Year 6 - Home Learning Project - Week 13 - 13/07/2020: Perilous Peaks

Daily activities:

English worksheet and tasks	Maths	Reading Plus	TTRS	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 new topic of **Perilous Peaks.**

Geography: The Alps

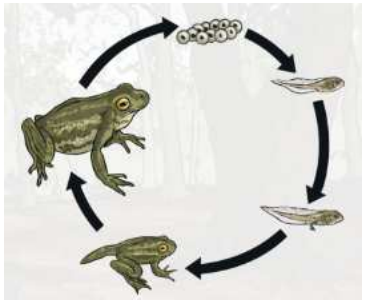
The Alps is the greatest mountain range of Europe. It reaches from Austria and Slovenia in the east through Italy, Switzerland, Liechtenstein and Germany; to France in the west. The original meaning of the word was 'white'. The highest mountain in the Alps is Mont Blanc, at 4,803 metres (15,774ft) on the Italian-French border. Take a look at the majestic views and find out a bit more about these special mountains on BBC Bitesize.

What else can you find out about the mountain range? What animals live there? Is the climate the same across all of The Alps? Complete further research on Kiddle. Look at the information sheet below and gather evidence under each heading. Remember to check different sources if necessary and where possible always try to put your research in your own words.

Art: Mountain Landscapes

Continuing with our theme of impressionism we're going to find out more about the artist Van Gough and sketch a mountain landscape in the same style as his famous painting "Wheatfield with Mountains in the Background, 1889".

Begin by finding out about the artist here. Then follow the steps found below to practise different areas of the painting.



Science: comparing life cycles

All living things go through a series of developmental stages known as a life cycle. For most plants and animals, the cycle begins when an ovum (egg cell) grows and matures into adulthood. At this point the organism is able to reproduce, and the cycle continues with the next generation. Some life cycles are very short, with organisms developing to adulthood in a matter of days or weeks. Other life cycles, such as that of the oak tree, can run for decades or even hundreds of years.

Task 1: think about what you have learned in the world around you and in your science lessons so far. Can you use this knowledge to answer these questions? Are there any you're not sure about?

- Do bats lay eggs because they have wings just like birds?
- Do whales lay eggs because they live in water just like fish?
- Do animals that look similar always have the same kind of life cycle?
- Do all animals that are a similar size always have the same kind of life cycle?
- Do animals that live in the same habitat always have the same kind of life cycle?
- Do only females carry and feed the young?

Task 2:

Mammals are warm-blooded animals with fur or hair on their skin and a skeleton inside their body. Mammal mothers produce milk to feed their babies. Look below at your science task information and read about the different life cycle stages for mammals. Choose your own mammal to research then draw and label the three main stages of life.

Task 3:

Amphibians are a class of animals like reptiles, mammals, and birds. They live the first part of their lives in the water and the last part on the land. When they hatch from their eggs, amphibians have gills so they can breathe in the water. They also have fins to help them swim, just like fish. Read about the life cycle of amphibians below and then present your findings in a fold or flip book.

Spanish: Numbers and Introductions

Open the link on the Oak National Academy home learning website to enjoy an online Spanish lesson with Senorita Harrison. In this lesson you will recap on your knowledge of the Spanish alphabet and Spanish numbers. After that, you'll practise Spanish introductions and perfect your pronunciation of the letter sounds in Spanish.

English Grammar: Prepositions

This week's focus is on prepositions.
A preposition is a word that tells you where or when something is in relation to something else.
Read through the explanations and examples underneath and when you're finished try the grammar mini quiz found below.

Sticky Knowledge (remembering our previous learning):

History: Olympics

The first Olympics were held in Greece in 776 BCE. They were very different to the modern Olympics we experience today. Recap on your knowledge of the ancient games by watching this Ted Talk video and on BBC Bitesize.
What are the similarities and differences? Find out more on this video link (it might be useful to make notes when you get to 3.15 minutes)
Complete the Venn diagram below to compare the ancient and modern Olympics, for example a similarity (put these in the middle intersection) might be that both ancient and modern Olympics occur every four years. A difference might be that the ancient Olympics only had male competitors while the modern Olympics have men and women.

Geography: Biomes

Biomes are areas around the world with similar animals and plants, climate and landscape.
Find out more about the different biomes on BBC Bitesize and then complete the matching activity online.
Find further information on Kids Britannica.
Choose one biome and create an information poster.

Science: Evolution and Inheritance

This year we learned all about **evolution** (the way that living things change over time.) **inheritance** (When living things reproduce and pass on characteristics to their offspring) and **adaptation** (the process by which animals, plants and other living things have changed so that they better suit their habitat) Recap on all of this knowledge by watching the three video clips on BBC Bitesize. When you're feeling more confident complete the quiz for each video.

Underneath, you will find a revision grid for the evolution and inheritance topic – complete each section using clear scientific language.

Website links mentioned above:

https://kids.kiddle.co/Alps - Kiddle information on The Alps

https://www.bbc.co.uk/bitesize/topics/z3fycdm/articles/zb3ywty - BBC Bitesize Alps

https://www.bbc.co.uk/bitesize/clips/z8fgkqt - Art - Van Gough

https://classroom.thenational.academy/lessons/introducing-yourself-in-spanish-591968 - Spanish numbers and introduction Oak National Academy

https://www.bbc.co.uk/bitesize/topics/z87tn39/articles/z36j7ty - History sticky knowledge

https://www.youtube.com/watch?v=VdHHus8IgYA – History sticky knowledge history of the ancient Olympics video

https://www.youtube.com/watch?v=uSf7-LsmU3Y - History sticky knowledge comparison video

https://www.bbc.co.uk/bitesize/topics/z849q6f/articles/zvsp92p - Geography sticky knowledge – Biomes BBC Bitesize

https://kids.britannica.com/kids/article/biome/403913 Geography sticky knowledge – Biomes Kids Britannica

https://www.bbc.co.uk/bitesize/topics/zvhhvcw - Science sticky knowledge – evolution and inheritance

Research information about The Alps mountain range under the headings below. Remember to put information in your own words.

What countries does The Alps mountain range span?	
Geography of The Alps e.g. highest peak, area in m^2 etc.	
Describe the climate of The Alps. Is it the same throughout the whole area?	
What wildlife would you find there?	

What kind of plants and trees grow there?	
What do tourists enjoy in the area?	

Art - Van Gough Mountain Landscape

1) Sit quietly and take a good look at the painting. What do you notice? How does it make you feel? What colours have been used by the artist?

2) Van Gough has included various buildings. Zoom in on these. Look at the lines and angles he has used. Try to recreate these parts of the painting.

3) Look at the hills in the distance. How has the artist created this perspective? Look at the brush strokes and colour used for the wheat fields. Can you recreate this?

Science: comparing life cycles task 2

Mammals

The life cycle of a mammal involves three main stages:

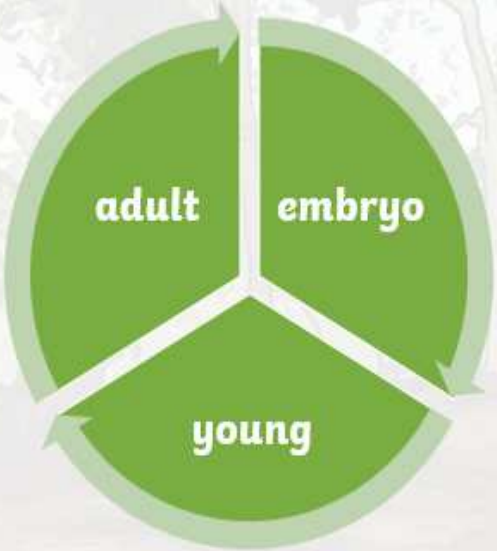
Independent adult usually seeks company from the opposite sex and mates. Adult female nurses their young.

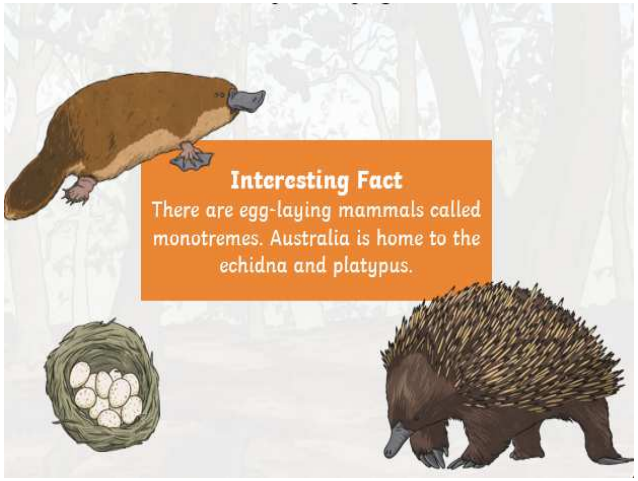
Mammals:
- have hair or fur;
- Are warm-blooded;
- feed babies milk;
- give live birth.

Young: Main period of growth and developing independence from the parents.

Gestation: Embryo growing inside the mother, where it is completely reliant upon the mother.

Choose a different mammal and draw the life cycle stages.

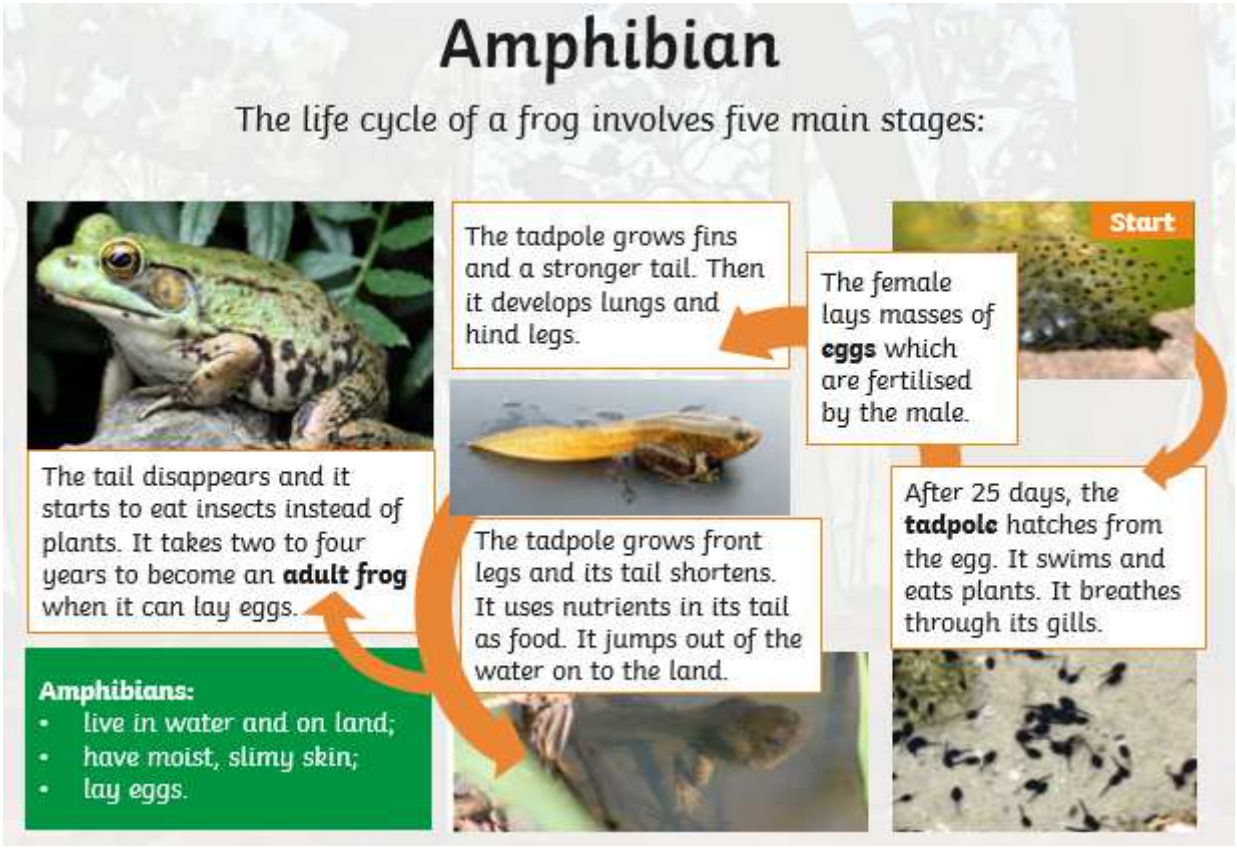




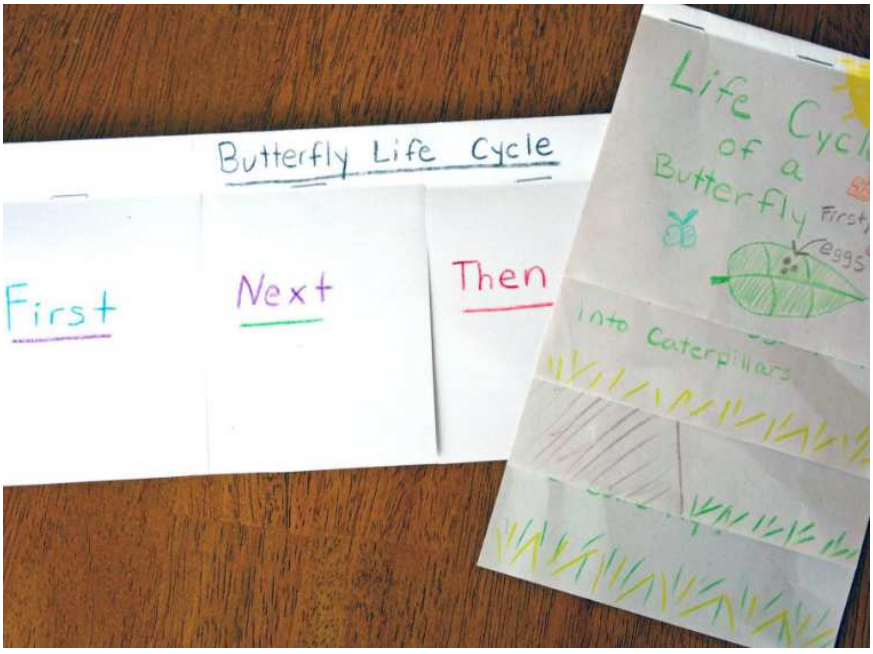
Interesting Fact

There are egg-laying mammals called monotremes. Australia is home to the echidna and platypus.

Science: comparing life cycles task 3



Can you use this information to create your own flip or fold book to present your learning about the life cycle of a frog (or a different amphibian)?



English Grammar: Prepositions

Prepositions of Location: The Rules

Prepositions are used to show the **location**, **time** or **movement** of nouns or pronouns.

Prepositions of **location** show the **place** or **position** of a noun or pronoun e.g.

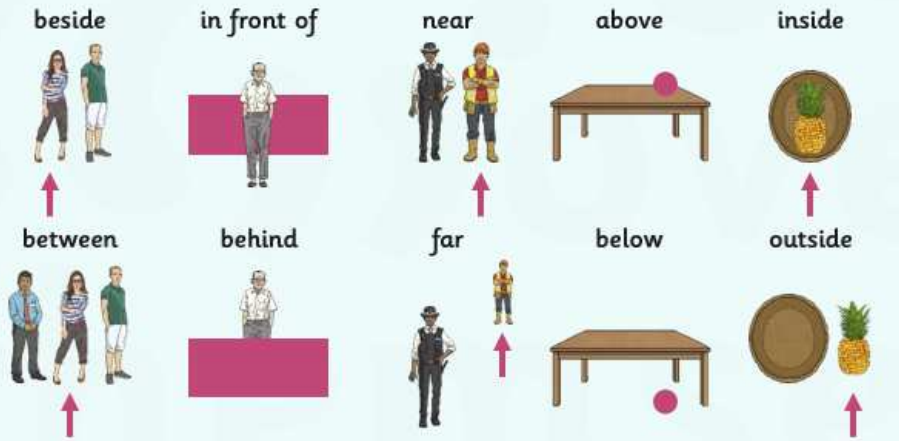
The tools were inside the garden shed.

Behind the cloud, the sun peeped.

Harry sat under the shady tree.

Prepositions of Location: The Rules

There are many prepositions of **location**. Here are a few of the most commonly used ones:



Prepositions of Time: The Rules

Some prepositions show **time**. The three most commonly used time prepositions are **at**, **on** and **in**.

At the weekend, I am going to the cinema.

I go to swimming lessons on Thursdays.

Leaves turn brown in the Autumn.

Prepositions of Time: The Rules

There are many more prepositions that show and signal **time**...

before | since | until | by

before | during | as | past

Prepositions of Movement: The Rules

Other prepositions can show **movement** or **direction**.

Yasmin zoomed down the slide.

The pig jumped into the pond.

Ben reluctantly got out of bed.

Prepositions of Cause: The Rules

Other prepositions can tell us about how something is **caused** by something else.

Due to the loud noise, Joy covered her ears.

The match was cancelled because of the weather.

Kyle was admitted to hospital as a result of his blood test results.

Prepositions: The Tricky Bits

Some prepositions can also be **subordinating conjunctions**.

after | before | until | as | since

Since she won the contest, Vicky had become famous.

In this example 'since' is used as a subordinating conjunction to form a subordinate clause.

I haven't had a shower since Tuesday.

In this example 'since' is used as a preposition.

This can be very confusing! If the word is used **within a clause that contains a subject and a verb**, then it is usually being used as a **subordinating conjunction**.

Now try this preposition mini test

1. Tick **all** of the sentences that contain a **preposition**.

The children walked across the field. ☐

Jayden wants to stand by Emma. ☐

They forget their PE kits and they don't bring their letters. ☐

Her mum works in an office. ☐

2. Tick the option that shows how the underlined word is used in the sentence.

The flowers grew <u>beside</u> the tree.

As a time preposition ☐

As a cause preposition. ☐

As a clause preposition. ☐

As a place preposition. ☐

3. Write a sentence using **before** as a preposition.

4. Explain how to get into your classroom using **three or more different** prepositions.

5. Put the prepositions in the table.

thanks to	because of	under	on Wednesday
through	at 2 o'clock	in spring	next to

Prepositions for place	Prepositions for cause	Prepositions for time

History sticky knowledge: Ancient and Modern Olympics

Ancient Olympics vs. Modern Olympics

Ancient Olympics

Modern Olympics

Science sticky knowledge: Evolution and Inheritance

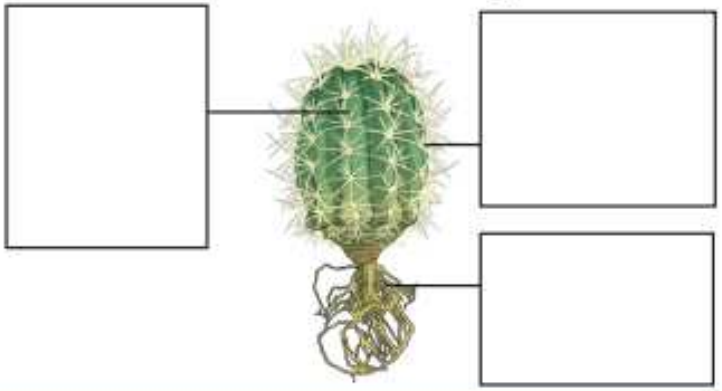
Fill in the gaps to complete the sentences.

All _____ things are made of _____. In the centre of a cell is the nucleus. This is where all the _____ is stored.

The genetic material is contained in chromosomes that are made of _____. This makes us who we are.

Keywords: DNA, cells, genetic material, living

A cactus is adapted to survive in dry conditions. Label its adaptations on the diagram.



Complete the sentence.

Charles Darwin developed the theory of _____ .

Who else came up with the same theory?

_____

_____

_____

List three ways a lion is adapted to catch prey.

1. _____
2. _____
3. _____

Is this statement true or false?

'Variation is when characteristics of an animal or plant are different, caused by inherited and environmental factors.'

_____

English Home Learning Y6
13/07/2020 –
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.

A mysterious shadow

Monday 13th July 2020 Question Time
Year 6 – A Mysterious Shadow – Day 1

Question Time

What is the difference between a shadow and a silhouette?
What causes a shadow?
Why do shadows sometimes change size?
Can you make a shadow in a dark room?
Why are shadows always black?

Tuesday 14th July 2020 Sick Sentences
Year 6 – A Mysterious Shadow – Day 2

Sick sentences

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

The shadow went across the garden. A light shone. The shadow touched the lock and opened the door.

Wednesday 15th July 2020 Grammar Sentence Challenge
Year 6 – A Mysterious Shadow – Day 3

Sentence challenge

A preposition is a word which shows the relationship between one thing and another.
It may tell you where a thing is in relation to something else. E.g. The silver, shining bolt was on the door.
It may tell you when something is in relation to another event. E.g. She refused to leave the room until she knew the coast was clear.
Can you find any prepositions in your writing? Can you write 3 sentences that contain prepositions?
Is it possible to begin a sentence with a preposition? Can you end a sentence with a preposition? What about trying to start and end a

Thursday 16th July 2020 Story Starter
Year 6 – A Mysterious Shadow – Day 4

Read the beginning of the story based on 'A Mysterious Shadow' - can you complete the story in the same style? Don't forget to include the grammar you have been learning the last few weeks e.g. subordinate clauses and prepositions.

Story starter

It happened in the dead of night. The garden light illuminated the person, casting a mysterious shadow.

As silent as a whisper in the night, the figure stealthily crept towards the green, wooden doors. Click…The key slipped into the metal lock, the cold mechanisms inside responding to the familiar shape of the object that had been slipped inside. Seeing the padlock pop open as expected, the figure slipped the slender bolt across into its resting position. The doors groaned agonizingly, the figure turning to survey the surrounding area, alarmed at the loudness of the sound their actions had made.

The coast seemed clear. Resuming their mission, the shadow slipped inside the room. There it was. This was the sight and moment they had been waiting for…

Friday 17th July 2020 Spelling
Year 6 – A Mysterious Shadow – Day 5

correspond	criticise	curiosity
definite	desperate	develop
dictionary	disastrous	embarrass
environment	equipment	equipped

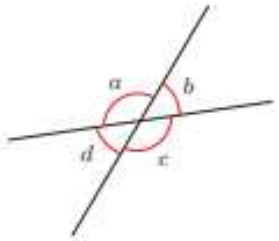
Year 6 Home Learning - Maths: Vertically Opposite Angles - Monday 13th July 2020

Please watch the video first: https://vimeo.com/434627555

Vertically opposite angles

White Rose Maths

1 The diagram shows four angles formed by two straight lines.



a) Measure the sizes of the angles.

$a =$ ☐ $b =$ ☐ $c =$ ☐ $d =$ ☐

b) What is the total of angles a and b? ☐

Explain why.

_____

Do any other pairs of angles have this same total?

c) Angles a and c are vertically opposite angles.

What do you notice about the sizes of angles a and c?

_____

d) Angles b and d are also vertically opposite angles.

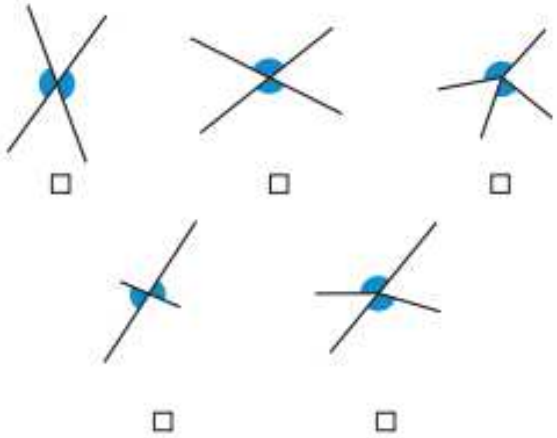
What do you notice about the sizes of angles b and d?

_____

e) Complete the sentence.

Vertically opposite angles _____

2 Tick the pairs of angles that are vertically opposite.



☐ ☐ ☐ ☐ ☐

Compare answers with a partner.

3 Work out the sizes of the unknown angles.

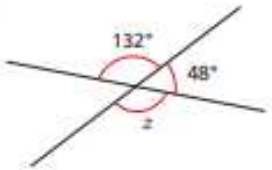
Give reasons for your answers.

a)

$y =$ ☐ because _____

_____

b)



$z =$ ☐ because _____

_____

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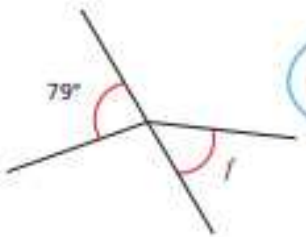
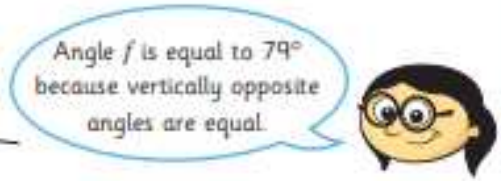
4 Annie is working out the size of angle f.





Do you agree with Annie? _____

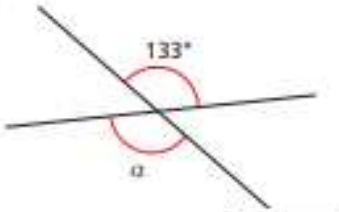
Explain your answer.

_____

_____

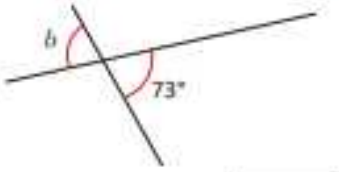
5 Work out the unknown angles.

a)



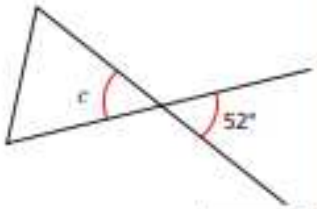
$a =$ ☐

b)



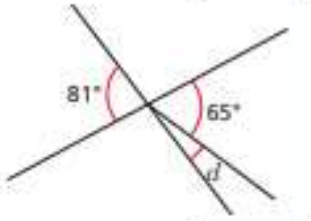
$b =$ ☐

c)



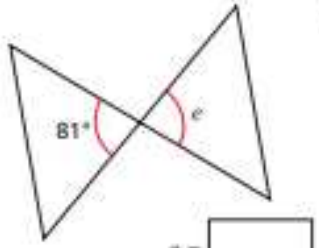
$c =$ ☐

d)



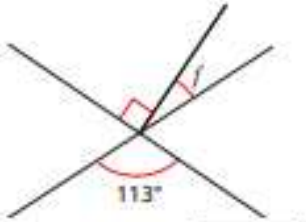
$d =$ ☐

e)



$e =$ ☐

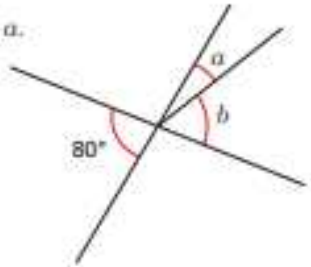
f)



$f =$ ☐

Talk about your reasons with a partner.

6 Angle b is three times the size of angle a.

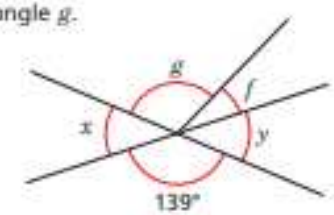


Work out the sizes of angles a and b.

$a =$ ☐ $b =$ ☐

7 Angle f is one quarter of the size of angle g.

Angle f is 28°.



Are angles x and y vertically opposite? _____

Explain your answer.

_____

_____

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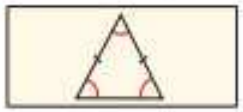
Year 6 Home Learning - Maths: Angles in a triangle (missing angles) - Tuesday 14th July 2020

Please watch the video first: https://vimeo.com/434627646

Angles in a triangle – missing angles

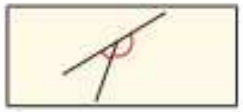
White Rose Maths

1 Match each diagram to the correct rule.

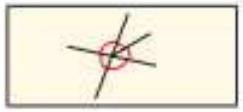


Angles on a straight line sum to 180°

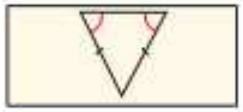
Angles around a point sum to 360°



Angles in a triangle sum to 180°



In an isosceles triangle, two angles are equal

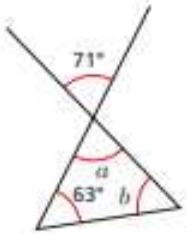


Vertically opposite angles are equal

2 Work out the sizes of the unknown angles.

Give reasons for each stage of your working.

a)



$a =$ ☐ because _____

_____

$b =$ ☐ because _____

_____

b)

$d =$ ☐ because _____

_____

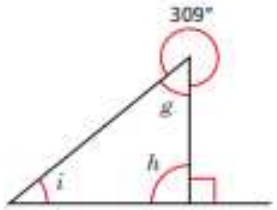
$e =$ ☐ because _____

_____

$f =$ ☐ because _____

_____

c)



$g =$ ☐ because _____

_____

$h =$ ☐ because _____

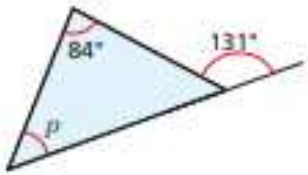
_____

$i =$ ☐ because _____

_____

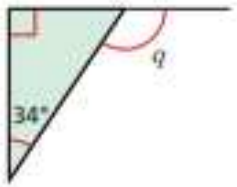
3 Work out the sizes of the angles marked with letters.

a)



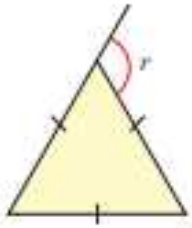
$p =$ ☐

b)



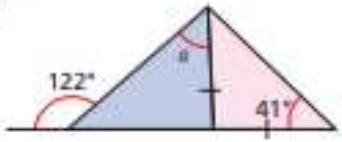
$q =$ ☐

c)



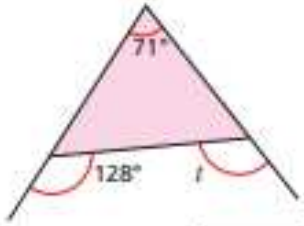
$r =$ ☐

d)



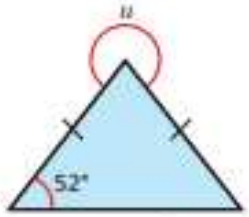
$s =$ ☐

e)



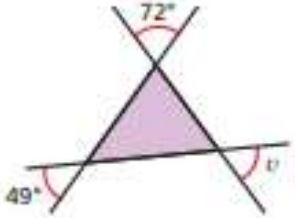
$t =$ ☐

f)



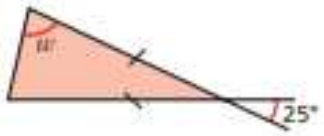
$u =$ ☐

g)



$v =$ ☐

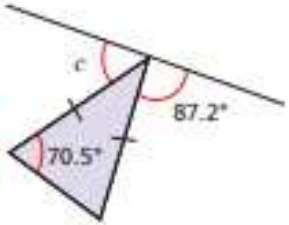
h)



$w =$ ☐

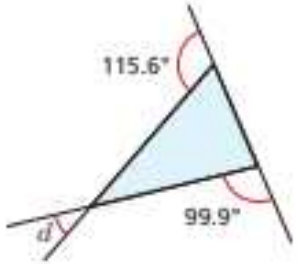
4 Work out the sizes of the unknown angles.

a)



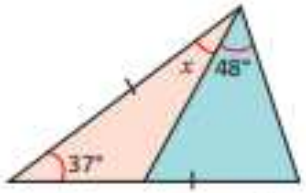
$c =$ ☐

b)



$d =$ ☐

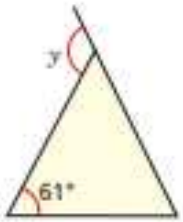
5 Work out the size of angle x.



$x =$ ☐

6 Here is an isosceles triangle.

Find two possible sizes of angle y.



$y =$ ☐ or ☐

Year 6 Home Learning - Maths: Angles in special quadrilaterals - Wednesday 15th July 2020

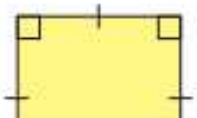
Please watch the video first: https://vimeo.com/434627734

Angles in special quadrilaterals

White Rose Maths

1 Work out the sum of the angles in each shape.

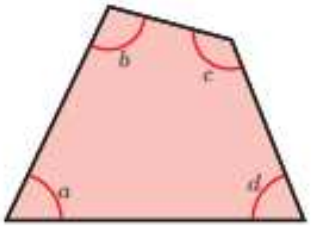
a)

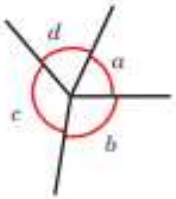


b)

What do you notice?

2 The diagrams show the four vertices of a quadrilateral arranged around a point.





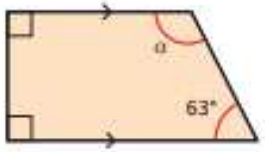
What do the diagrams illustrate about the sum of the angles in a quadrilateral?

Complete the sentence.

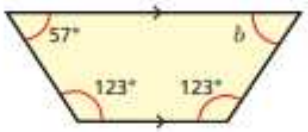
Angles in a quadrilateral _____

3 Work out the size of the unknown angle in each trapezium.

a)



b)

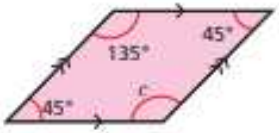


$a =$ ☐ $b =$ ☐

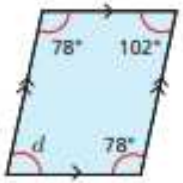
c) What is the same and what is different about the trapeziums?

4 Work out the sizes of the unknown angles.

a)



b)



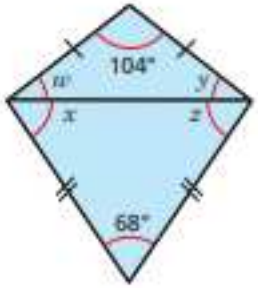
$c =$ ☐ $d =$ ☐

c) What do you notice about opposite angles in a parallelogram?

_____

5 Two isosceles triangles are joined to form a kite.

a) Work out the sizes of the unknown angles.



$w =$ ☐ $y =$ ☐ $x =$ ☐ $z =$ ☐

b) Work out $w + x$.

☐

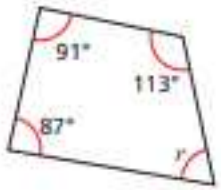
c) Work out $y + z$.

☐

What do you notice? Talk about it with a partner.

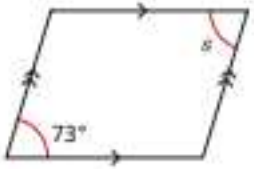
6 Work out the sizes of the unknown angles.

a)



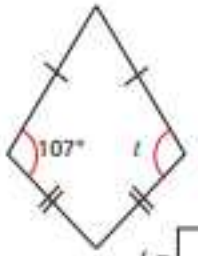
$r =$ ☐

b)



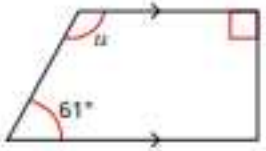
$s =$ ☐

c)



$t =$ ☐

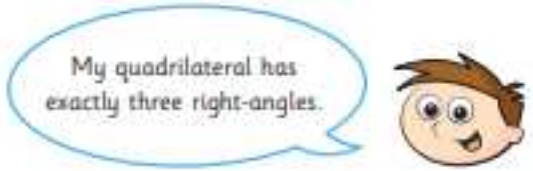
d)



$u =$ ☐

Compare your reasoning with a partner.

7 Teddy is drawing a quadrilateral.



Is Teddy's quadrilateral possible? _____

Explain your answer.

_____

_____

Year 6 Home Learning - Maths: Angles in polygons - Thursday 16th July 2020

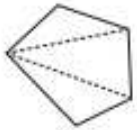
Please watch the video first: https://vimeo.com/434627811

Angles in regular polygons

1 The sum of the interior angles of a triangle is 180°.

Split the polygons into triangles to work out the sum of their interior angles. Your lines should not overlap.

The first one has been done for you.

a) 

number of sides = 5

number of triangles = 3

3 × 180 = 540

The sum of the interior angles of a pentagon is 540°

b)

number of sides = ☐

number of triangles = ☐

☐ × 180 = ☐

The sum of the interior angles of a hexagon is ☐

c)

number of sides = ☐

number of triangles = ☐

☐ × 180 = ☐

The sum of the interior angles of a heptagon is ☐

What do you notice about the number of sides compared to the number of triangles?

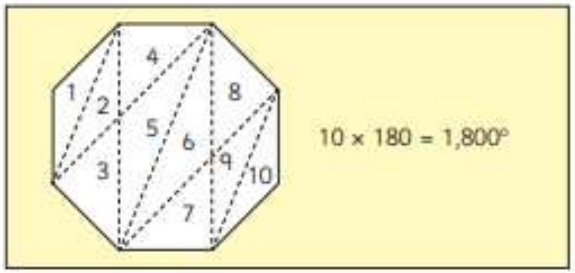
2 Complete the table.

Shape	Number of sides	Number of triangles	Sum of interior angles
quadrilateral	4	2	360°
pentagon			
nonagon			
decagon			
	6		
		6	
			1,800°

Compare answers with a partner.

3 Dani is working out the sum of the interior angles of a polygon.

Here are her workings.



Do you agree with Dani? _____

Explain your answer.

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4 Rosie, Amir and Eva are drawing polygons.

a)

I have split my polygon into four triangles.

Rosie

What polygon has Rosie drawn?

_____

b)

The sum of the interior angles of my polygon is 1,080°.

Amir

What polygon has Amir drawn?

_____

c)

My polygon has more sides than Rosie's but fewer than Amir's.

Eva

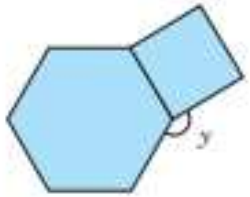
What is the sum of the interior angles of Eva's polygon?

□

5 Each compound shape is made up of regular polygons.

Work out angle y in each case.

a)

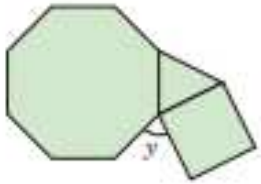


$y =$ □

c)

$y =$ □

b)



$y =$ □

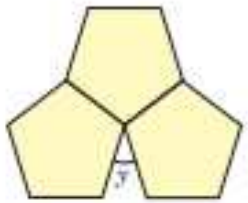
d)

$y =$ □

6 The pentagons shown are regular.

Work out the size of angle y in each case.

a)



$y =$ □

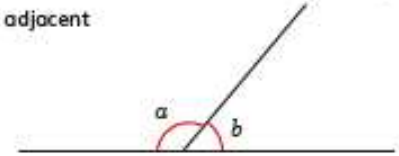
b)

$y =$ □

Year 6 Home Learning - Maths recap: Calculate Angles - Friday 17th July 2020

Calculate angles

1 Two angles, a and b, are adjacent on a straight line.



a) Measure angles a and b.

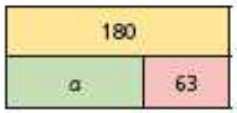
$a =$ ☐ $b =$ ☐

b) What is the total of the two angles? ☐

c) Complete the sentence.

Adjacent angles on a straight line _____

2 a) Complete the fact family for the bar model.



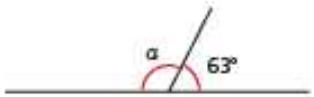
$a + 63 =$ ☐ $180 -$ ☐ $= a$

$63 +$ ___ $=$ ☐ $180 - a =$ ☐

b) Tick the calculation in part a) that helps you work out the value of a.

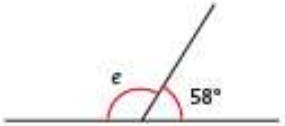
c) Work out the value of a. $a =$ ☐

d) How does the bar model help you to calculate angle a?



3 Work out the unknown angles.

a)

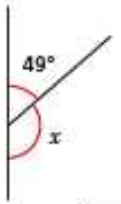


$e =$ ☐

b)

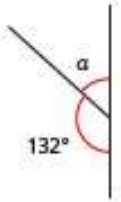
$g =$ ☐

c)



$x =$ ☐

d)

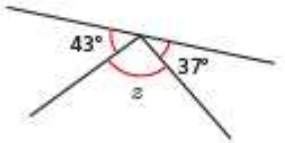


$a =$ ☐

e)

$y =$ ☐

f)



$z =$ ☐

4 Dora is facing in the direction shown by the arrow.

She does a full turn clockwise.

a) Show Dora's turn on the diagram.

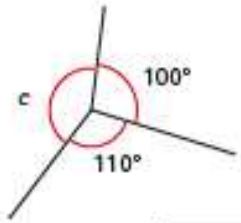
b) How many degrees did Dora turn through? ☐

c) Use your answer to part b) to help you complete the sentence.

Angles around a point _____

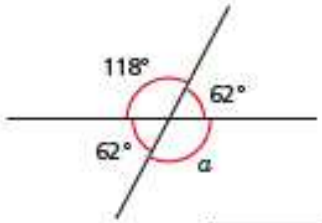
5 Work out the unknown angles.

a)



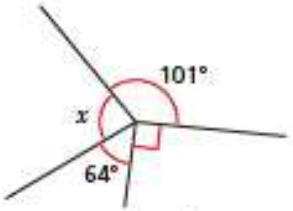
$c =$ ☐

c)



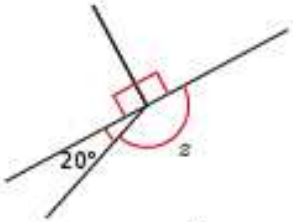
$a =$ ☐

b)



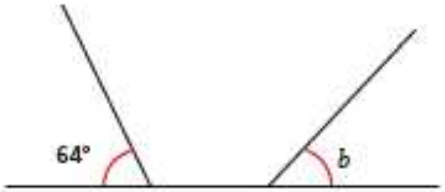
$x =$ ☐

d)



$z =$ ☐

6



Angle b is 116° because angles on a straight line add up to 180°.

Do you agree with Tommy? _____

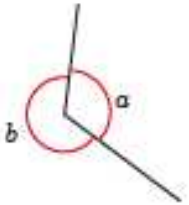
Explain your answer.

_____

_____

7 Use the information to work out the unknown angles.

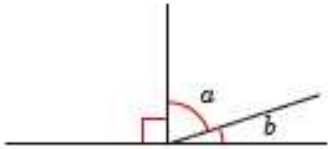
a) Angle a is half the size of angle b.



$a =$ ☐

$b =$ ☐

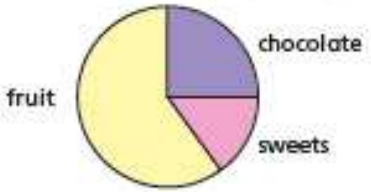
b) Angle a is four times the size of angle b.



$a =$ ☐

$b =$ ☐

8 The pie chart shows some children's favourite snacks.



A quarter of the children said chocolate was their favourite snack.

Five times as many children voted for fruit as voted for sweets.

Work out the size of the angle for each sector in the pie chart.

chocolate ☐ sweets ☐ fruit ☐

Year 5 Home Learning – Maths Lesson 1: Regular and irregular polygons - Monday 6th July 2020

Please watch the video first: https://vimeo.com/434626861

Year 5 Home Learning – Maths Lesson 2: Reasoning about 3D shapes- Tuesday 7th July 2020

Please watch the video first: https://vimeo.com/434626976

Year 5 Home Learning – Maths Lesson 3: Reflection – Wednesday 8th July 2020

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Year 5 Home Learning – Maths Lesson 4: Translation – Thursday 9th July 2020

Please watch the video first: https://vimeo.com/434627281

Year 5 Home Learning – Maths Lesson 5: Friday challenge – Friday 10th July 2020