitate and love.

David Frederick Attenborough was born 8th May 1926 in Isleworth, West London (the same year as Queen Elizabeth II). He had two brothers, the eldest of whom became an Academy Award-winning actor and director (Richard Attenborough). David and his brothers were raised on the campus of University College in Leicester where their father was a university principal and writer.

Attenborough developed a fascination of the natural world and animals and by the age of seven, had gathered an impressive collection of bird eggs and fossils. Once he had finished school, David was awarded with a scholarship to study the natural sciences at the University of Cambridge. After graduating however, David was conscripted to serve for two years in the Royal Navy. He spent two years on a ship in North Wales and did not get to see the world as he had hoped.

In 1950, Attenborough married Jane Oriel and they had two children together. Sadly, Jane died in 1997 from a brain haemorrhage.

After the war ended, Attenborough returned to London and started working as an editor for an educational publisher. Shortly after, he began a training program with the BBC and in 1952, began working as a producer for the television station. This was the beginning of a remarkable career in television.

Interesting Fact

When David Attenborough started working at the BBC, he had only ever seen one television programme. He didn't even own a TV!

To begin with, however, it was not all plain sailing at the BBC. There were few programmes devoted to the natural sciences and those that involved animals did not film them in their natural environment. This troubled Attenborough and so in 1954, he launched a series titled 'Zoo Quest'. 'Zoo Quest' filmed animals both in captivity and the wild, enabling viewers to see animals in their natural habitat in sometimes far off and exotic locations. The show was incredibly successful.

After leaving the BBC to study social anthropology at the London School of Economics, Attenborough was asked to return in 1965 when BBC Two was created. Here, he worked as both controller and director of programming and continued to bring viewers educational and fascinating programmes about nature and history. However, in order to follow his dreams into the wild, Attenborough resigned from the BBC once again in 1972.

Attenborough began to write and produce TV series' independently as a freelancer. His most successful of all was his program 'Life on Earth' which first aired in 1976. 'Life on Earth' was a series of 96 episodes that explored wildlife and the evolution of nature around the world. At the height of its popularity, around 500 million people tuned in to watch the show.

More recently, Attenborough's 'Planet Earth' has become the biggest wildlife documentary ever made and was the first show to air in HD (High Definition) on the BBC.

Attenborough has gained many awards throughout his career. He has at least 31 honorary degrees from British universities, has won several BAFTAs and Emmys and in 1985, he received a knighthood from the Queen, earning the title of Sir David Attenborough. Most fittingly of all perhaps is that Sir David Attenborough has several species of plants, insects and birds named after him such as the Nepenthes attenboroughii – a giant carnivorous plant that devours animals such as rats.

Sir David Attenborough is truly a great Briton and has made huge and significant contributions to our understanding of nature and the need to care for it. Despite being in his mid-nineties, Attenborough is a leading figure in the fight against plastic pollution, deforestation and other issues that are having an irrevocably damaging impact on our planet.

The question is, are we happy to suppose that our grandchildren may never be able to see an elephant except in a picture book?

Questions:

1. What career did David's brother, Richard Attenborough, pursue?

2. What sad event occurred in Attenborough's life in 1997?

3. When did Attenborough first start working for the BBC?

4. What difficulties did Attenborough face when he first started working for the BBC?

5. What did Attenborough study at the London School of Economics?

6. Explain what freelance work Attenborough did.

7. If you were Sir David Attenborough, which of your achievements would you be most proud of **and why?**

8. Explain what you think Attenborough meant when he said, "The question is, are we happy to suppose that our grandchildren may never be able to see an elephant except in a picture book?"

History Sticky Knowledge – Who could vote in Ancient Greece? Why?Why not?

8 year old male Athenian

36 year old male Athenian

40 year old female Athenian

53 year old male metic

15 year old female Athenian

23 year old Athenian slave

28 year old male Athenian

20 year old female metic

English Home Learning Y6

06/07/2020 –
Introduction.
Each week you will receive a set of English tasks. You should aim to complete one each day. Spending about 30 minutes on the picture and question time task, 45 minutes on writing and at least 20 minutes on grammar and spelling.
It is fine for you to ask for help from parents, siblings or your teacher through teams.
If you love reading and writing and want more of a challenge you can keep writing stories based on your own ideas or other books you have read.
You can explore
 www.lovereading4kids.co.uk or www.newsela.com to find more extracts to read and write about.

Trapped

Monday 6th July 2020 Question Time
Year 6 – Trapped – Day 1

Question time

Do you prefer summer or winter?

Is it easier to keep yourself warm in a cold place, or keep yourself cold in a warm place?

How would you feel if you could only move your eyes? What would life be like?

Could you think of a way to communicate if you could only use your eyes?

Tuesday 7th July 2020   Sick Sentences
Year 6 – Trapped – Day 2

Sick sentences

These sentences are 'sick' and need help to get better. Can you help?

The man was scared. He tried to move but could not. His mind raced.

Sentence challenge

Can you write a sentence containing a relative clause?

E.G. The figure, who found himself completely trapped, started to panic.

It splits the main clause.

The clause begins with 'who', 'which' or 'with'.

It must supply an extra bit of information to the sentence.

Commas should surround the clause.

Recap relative clauses here
https://www.bbc.co.uk/bitesize/topics/zwwp8mn/articles/zsrt4qt

Thursday 9th July 2020 Story Starter
Year 6 – Trapped– Day 4

Story starter

His eyes blinked. They were the only part of his body that he could move: he was entombed in ice, and had been for some time. The person that had put him here was far away by now.

Glancing around in desperation he tried to move his aching body, but it was no good - there didn't seem to be a way out. Time was slipping away… He had to escape. If he didn't, then darkness would cover the world…

bargain   bruise   category

cemetery   committee   communicate

community   competition   conscience

conscious   controversy   convenience

Introducing the ratio symbol

White Rose Maths

1 The ratios show shaded parts to non-shaded parts.

Match the ratios, statements and bar models.

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

2

Mo: The ratio of purple to yellow is 5 : 4

Alex: It is 4 : 5

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.
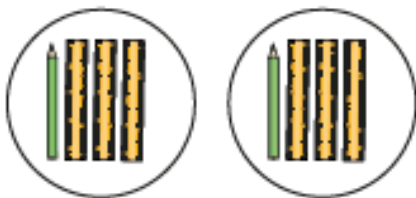
a) What is the ratio of pencils to rulers? ☐ : ☐

b) Here are some more rulers and pencils.

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

Ron

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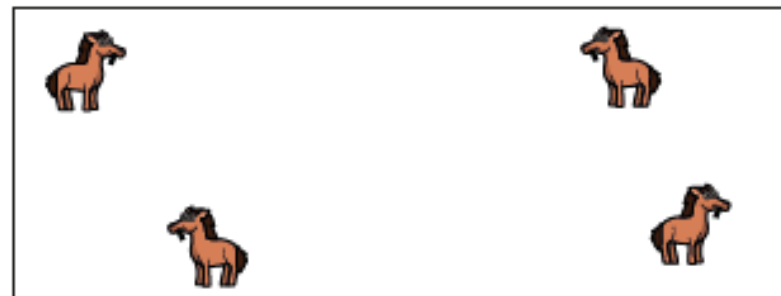
7 Shade squares so that the ratio of shaded to non-shaded squares is $1 : 4$

a)   b)   c)
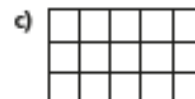
8 A box contains dark, white and milk chocolates.

$\frac{3}{8}$ 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) $3 : 5$

_____

Calculating ratio

White Rose Maths

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?

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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.

a) green [ ][ ][ ][ ] } 28   _____
    blue   [ ][ ][ ]   _____

b)   28
    green [ ][ ][ ][ ]   _____
    blue   [ ][ ][ ]   _____

c) green [ ][ ][ ][ ]   _____
    blue   [ ][ ][ ] ↔28   _____
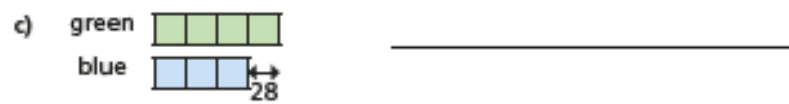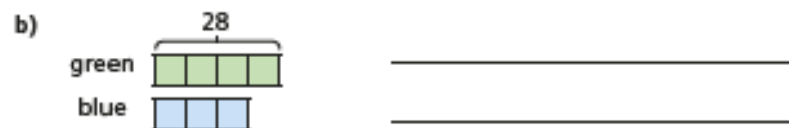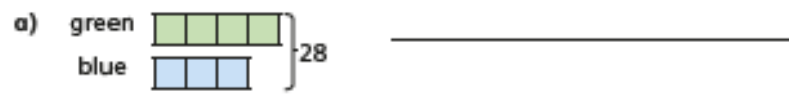
Compare answers with a partner.

What is the same and what is different?
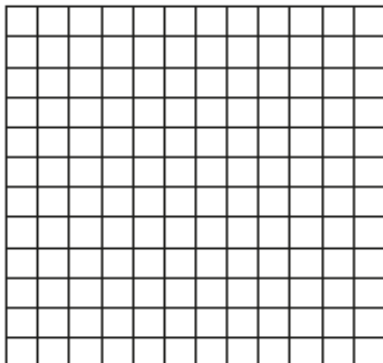
Using scale factors

1 a) Here is a rectangle.
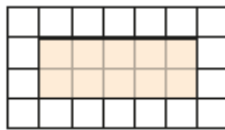
Draw another rectangle where each side is twice as big.
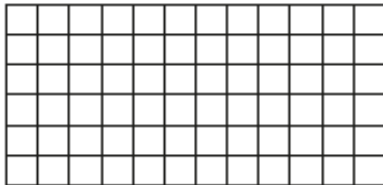
b) Here is a square.
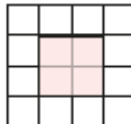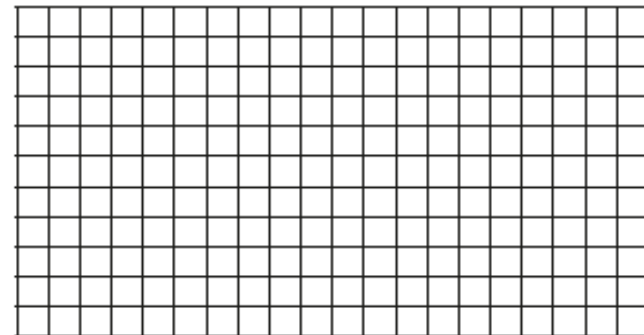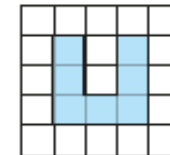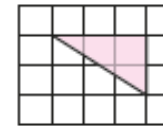
Draw another square where each side is 4 times as big.

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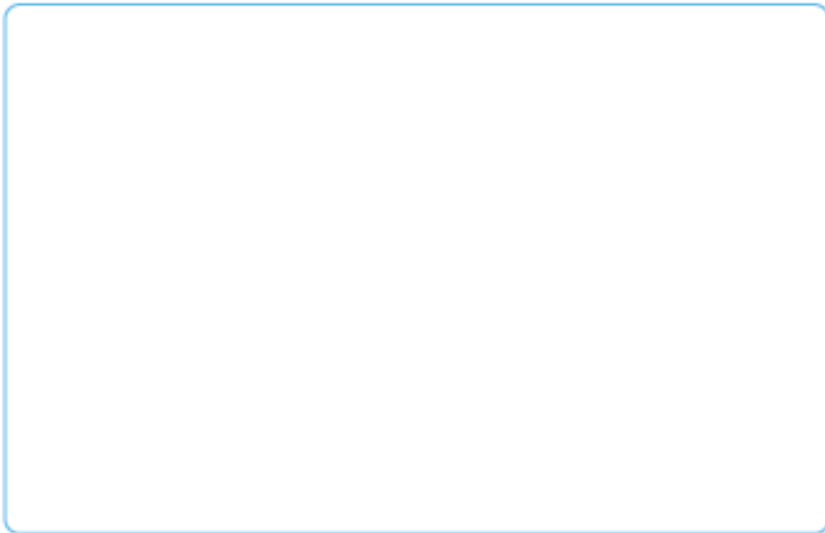
_____

_____

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 ☐
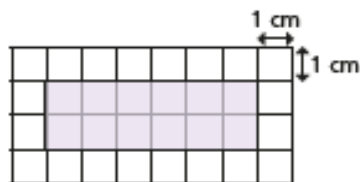
© White Rose Maths 2019

4 Here is a rectangle.

a) Measure the side lengths of the rectangle and label them on the diagram.

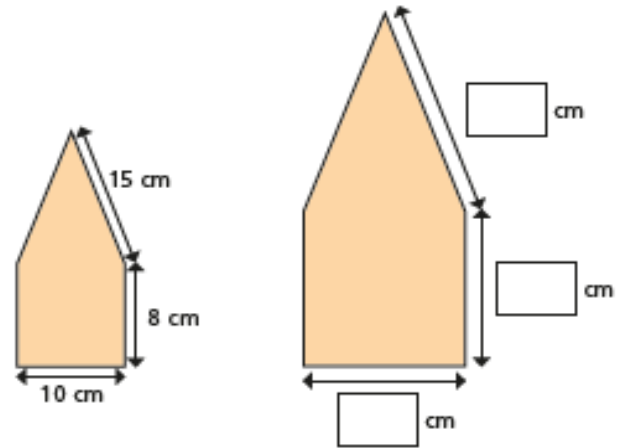b) Enlarge the rectangle by a scale factor of 3 and label the side lengths.

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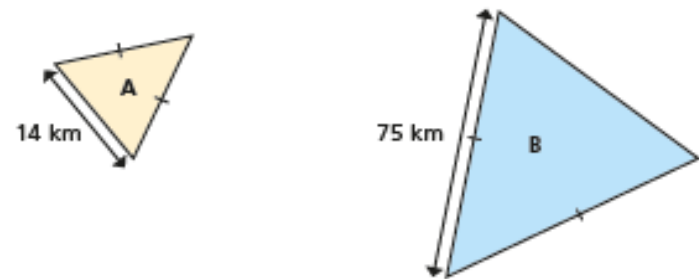
What is the perimeter of the new shape?

1 cm

1 cm

[ ] cm

6 The shape has been enlarged by a scale factor of $1\frac{1}{2}$

Fill in the dimensions of the new shape.

15 cm

8 cm

10 cm

[ ] cm

[ ] cm

[ ] cm

7 Triangle A has been enlarged by a scale factor of 5 to make triangle B.

Find the perimeter of each triangle.

A

14 km

75 km

B

perimeter of A = [ ]   perimeter of B = [ ]

Ratio and proportion problems

1 Whitney buys 6 cans of lemonade for £3

a) How much do 12 cans cost?

b) How much do 3 cans cost?

c) How much do 15 cans cost?

2 The ratio of red to green grapes in a bowl is 3 : 1

a) Explain what this means.

_____

_____

b) There are 12 more red grapes than green grapes.

What is the total number of grapes in the bowl?

3 Amir is making some chocolate chip biscuits.

He has this list of ingredients to make 6 biscuits.

> **Chocolate chip biscuits (makes 6)**
>
> 120 g butter
> 72 g sugar
> 180 g plain flour
> 60 g chocolate chips

a) How much of each ingredient does Amir need to make 2 biscuits?

butter ☐ g   plain flour ☐ g

sugar ☐ g   chocolate chips ☐ g

b) How much of each ingredient does Amir need to make 10 biscuits?

butter ☐ g   plain flour ☐ g

sugar ☐ g   chocolate chips ☐ g

c) Amir has 240 g of chocolate chips.

What is the maximum number of biscuits he can make?

4 Dexter has some 20p and 50p coins in a jar.

For every three 20p coins he has one 50p coin.

There are 12 coins in the jar in total.

How much money is in the jar?

5 A drink is made using 3 parts orange juice to 2 parts lemonade.

Esther makes 1.2 litres of this drink.

How much orange juice does she need?

ml

6 Two shops sell the same cereal but in different-sized boxes.

Shop A	Shop B
500 g of cornflakes	750 g of cornflakes
£2.10	£3.30

Which shop is better value for money?   Shop _____

Explain why.

7 Dora draws two similar rectangles.

My larger rectangle is 4 times the size of the smaller one.

The perimeter of the larger rectangle is 48 cm.

The length and width of both rectangles are even numbers.

What is the largest possible area for the small rectangle?

cm²

8 Aisha has two boxes of sweets.

- In the first box, the ratio of red sweets to green sweets is 3:1
- In the second box, for every 2 orange sweets there are 3 yellow sweets.
- There is the same number of sweets in each box.
- There are 12 yellow sweets in the second box.

How many sweets are in the first box?

Introduce angles

1 Match each angle to its picture and number of right angles.

90°		1 right angle
180°		4 right angles
270°		3 right angles
360°		2 right angles

2 Complete the sentences.

There is [ ] right angle in a quarter turn.

A quarter turn is [ ] degrees.

There are [ ] right angles in a half turn.

A half turn is [ ] degrees.

There are [ ] right angles in a three-quarter turn.

A three-quarter turn is [ ] degrees.

There are [ ] right angles in a full turn.

A full turn is [ ] degrees.

3 a) Jack is facing the direction that the arrow is pointing.

Jack ⟶

He turns a half turn.

Draw on the diagram to show the direction he is now facing and the angle he turned through.

How many degrees did he turn through? [ ]

b) Dora is facing the direction that the arrow is pointing.

⟵ Dora

She turns a quarter turn clockwise.

Draw on the diagram to show the direction she is now facing and the angle she turned through.

How many degrees did she turn through? [ ]

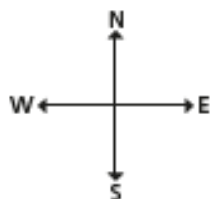c) Teddy is facing the direction that the arrow is pointing.

↑
Teddy

He turns a three-quarter turn.

Draw on the diagram to show the two directions he could now be facing and the angles he could have turned through.

How many degrees did Teddy turn through? [ ]

4 Here is a compass.

a) Huan is facing north.

He turns half a turn.

What direction is he facing now? _____

b) Whitney is facing east.

She turns 180°.

What direction is she facing now? _____

c) Alex is facing west.

She turns a quarter turn clockwise.

What direction is she facing now? _____

d) Amir is facing west.
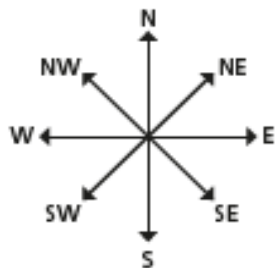
He turns 90° anticlockwise.

What direction is he facing now? _____

e) Kim is facing south.

What angle does she need to turn through to face east?

_____

Is there more than one answer?

5 Here is another compass.

a) Dexter is facing north-east.

He turns half a turn.

What direction is he facing now? _____

b) Esther is facing south-west.

She turns 270° anticlockwise.

What direction is she facing now? _____

c) Mo is facing south-west.

He turns, and he is still facing south-west.

How many degrees did he turn through? ☐

6 Complete the statements.

a) $\frac{1}{2}$ of a full turn = ☐

b) $\frac{1}{4}$ of a full turn = ☐

c) $\frac{3}{4}$ of a full turn = ☐

d) $1\frac{1}{4}$ turns = ☐

e) $5\frac{3}{4}$ turns = ☐

7

I did $2\frac{1}{3}$ turns.

How many degrees did Eva turn through? ☐

8 Nijah looks at the clock at the start and at the end of her maths lesson.

start   end

How many degrees did the minute hand turn through during the lesson? ☐