Year 6 - Home Learning Project - Week 12 - 22/06/2020: Perilous Peaks

Daily activities:

English worksheet and tasks	Maths	Reading Plus	TTRS and Numbots	PE session	A Topic activity from the choices below.
Read 'Monstrous Devices by Damien Love' 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 new topic of **Perilous Peaks.**

Geography: Just how high is high?

There are at least 109 mountains on Earth with elevations greater than 7,200 metres above sea level! The vast majority of these mountains are located on the edge of the Indian and Eurasian continental plates.

Research the 7 highest peaks in world:

- **Mount Everest**
- **Aconcagua**
- **Mount McKinley**
- **Kilimanjaro**
- **Mont Blanc**
- **Vinson Massif**
- **Mount Kosciusko**

Find out how high each peak is in **m** and where in the world they are located.

After that, find out what the highest mountains are in the **UK** and **locate them** on the UK map below. **Label** on the map the mountain's **name**, **height in m** and **place** where they are located.

Art: Landscape – Post Impressionism

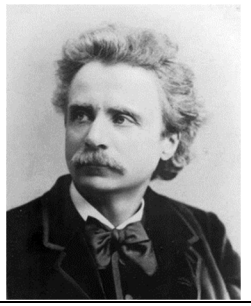
Post impressionism is an art movement that developed in the 1890s. This kind of art uses 'real life' subject matters such as landscapes, however the artists demonstrate their emotions and use unnatural colours in some ways. **Vincent Van Gough** created a piece of post impressionism called Wheatfield with Mountains in 1889. **Take a look** at this video to explore the type of art more: https://www.youtube.com/watch?v=eV_ZntDBlW4

Over the coming weeks you are going to be producing a piece of **post impressionism** of a **landscape**. This week we would like you to explore the type of art and pick a mountain landscape which you would like to depict. Choose one of you mountains you have researched and explore its landscape. **What colours are there? What shapes can you see? How do you feel looking at that particular landscape?**

Music: In the Hall of the Mountain King

Last week you we listened to 'In the Hall of the Mountain King' by Greig. This week we're going to look a bit more closely at the composer. (Information below)

Listen again to the piece of music on BBC ten pieces website. Edvard Grieg knew how to tell a story through music. Think about how he composed his music. Close your eyes and listen to the music. How did he make it sound as if the trolls were chasing Peer? What did he do to the speed of the music? Think about the instruments he chose to create his scene. What were they? If you were the composer, would you do this differently? When you have listened to the piece complete the task below.



Science: Famous Scientist - Dr.Jane Goodall

Dr Jane Goodall is a British ethologist (someone who studies animal behaviour) and conservationist. She is famous for her world expertise on chimpanzees which she has studied in the wild for over 60 years.

Task 1: The Aimhi website has a fantastic live interview with Jane which you can watch here. The interview will explore why Dr. Goodall chose her career, how she studied chimpanzees for years and much more. If you had a chance to ask her a question what would it be?

Task 2: Read through the information about Jane found below. Then complete the fact or fiction page.

Task 3: Read through the information about endangered chimpanzees and complete an advert to fundraise for the Jane Goodall charity (there's a prompt sheet below to help you with ideas and vocabulary)

Computing: Go on a photo walk

Pick a colour or letter of the day and take photos of things that are that colour or start with that letter. Then put them all together in a collage or video. Try to make a rainbow or complete the alphabet! Can you challenge yourself and add audio too?

English: Grammar

Complete the 'Lockdown SPaG-hetti' grammar sheet below to recap on nouns, adjectives, clauses, modal verbs and editing.

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English: Writing

Debate whether graffiti is art or just a mess! Once you have Developed opinions and points of view for both sides, write a discussion text about it. Look at some of the work by the graffiti artist 'Banksy' to help your discussion. There are also further questions below to consider.

Sticky Knowledge (remembering our previous learning):

History: Religion in Ancient Greece

During our ancient Greek Topic we learnt that the people of Greece believed in many gods and goddesses. For example the citizens of Athens prayed to their goddess Athena for guidance and protection. Recap on the different Gods and Goddesses on BBC National Geographic and History for Kids then choose one to write an information poster about. You should include a clear title, an introductory paragraph about them, a picture and some key facts.

Geography: Layers of the Rainforest

Can you label the different layers of the Rainforest before time runs out? Try your luck at this Purple Mash Game.

Science: Explorify Odd One Out

Look at the three images above of a tooth, a heart and intestines. Can you make a list of as many similarities and differences between them as you can? For example, think about appearance, what they do (their function in our bodies) and where they might be found in our bodies.

If you had to choose one as the odd one out which would it be? Explain why giving a clear reason.

(If you're stuck and not sure what these parts do in our bodies take a look below at some extra information for sticky knowledge)

Website links mentioned above:

http://www.primaryhomeworkhelp.co.uk/mountains/tallest.htm - Tallest mountain information

https://www.youtube.com/watch?v=eV_ZntDBlW4 – Post impressionism art

https://www.bbc.co.uk/teach/ten-pieces/KS2-edvard-grieg-in-the-hall-of-the-mountain-king-from-peer-gynt/z7nf3k7 - In the Hall of the Mountain King

https://www.aimhi.co/paststreams - AimHi website Jane Goodall interview

https://www.bbc.co.uk/bitesize/topics/z87tn39/articles/zgt7mp3 - BBC Greek Gods

https://www.natgeokids.com/uk/discover/history/greece/greek-gods/ - National Geographic Greek Gods

https://www.historyforkids.net/ancient-greek-gods.html - History for Kids Greek Gods

Geography: UK map to locate mountains

Edvard Grieg

Music: In the Hall of the Mountain King

In the Hall of the Mountain King

from *Peer Gynt Suite No. 1*

Edvard Grieg
Born: June 15, 1843
Died: September 4, 1907

Edvard Grieg was born in Bergen, Norway. His first teacher was his mother. She was a wonderful pianist. Because Edvard was also a very good musician, at the age of 15 he was sent to study at the Leipzig Conservatory in Germany. After that, he traveled to Denmark. There, Grieg met another Norwegian composer who taught him about Norwegian folk music.

Grieg began performing as a pianist all over Europe, but every summer he went home to his cottage in Norway to compose. Grieg soon became the leader of a group of artists who wanted Norwegian music, art and theater to become more popular. Many of his songs are written to sound like folk songs from his home country. He also wrote a lot of music for the piano.

Grieg is best known for the incidental music he wrote for Henrik Ibsen's play, *Peer Gynt*. Incidental music provides background or atmosphere for the action in a play. *Peer Gynt* is a tale about one man's epic journey to the four corners of the globe. Grieg's "In the Hall of the Mountain King" describes Peer Gynt's adventure in the underground Kingdom of the Trolls. Can you hear the trolls creeping up on Peer? They are coming faster and faster! Whew...luckily, Peer Gynt gets away from the trolls by the skin of his teeth.

You Choose

Pretend you are Edvard Grieg and want to tell a story with music. What instrument would you match with the characters below? You can use an instrument from this list or think of one of your own.

Triangle Flute Violin Glockenspiel Cymbals Trumpet Viola
Bass Drum Tuba Piano Trombone Chimes Clarinet Oboe

Science Task 2 information:

Who is Jane Goodall?

Jane Goodall is a British scientist who has studied chimpanzees for many years.

She is considered to be the world expert on chimpanzees and their behaviour.

Goodall was born in 1934 in London. When she was a child, her father gave her a chimpanzee toy, which began her lifelong love of animals.

Jane's Work With Chimpanzees

In 1960, Goodall was appointed as a chimpanzee researcher by a famous archaeologist called Louis Leakey. Leakey sent her to Gombe Stream National Park, in what is now called Tanzania in Africa, to observe the chimpanzee troop living there.

Tanzania was known as Tanganyika when Jane Goodall went to study the chimpanzees there.

Jane's Work With Chimpanzees

Jane began to study the Kasakela chimpanzee community. She used unusual methods, such as giving the chimpanzees names. At that time, scientists working with animals would use numbers to identify the animals, so they didn't get too attached. Goodall's methods allowed her to observe the chimpanzees' personalities and emotions.

Observing patiently over a number of years, Goodall won the trust of the chimpanzees, and noticed new and interesting things about the chimpanzees' behaviour.

Jane's Work With Chimpanzees

She found that the chimpanzees had strong family bonds that would last for the whole of the chimpanzees' lives. She observed family members hugging, kissing, patting each other on the back, and even tickling each other!

Goodall became familiar with several families of chimpanzees, and watched new family members be born. She saw the life cycle of the chimpanzees in action.

Science Task 2 Fact or fiction: Draw lines from the statements on the lft about Jane Goodall to 'Fact or Fiction'. Then add your own statements in the two blank boxes. Ask someone in your family to decide if your statement are fact or fiction.

Jane Goodall is an African scientist who studied chimpanzees.	
Goodall studied chimpanzees living in the Gombe National Park in Tanzania.	Fact
Goodall used numbers to identify the chimpanzees that she studied.	
	Fiction
Her interest in animals began in childhood started when her father gave her a toy chimpanzee.	
She found out that the chimpanzees had very strong family bonds.	

Chimpanzees in Danger

100 years ago there were around 1 million chimpanzees in Africa. Scientists believe that there are now fewer than 200 000 left in the wild. The species has already disappeared from 4 African countries, and chimpanzees are nearing extinction in several other countries.

What do you think is causing them to be endangered?

Asking for Help

Chimpanzees do still live in Tanzania, and the Gombe Stream chimpanzees are still living in the area where they were originally observed by Jane Goodall.

The Jane Goodall Institute was set up by Goodall to protect the wild chimpanzees that are left in Africa.

The Institute supports sanctuaries and public education programmes to protect chimpanzees in the wild. It raises money for these programmes and developments through donations from the public.

Science Task 3:

Chimpanzees in Danger

There are many threats to the survival of the chimpanzee species:

Poachers hunt and kill chimpanzees for bush meat, which is sold to people living in cities.

Wars and conflict in the areas in which the chimpanzees live also cause habitat loss and can result in deaths of chimpanzees.

Baby chimpanzees are taken illegally to be exotic pets.

Chimpanzees lose their habitats when forests are cut down for timber or to clear space for farming.

Diseases can affect chimpanzees, and can drastically reduce their population.

All these threats prevent the chimpanzee life cycle from continuing in its normal way. This will eventually lead to the species becoming extinct.

Asking for Help

Imagine that you have been asked to create an advert to ask people to help the Jane Goodall Institute save endangered chimpanzees by donating some money.

In your advert, you should tell people about Jane Goodall and why chimpanzees are endangered.

You can choose what your advert should look like. For example you could design a poster or leaflet. Use the Advert Activity Sheet to plan your ideas.

Science Task 3: Advert planning

What do you want people to know about Jane Goodall? Think about who she is, where she worked and what she observed.

What will you tell people about chimpanzees and why they are endangered? Think about how they live and the threats they face.

How will you ask people to donate money? Think about words that will persuade people to help.

Use these words and phrases to help you.

British scientist world expert Gombe Tanzania Africa names personalities

family chimpanzees species extinct endangered forests meat pets life cycle

Science Sticky Knowledge: Explorify Odd One Out - additional information.

The images are a tooth, a heart and intestines.

Though teeth aren't organs they are important for digestion. Teeth start the process of breaking up food into smaller pieces. The tooth pictured is a molar, which helps chew and grind up food. These small pieces of food can be swallowed so they can pass down the oesophagus and enter the stomach.

The heart pumps blood around the body, which carries the nutrients that are produced during digestion to the places where they are needed e.g. for energy and building new tissues. It is part of the circulatory system.

The intestines are made up of the small and large intestines and form part of the digestive system. During digestion, food is broken up into soluble nutrients and moves into the blood through the walls of the small intestine. In the large intestine, water is removed from the remaining food.

Lockdown SPaG-hetti!

Underline the nouns and circle the adjectives in the noun phrases below. Can you label the other words as well and work out who they're about?

1. the man in the red outfit

2. a happy creature with a red, shiny nose

3. this spiky, green addition to the excited house

How many words can you find using the letters in:

D E C O R A T I O N S

They only count if you can say which word class each one belongs to.

eg CAT	noun

Identify the main, subordinate and relative clauses – but not the Santa Clauses! (Use 3 different colours and create a key)

1. The reindeer were very tired because they had been working all night.

2. After Father Christmas had delivered all the presents, he was exhausted.

3. The elves, who had wrapped all the presents, were the first to go to sleep.

Father Christmas was in a rush (as normal) and he made a few mistakes when he wrote in his diary. Can you edit it for him?

Dear dairy,

What a night! i did'nt think that i was goin to get all the presents deliverd – but we did. The reindeer where amazing and kept going until every house had bean visited. Wos it cold. Yes it was freezing but i hardly noticed because i did'nt have time too think about it. Wen we finaly got home i realised exactly how cold my toes where. Im warming them up know by the fire as i am writing this.

Circle all the modal verbs in one colour and the other verbs in another. If they are neither, leave them blank.

jump can put could reindeer walk may mix will present

English: Writing

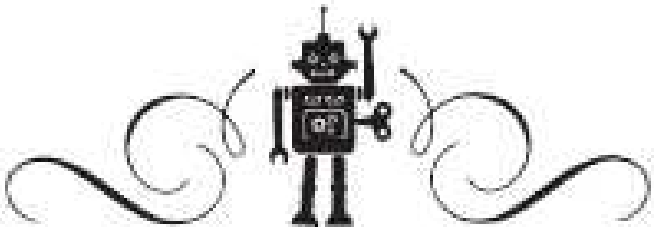
Art or just a mess?

Debate whether graffiti is art or just a mess! Once you have developed opinions and points of view for both sides, write a discussion text about it. Look at some of the work by the graffiti artist 'Banksy' to help your discussion.

Consider the following questions:

1. Is graffiti 'art' or just a mess?
2. Who does graffiti and why do they do it?
3. If you saw someone doing graffiti near your home, how would you feel about it and why?
4. When and where do you think most graffiti is done?
5. Does the location of the graffiti determine whether it is considered art or vandalism?
6. Can you think of a time when graffiti could be considered antisocial?
7. Who was the first graffiti artist to be considered an 'artist'?
8. How might the materials used to perform graffiti have changed over history?
9. What are the different types of graffiti?
10. How have the types of graffiti have changed throughout history?

Read the text below then complete the tasks. Remember to send your work to Miss Harris on Teams so she can give you feedback.



A PROLOGUE IN PRAGUE

SNOW IS FALLING on the city of Prague.

Soft white against a sharp black skyline, it dances around the castle spires and wisps past the patient statues of the church of St. Nicholas. It flurries over fast-food restaurants' glowing signs, drifts down on cobblestones, tarmac and tramlines. Old women in headscarves shiver and street vendors selling hot sausages stamp their feet in Wenceslas Square. Bleary young tourists' teeth chatter outside bars in the Old Town.

A tall man and a small girl stalk through the snow. The man wears a long black coat and a homburg hat. He clutches a cane. The girl's black coat reaches her ankles, where purple-and-black-striped socks disappear inside heavy black boots. She looks nine or ten, with a pale, round face framed by long black hair.

They cut briskly across the Old Town Square: past grumbling workmen struggling to erect a huge, eighty-foot Christmas

tree; past the house where a famous writer lived an unhappy life long ago; past an ancient cemetery crammed with graves like a smashed mouth filled with broken teeth.

For each of the man's long strides, the girl must take three, yet she easily matches his angry pace. The city grows older around them as they walk. The light is fading, the day turning blue beneath a heavy slate sky. The snow is beginning to lie. It crumps under their feet. It frosts her hair like icing sugar. It gathers in the nooks and crannies of the strange metal straps that encase each of his boot-heels like heavy surgical supports.

They come eventually to a narrow street, barely more than an alley between ageing buildings, dark, save for a single yellowy light burning in a shop window bearing a sign painted in cheerful red:

BECKMAN'S TOYS

Behind the words, heavy red curtains frame a dusty display. Monkeys wearing fez hats brandish cymbals. Ventriloquists' dummies leer secret smiles at blushing Victorian dolls. Black bats hang from black threads alongside ducks with propellers on their heads and wooden policemen with bright red noses. Machine guns and ray guns, farting cushions, furry spiders and fake bloody fingers.

A line of robots marches through this chaos. Tiny cowboys

and cavalrymen battle rubber dinosaurs at the feet of fat tin spaceships.

The man in the long black coat pushes open the door, ushering the girl in ahead. A bell actually rings, a pleasing old sound of polished brass in the musty dim as they step inside. Around them, the little shop is a cluttered cosmos of toys. Squadrons of fighter planes and hot air balloons swarm the ceiling. Sailboats and rocket ships patrol shelves. Teddy bears are crammed into corners with rocking horses and dogs on wheels. Bright things new and old, of plastic, lead and wood, fake fur and cheap metal.

When they are certain there is no one else in the shop, the girl flips the sign from OPEN to CLOSED. Snapping the lock, she stands with her back to the door and folds her arms.

The man strides to the counter, heading on towards the back room, when a figure emerges from in there, pushing through the rattling hanging beads holding scissors and a roll of brown tape. A small man with severely cropped grey hair and big, round glasses, thick lenses reflecting the light, shabbily dressed but for an incongruously bright-yellow-with-black-polka-dots silk scarf knotted at his throat. A torn-off strip of brown tape hangs from the end of his nose.

"Snow is falling," this little Beckman sings in a high burble, still frowning down at the tape in his hands. "Christmas is coming—"

Looking up to blink happily at his visitors, he stops abruptly.

The roll of tape drops from his hands. He swallows with difficulty.

"Eh . . ." He licks his lips. "Did you get him?"

The girl solemnly shakes her head. Pouting a frown that mockingly mirrors Beckman's own, she twists her knuckles at the corners of her eyes in a *boo-hoo* pantomime, before refolding her arms.

Beckman swallows again as the tall man leans across the counter.

"You had it."

"No. Please. I-I can explain," Beckman begins, backing away.

The man looms farther over him, reaching out a sharp, pale hand. Beckman flinches, grabs protectively at the scarf around his neck and lets out a girlish shriek – it could be the word *no* – as the man rips the tape from his nose. Beckman laughs, a nervous and treacly too-loud giggle. He pretends to relax as the tall man rubs the tape into a ball between his slender grey fingers and lets it drop.

"Tape," Beckman babbles. "On my nose. Always I'm putting it there. Forgetting. Packaging up a gift. A horse. Going to a little girl in Germany. Near my old hometown. A lovely little horsey. For a lovely little girl."

He tries a grin on the girl. It curdles and dies as she glares back. She picks a toy revolver from a shelf. Still unsmiling, she aims at him, pulls the trigger. Without a sound, a tiny flag unfurls from the snout bearing a single word: BANG.

"Now," Beckman stumbles on, faster. "Please. I can explain. Yes, you just have to believe me . . ." He trails off. In the toy shop silence, he has heard a small, distinct *click*.

Now the girl starts smiling.

"You *had* it," the tall man in black says once more. "And you let it *go*." He raises his arm again and there is something small and sharp, silvery and slivery in his hand, arcing down through the warm reddish air as all the monkeys and cowboys and ducks and dogs and dolls look on with their glass and painted eyes.

For the next few seconds, the sounds inside this toy shop are muffled and breathy, desperate, wet and horrid.

Outside, snow is falling on the city of Prague.

Lights are flickering on in the streets and squares and up in the mysterious windows of the high castle. White globe lamps glow along black bridges over the river, reflections restless in the cold, dark water.

The snow falls.

People hurry through the streets and it covers all their tracks.

Reading

On page 3:

1. The small man looks '*shabbily dressed*' except for one thing. What is it? (Write 1-2 full sentences)

On page 4:

1. Mockingly is closest in meaning to:

a) sadly b) sarcastically c) happily

2. Why does Beckman have tape on his nose? (2-3 full sentences)

On page 5:

1. What object that is '*sharp, silvery and slivery*' do you think is in the man's hands? +Why? (2-3 full sentences)

2. How do you think Beckman is feeling?

a) happy b) scared c) anxious d) upset

Writing

What do you think might happen next? **Write the next page of the story**. Remember to describe the one thing that happens next.

- ❑1 full page
- ❑Describe the one thing that happens next in detail
- ❑Words and phrases sound like the original story

Below are some suggested timings for each lesson:

Reading: 30 minutes (this includes time to re-read, look up unknown words and ask questions)

Writing - 45 minutes

Grammar - 5 minutes

Spelling - 10 minutes

How parents, carers or siblings can help:

- Read the extract aloud with you.

- Gather all the exciting and difficult words you want to find out about or use in your writing and put them on display to support your amazing writing.

- Help with ideas for planning your writing.

- Write a story at the same time as you. You could then compare your stories and give each other feedback. **(Remember: Be Kind, Be Specific, Be Helpful)**

Spelling

Practise each word. Choose two and write their definitions. Choose two to write in sentences.

secretary	sincere(ly)	sufficient
shoulder	soldier	suggest
signature	stomach	symbol

Grammar

Write two sentences for each word. First, use it as a noun. Then, use it as a verb.

stand watch play

Select the correct word for the sentence.

a) Zabeer didn't know **whether** / **weather** to go to the zoo or not.
b) Fiona saw the **cue** / **queue** and decided not to wait.
c) I tried to **steal** / **steel** my brother's last sweet: I failed.

Write an antonym for these words. Then write sentences using each of your words.

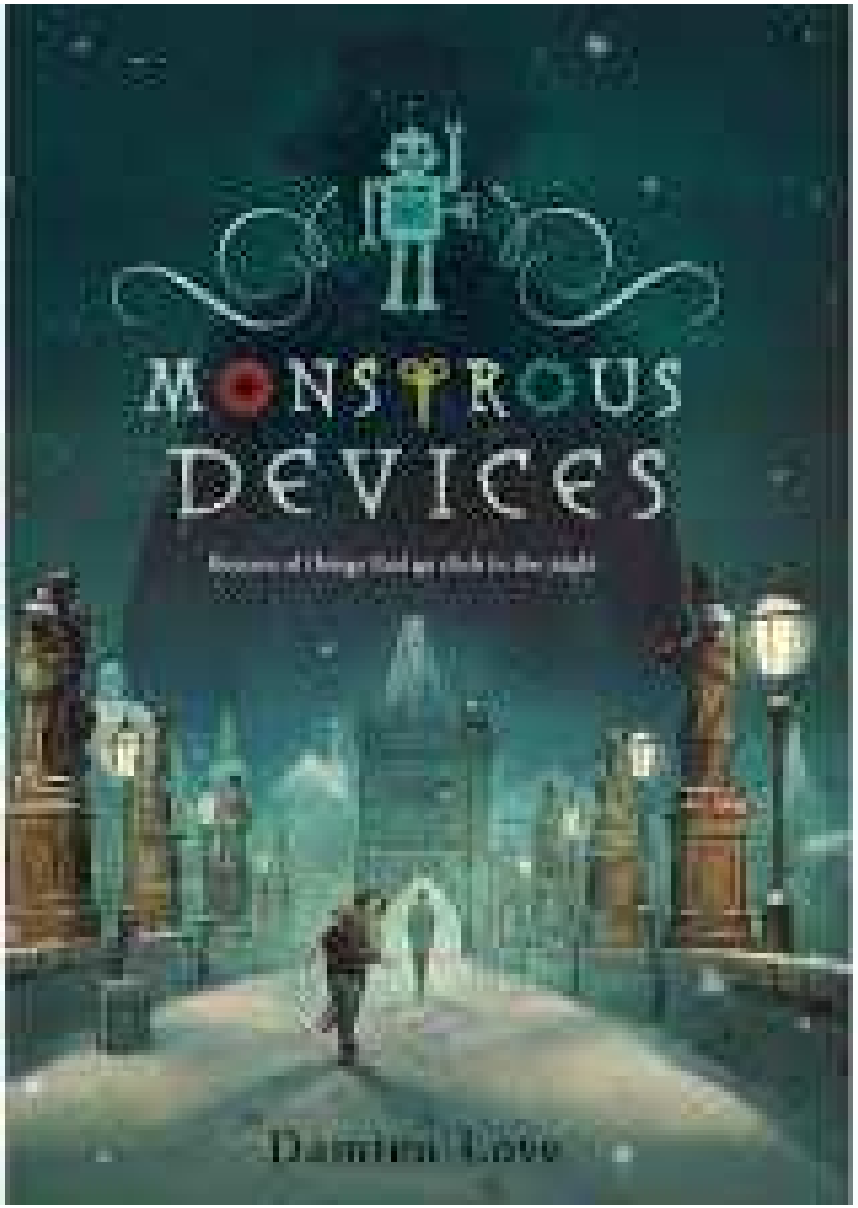
friend freezing ancient shimmering

Rewrite each sentence using contracted forms of the underlined words. Remember the correct punctuation.

a) You are in trouble and will not go out to play today.
b) Happily, they are now all safely back in their enclosure and are not able to escape again.

Insert relative clauses into these sentences. Use correct punctuation.

a) Shauna fed the cat.
b) Jacob cut the paper.



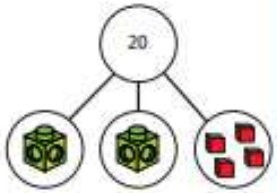
Year 6 Home Learning - Maths: Solve two-step equations - Monday 22nd June 2020

Please watch the video first:

Solve two-step equations

White Rose Maths

1 Here is a part-whole model.

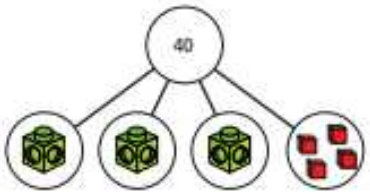


a) Write an equation for the part-whole model.

b) Solve the equation to work out the value of 

 = ☐

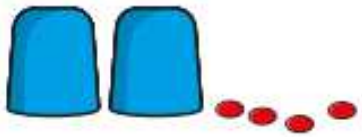
2 If each multilink cube represents x, form and solve an equation to find the value x.



$x =$ ☐

3 There is the same number of counters under each cup.

There are 16 counters in total.



a) Use y to represent the number of counters under each cup.

Write an equation in terms of y.

b) Solve the equation to find the value of y.

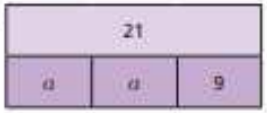
$y =$ ☐

c) How many counters are under each cup? ☐

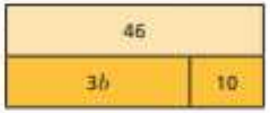
4 Write an algebraic equation to represent each bar model.

Find the values of a and b.

a)



b)



$a =$ ☐ $b =$ ☐

5 Solve the equations.

a) $5x + 1 = 31$

$x =$ ☐

b) $3x - 3 = 9$

$x =$ ☐

c) $4p - 11 = 3$

$p =$ ☐

d) $9 = 2y + 8$

$y =$ ☐

e) $10g - 2 = 46$

$g =$ ☐

f) $4 + 3y = 28$

$y =$ ☐

6 Dani thinks of a number.

She doubles it and adds 3

She gets the answer 15

a) Write an equation to represent Dani's problem.

b) Solve the equation to find her number.

☐

7 Alex is y years old.

Her friend Brett is 3 years older.

The total of their ages is 25

How old are Alex and Brett?

Alex is ☐ Brett is ☐

8

a) Work out the cost of one banana and one orange.

One banana costs ☐ One orange costs ☐

b) Compare methods with a partner.

Year 6 Home Learning - Maths: Find pairs of values - Tuesday 23rd June 2020

Please watch the video first:

Find pairs of values (2)

White Rose Maths

1 Class 6 are trying to solve a number puzzle.

▲ + ▲ + ● = 10

a)

The triangle could be 3 and the circle could be 4

Dexter

Do you agree with Dexter? _____

Explain why.

_____

_____

b)

The triangle is worth 4

Dora

What is the value of the circle in Dora's number puzzle?

● = □

c) Find other pairs of values that the triangle and circle could equal.

Find three pairs.

▲ = □ ● = □ ▲ = □ ● = □

▲ = □ ● = □

2 a and b are whole numbers.

$2a + b = 14$

Complete the table to show different possible values for a and b.

a	0	1	2	3	4	5	6	7
$2a$	0	2						
b	14							
$2a + b$	14	14	14	14				

3 c and d are both integers less than 15 but greater than zero.

$3c - d = 2$

Complete the table to show different possible values for c and d.

c	1	2	3	4	5
$3c$	3				
d	1				
$3c - d$	2	2	2		

b) Explain why there are no other possible values for c and d.

_____

_____

4 x and y are both multiples of 5 less than 100

If $2x = y$, circle the possible values of x and y.

$x = 20, y = 20$

$x = 10, y = 20$

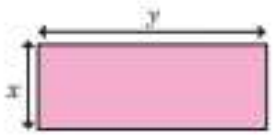
$x = 20, y = 10$

$x = 35, y = 70$

$y = 90, x = 45$

5 Here is a rectangle.

x and y are both integers.



The rectangle has a perimeter of 28 cm.

a) Write an equation to represent the perimeter of the rectangle.

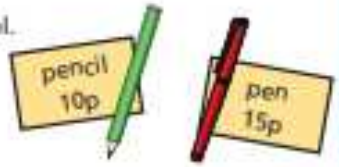
b) List all the possible pairs of values for x and y.

Compare answers with a partner. How do you know you have found all the possible values?

6 Aisha is buying some stationery for school.

She spends exactly £1

List the possible combinations of pencils and pens that Aisha could have bought.



7 Ron has four digit cards.

- Two of the cards have the same value.
- All of the cards are less than 10 but greater than zero.
- All of the cards are odd.
- The sum of the four cards is 24

Find two possible sets of cards.

Set 1 ☐ ☐ ☐ ☐

Set 2 ☐ ☐ ☐ ☐

8 $2ab = 48$

a) Find a pair of possible values for a and b.

$a =$ ☐ $b =$ ☐

b) Work with a partner to find as many pairs of values as you can.

Year 6 Home Learning - Maths: Convert metric measures - Wednesday 24th June 2020

Please watch the video first:

Convert metric measures

1 How many centimetre cubes can you fit along a metre stick?

What does this tell you?

2 Complete the sentences.

a) There are ☐ grams in 1 kilogram.

There are ☐ kilograms in one tonne.

b) There are ☐ millilitres in 1 litre.

c) There are ☐ millimetres in 1 centimetre

There are ☐ centimetres in 1 metre.

There are ☐ metres in 1 kilometre.

3 Complete the bar models.

a)

1 km	1 km	1 km	1 km
1,000 m	1,000 m		

There are ☐ m in 4 km.

b)

1 kg	1 kg	1 kg	1 kg	1 kg	1 kg	$\frac{1}{2}$ kg
1,000 g	1,000 g	1,000 g				

There are ☐ g in $6\frac{1}{2}$ kg.

4 Complete the conversions.

a) 2 kg = ☐ g

5 kg = ☐ g

10 kg = ☐ g

12kg = ☐ g

b) 1 l = ☐ ml

5 l = ☐ ml

11 l = ☐ ml

5 A bag of dog food weighs 2.5 kg.

Write this weight in grams.

☐

6 What measurements are the arrows pointing to?

Label them on the number line.

7 Complete the conversions.

a) 10 mm = ☐ cm ☐ mm = 1.1 cm

11 mm = ☐ cm ☐ mm = 10.1 cm

☐ mm = 11 cm

b) 2.1 km = ☐ m 2.01 km = ☐ m

2.001 km = ☐ m 2.011 km = ☐ m

8 Write >, < or = to complete the statements.

a) 100 m ◯ 1 km b) 5.1 l ◯ 5,100 ml

10 m ◯ 10 cm 607 l ◯ 0.607 ml

10.1 mm ◯ 101 cm 0.05 l ◯ 5 ml

9 Dora and Amir are trying to convert 1.05 metres into millimetres.

Dora: You can multiply 1.05 by 100 to convert it into centimetres, then multiply the product by 10 to convert it into millimetres.

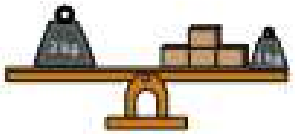
Amir: You can just multiply 1.05 by 1,000!

Who do you agree with? _____

Explain your thinking.

10 What is the mass of one of the boxes?

Give your answer in grams.



☐

11 There are 1,000 kg in one tonne.

a) How many grams are there in one tonne?

☐

b) A car weighs 1.3 tonnes.

Write the weight of the car in grams.

☐

Year 6 Home Learning - Maths: Miles and kilometres - Thursday 25th June 2020

Please watch the video first:

Miles and kilometres

White Rose Maths

1 Tick the statements that are true.

Use the bar model to help you.

1 mile	1 mile	1 mile	1 mile	1 mile

1 km	1 km	1 km	1 km	1 km	1 km	1 km	1 km

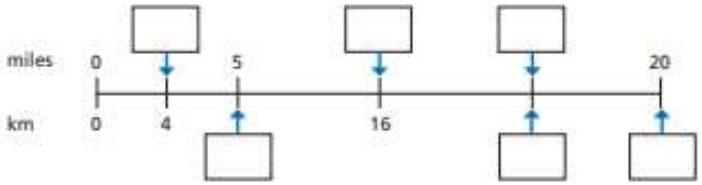
a) 5 miles is approximately equal to 8 kilometres. ☐

b) 1 mile is longer than 1 kilometre. ☐

c) 2 kilometres is longer than 1 mile. ☐

d) 2 kilometres is longer than 2 miles. ☐

2 Fill in the missing numbers on the number line.



3 Complete the conversions.

a) 5 miles = ☐ kilometres

10 miles = ☐ kilometres

15 miles = ☐ kilometres

b) ☐ miles = 16 kilometres

☐ mile = 1.6 kilometres

☐ miles = 0.8 kilometres

4 Complete the conversions.

a) ☐ miles = 160 km

b) 45 miles = ☐ km

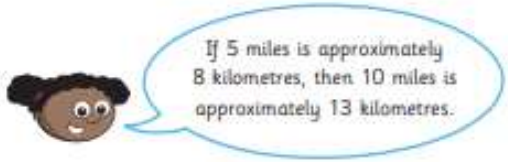
c) ☐ = 640 km

d) 95 miles = ☐ km

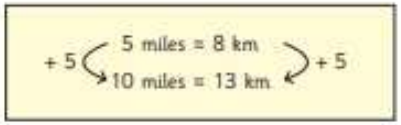
e) 7.5 miles = ☐ km

f) 2 miles = ☐ km

5



Here is Whitney's working out.



Explain Whitney's mistake.

6 A marathon is approximately 26.2 miles.

How far is this in kilometres?

7 The maximum speed limit on residential roads in the UK is 30 miles per hour.

In France, the maximum speed limit on residential roads is 50 kilometres per hour.

a) Which country has the higher speed limit for these roads?

b) What is the difference between the speed limits in miles per hour?

8 Esther cycles 70 miles over 4 days.

On day 1 she cycles 14 miles.

On day 2 she cycles 32 km.

On day 4 she cycles twice as far as she does on day 3

How far does she cycle on day 4?

Give units with your answer.

9 Use a map of your local area.

Find something that is approximately:

a) 1 mile away from your school

b) 1 km away from your school

c) 5 miles away from your school

d) 5 km away from your school

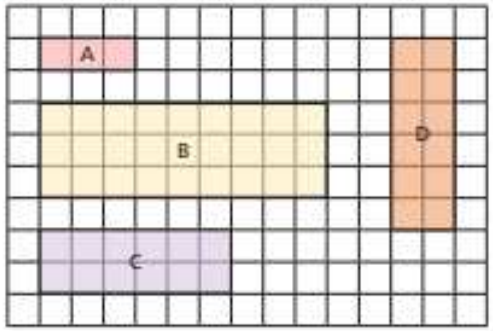
Compare answers with a partner.

Year 6 Home Learning - Maths recap: Calculating scale factors - Friday 26th June 2020

Calculating scale factors

White Rose Maths

1 Complete the sentences.

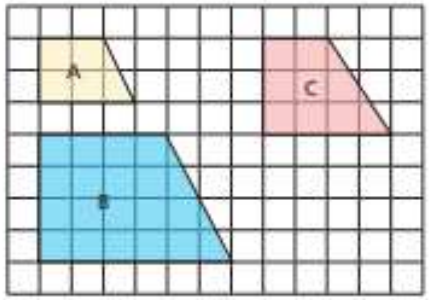


Shape B is an enlargement, by a scale factor of ☐, of shape A.

Shape C is an enlargement, by a scale factor of ☐, of shape A.

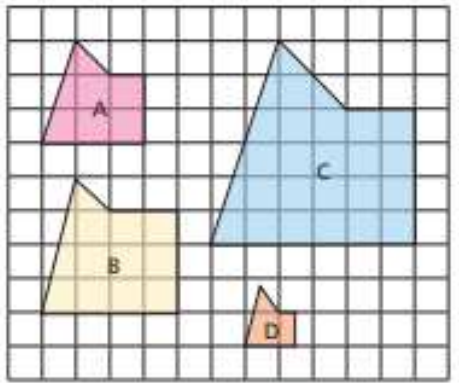
Shape D is an enlargement, by a scale factor of ☐, of shape A.

2 Shape B is an enlargement of shape A. Shape C is not an enlargement of shape A.



Talk to a partner about why this is the case.

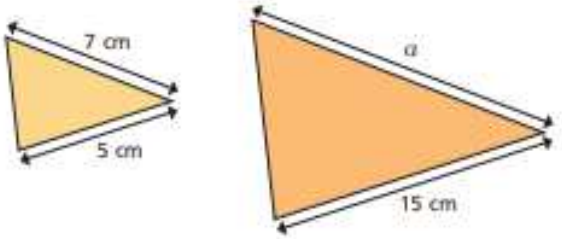
3 Tick all the shapes that are an enlargement of shape A.



How do you know which shapes are enlargements?

4 The two triangles are similar.

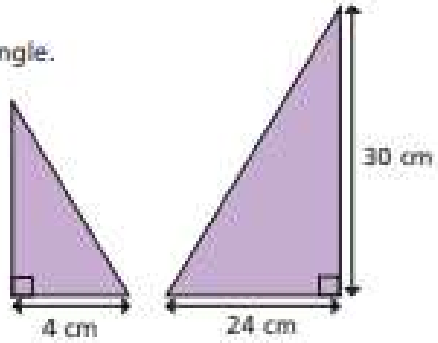
Find the length of a.



$a =$ ☐ cm

5 The two triangles are similar.

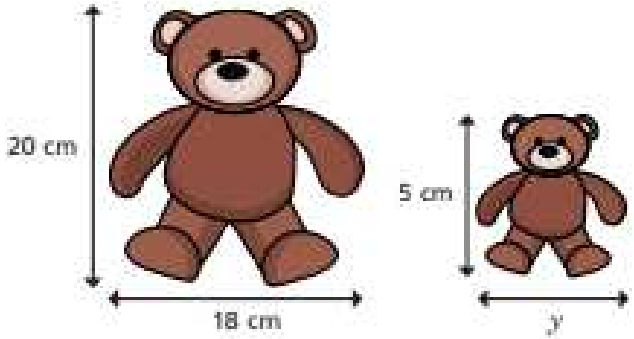
Find the area of the smaller triangle.



area = ☐ cm^2

6 These two children's toys are similar.

Find the length marked y.

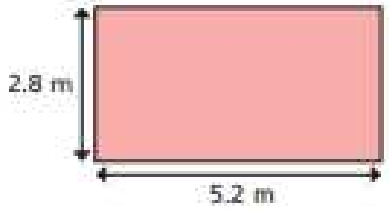


y = ☐ cm

7 The rectangle is enlarged by a scale factor.

The perimeter of the enlarged rectangle is 64 m.

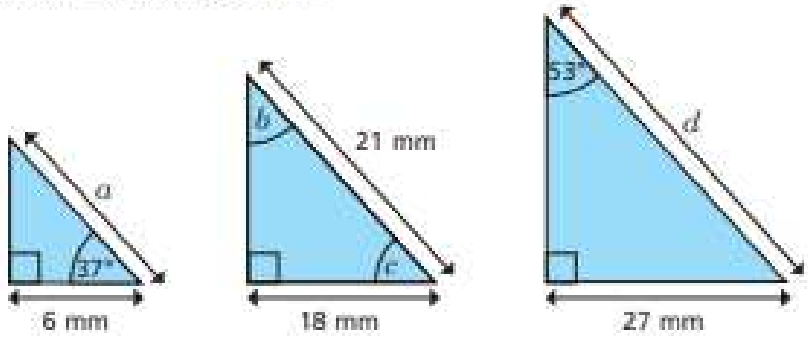
What is the scale factor of enlargement?



scale factor = ☐

8 The diagram shows three similar triangles.

Calculate the missing values.



a = ☐ b = ☐ c = ☐ d = ☐