YEAR 6

HOME LEARNING

Oldbury Park
PRIMARY RSA ACADEMY

Hello, Year 6!

We hope you enjoyed last week's learning about fossils in our new topic: Survival of the Fittest. We have loved seeing your posts on Twitter of all the amazing things you have been doing. Some of you have been baking and cooking some healthy recipes linked to our healthy bodies work and started researching fossils by reading books you already have at home! Some of the artwork we have seen has been lovely, and very skilled! We hope you're finding time to be creative and exercise too!

We're pleased to see that you're all having a go at the work on these sheets and pushing yourselves to keep your brains active! Many of you have even been doing extra work by using some of the links we sent out in your packs. We know this can be a tricky time without your friends and teachers but were really proud of how you are coping and helping each other. Modern technology has enabled lots of you to keep in contact with each other and stay positive. It has also been lovely speaking to you or your parents on the phone, we are missing you all!

Miss Moule   Miss Hill   Julie

EVERY DAY

Daily Maths lessons - https://whiterosemaths.com/homelearning/year-6/ (Summer term Week 1 20th April)
Watch the video and then complete the written task (some of these need printing). This is 30-40 minutes work. **This week is angles and angles in a triangle.**
We have also create an arithmetic daily practice sheet (week 1). Complete 1 box of 8 questions per day. You can find this on the website, near this sheet.

Mathletics – 15-20 minutes (more if you wish).
Read for at least 30 minutes.

CGP BOOKS (across the whole week)

Maths – Pages 68-73 (after completing White Rose Tasks). This is for all 3 math's groups and pages 21-28 for a recap of learning.

English – Pages 18-19 and Section 5

SURVIVAL OF THE FITTEST!   Additional tasks for this week (4/5/20)

English

Monday
CGP book pages 18-19 (Poem Reading Comprehension)
CGP book pages 52-54 (SPaG)
Tuesday
Reading comprehension (Georgia O'keefe Biography)
https://www.twinkl.co.uk/resource/t2-e-41522-uks2-georgia-okeeffe-differentiated-reading-comprehension-activity We would like you to complete the 3 star questions but if they are too tricky, have a go at the 2 star.
CGP book pages 55-57 (SPaG)
Wednesday & Thursday
We would like you to research Mary Anning and create a biography all about her using Microsoft Word. She was a very famous scientist, which is why she is important in our new topic. You may want to think about the following questions: What kind of scientist was she? Why is she famous? What did her collection help scientists to discover? You will need to research about her personal life too. Here are some features of a biography and some research links to help you.
https://www.twinkl.co.uk/resource/features-of-an-biography-word-mat-t2-e-5172
https://www.bbc.co.uk/bitesize/topics/zd8fv9q/articles/zf6vb82
https://www.bbc.co.uk/programmes/p015gn89
Friday
Creative writing. Here is an image with a story starter. Use the image to continue the writing, or create your own story. Be imaginative!
https://www.pobble365.com/lost/

TOPIC

DT – cooking! Thinking back to your work on keeping our bodies healthy, we would like you to choose your favourite meal and substitute some ingredients to make it even healthier! For example, you could swap chips for sweet potato chips or use a healthier method of cooking. Remember to think about 5-a-day and the Eat-well plate to create a balanced meal. If you can, have a go at cooking this meal for your family! You will need to ask an adult for some help here. We would love to see your meals on Twitter!

Computing – Have a go at developing your typing skills. Use this website to learn how to be a quicker and more efficient typist.
https://www.bbc.co.uk/bitesize/topics/zf2f9j6/articles/z3c6tfr
Using your research about Mary Anning, we would like you to create a biography page on Microsoft word. You can practise your typing skills and show off with some presentational features of word.

Art – develop your sketching skills. Use inspiration from the Georgia O'keefe reading comprehension to create your own art. Use this link to help you develop your skills.
https://www.twinkl.co.uk/resource/t2-a-021-ks2-art-drawing-techniques-lesson-teaching-pack

Daily Practice – 1

1) 2676 + 6482 =

2) 9637 – 1634 =

3) 73 x 12 =

4) 968 / 6 =

5) 2/3 + 4/5 =

6) 20% as a decimal =

7) 394.3 x 100 =

8) 10 x 9 x 7 =

Daily Practice – 2

1) 649.3 + 2755 =

2) 4998 – 2369 =

3) 469 x 17 =

4) 369 / 12 =

5) 1/5 + 3/4 =

6) 0.67 as a fraction =

7) 152.3 / 100 =

8) 7 x 12 x 6 =

Daily Practice – 3

1) 7769 + 3346 =

2) 79.3 – 46.26 =

3) 79 x 24 =

4) 4698 / 14 =

5) 8/9 + 2/5 =

6) 46/100 as a percentage =

7) 0.697 x 100 =

8) 9 squared + 9 x 9 =

Daily Practice – 4

1) 1369.68 + 468.3 =

2) 796 – 125.5 =

3) 987 x 22 =

4) 735 / 30 =

5) 6/10 + 3/4 =

6) 13/100 as a decimal =

7) 7463.2 / 100 =

8) 10 x 3 / 3 =

Daily Practice – 5

1) 16.38 + 74.7 =

2) 9436 – 1398 =

3) 76 x 16 =

4) 432 / 6 =

5) 2/7 + 1/6 =

6) 31% as a fraction =

7) 0.469 x 1000 =

8) 2 x 7 x 6 =

Daily Practice – 6

1) 3445 + 22.8 =

2) 64.71 – 63.2 =

3) 769 x 5 =

4) 7615 / 7 =

5) 4/10 + 1/6 =

6) 0.84 as a percentage =

7) 435.3 / 100 =

8) 3 squared + 2 x 7 =

Georgia O'Keeffe

Georgia O'Keeffe was a famous and influential American artist, best known for her paintings of flowers, skyscrapers and the landscape of New Mexico.

Early Life

For an artist whose style would go on to be internationally recognisable, Georgia came from humble beginnings; she was born on 15th November 1887 on a wheat farm in Wisconsin, USA and as the second of seven children she was rarely lonely growing up. Although there were many chores to do on the farm, she was never without a sketchbook in her hand because the natural world of the farm fascinated her (she was deeply affected by the landscape of Wisconsin, which became evident in her later work). By the age of ten, she had decided that she wanted to be an artist in order to express the beauty she saw around her and her mother, Ida, encouraged Georgia's love of art by arranging for her to have art lessons.

Georgia left her modest home to go to art school in Chicago, followed by New York, where she studied painting. Finally, she moved to Texas to teach art but she continued drawing. It wasn't easy being a woman artist at this time; most famous artists were men and it was difficult to convince people to take female artists seriously. She sent some of her charcoal line drawings to a friend, who showed them to a famous photographer, Alfred Stieglitz. Alfred recognised Georgia's potential and saw that her drawings were very different to any other art being made in America at the time. So, he took a risk and **exhibited** them in his gallery in 1916; Alfred and Georgia later married.

A New Way of Seeing

Georgia noticed that in New York people were always in such a rush that they rarely stopped to appreciate the beauty of small things, like a flower. She said to herself, "If I could paint the flower exactly as I see it, no one would see what I see because I would paint it small like the flower is small." Instead she decided, "I'll paint what I see – what the flower is to me but I'll paint it big and they will be surprised into taking time to look at it – I will make even busy New Yorkers take time to see what I see of flowers."

This is just what Georgia did – she painted tiny, delicate flowers on a huge, magnified scale. Her use of bold, vivid oil paints and gigantic canvases shocked people into paying attention and seeing the world as Georgia saw it. Although viewers often couldn't work out what they were looking at, this only added to the appeal of her paintings. She was one of the first American artists to paint in this intriguing, **abstract** style – a style of art that uses shape, lines and colour in a way that does not show things as they are. Her paintings became very popular and she became successful.

It wasn't only the wonders of the natural world that interested Georgia. She was also inspired by the tall skyscrapers of New York City; these buildings filled her with awe and made her feel small and insignificant, in the same way that nature did. She painted the towering skyscrapers from below – as a child would see them. Again, people were impressed to see such ordinary things presented in such an innovative way.

In 1929, Georgia visited New Mexico and the wide, open landscape transported her straight back to her childhood. She was overwhelmed by the incredible rock formations, the unusual light, the bones of animals dried out by the sun and the Navajo culture, which is the art, music and clothing of the Native American people of the Southwestern United States. The paintings she produced in New Mexico added to her success.

Artistic Legacy

In her astonishing lifetime, Georgia painted thousands of paintings that have now been exhibited in galleries worldwide. Her legacy is that she is remembered as one of the greatest American artists of the twentieth century and has been called the 'Mother of American Modernism' (art that departs from more traditional styles).

In 2014, one of Georgia's artworks set a new auction record for a painting by a female artist, when it sold for 44.4 million dollars, or 28.8 million pounds! The painting can now be seen, alongside many of her others, at the Georgia O'Keeffe Museum in Santa Fe.

Questions

1. Which words describe Georgia's beginnings? Tick two.

   ○ unhappy

   ○ humble

   ○ lonely

   ○ modest

2. Draw lines to match up these sentences about Georgia's subjects.

Flowers	Made people look at the city in a new way.
New Mexico	Painted landscapes and natural objects.
New York	Painted up close to make people pay attention.

3. Find and copy two words that describe how the buildings of New York City made Georgia feel.

   _____

4. Fill in the missing words.

   Georgia painted flowers with _____ on huge _____.

5. What record did Georgia's artwork set in 2014?

   _____

6. Why do you think the second section of the text is called *A New Way of Seeing*?

   _____

   _____

7. What are the main similarities and differences between Georgia's three main painting subjects?

   _____

   _____

   _____

8. Explain why you think Georgia has been called *The Mother of American Modernism*.

   _____

   _____

9. *So, he took a risk and exhibited them in his gallery in 1916...*

   Explain why you think exhibiting Georgia's drawings meant Alfred was taking a risk. Give two reasons.

   _____

   _____

   _____

10. Imagine you are an art critic at the time that Georgia's paintings first appeared. Write a short review of the paintings, explaining how they make you feel.

   _____

   _____

   _____

1 The diagram shows four angles formed by two straight lines.
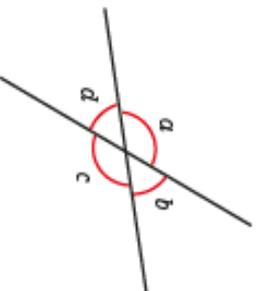
a) Measure the sizes of the angles.

$a =$ ☐ $b =$ ☐ $c =$ ☐ $d =$ ☐

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

Explain why.

_____

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.

☐   ☐   ☐   ☐

3 Work out the sizes of the unknown angles.
Give reasons for your answers.

a)

$y =$ ☐ because _____

b)
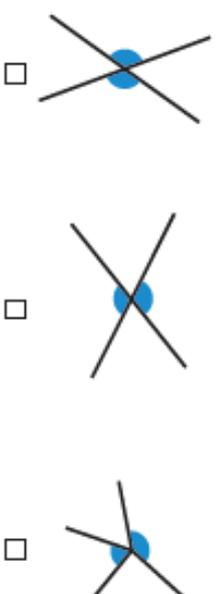
$z =$ ☐ because _____

Compare answers with a partner.
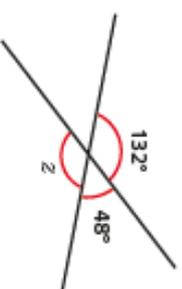
4 Annie is working out the size of angle f.

79°

f
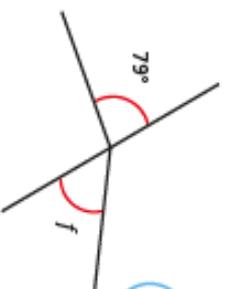
Angle f is equal to 79° because vertically opposite angles are equal.

Do you agree with Annie? _____

Explain your answer.

_____

_____

5 Work out the unknown angles.

a)

133°

a

$a =$ ☐

b)

73°

b

$b =$ ☐

c)

c

52°

$c =$ ☐

d)

81°

65°

d

$d =$ ☐

e)

81°

e

$e =$ ☐

f)

113°

f
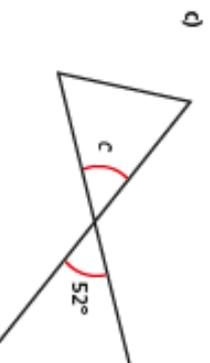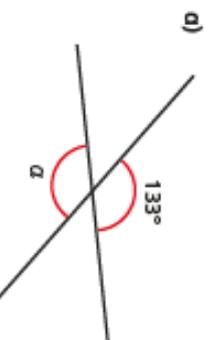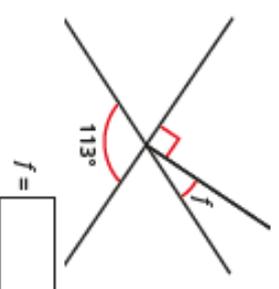
$f =$ ☐

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

90°

a

b

Work out the sizes of angles a and b.

$a =$ ☐ $b =$ ☐

Talk about your reasons with a partner.
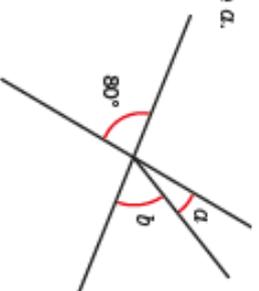
7 Angle f is one quarter of the size of angle g.

Angle f is 28°.

x

g

f

y

139°
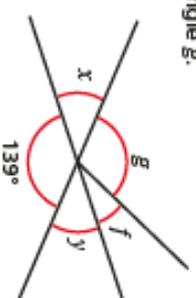
Are angles x and y vertically opposite? _____

Explain your answer.

_____

_____

Angles in a triangle

1 Here is a triangle.
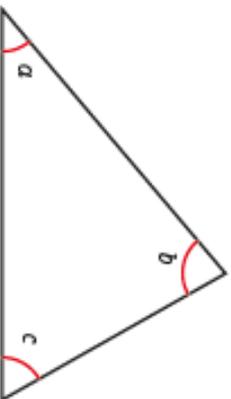
a) The three vertices are torn off the triangle and arranged on a straight line.

What is the sum of the three angles?

How do you know?

b) Now measure the sizes of angles a, b and c in the triangle.

$a =$ ☐ $b =$ ☐ $c =$ ☐

c) What is the total of angles a, b and c?

d) Complete the sentence.

Angles in a triangle _____

2 Work out the sizes of the unknown angles.
Give reasons for your answers.

a)
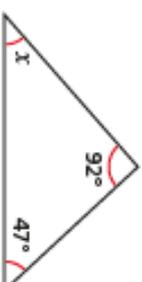
$x =$ ☐ because _____

b)
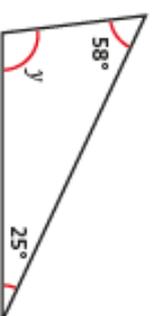
$y =$ ☐ because _____

c)

$z =$ ☐ because _____

d)

$w =$ ☐ because _____

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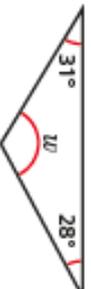
3 Work out the unknown angles.

a)

$q =$ ☐

b)

$r =$ ☐

c)

$s =$ ☐

d)

$t =$ ☐

4

a) Two angles in a triangle are 42° and 57°.
   What is the size of the third angle? ☐

b) Two of the angles in a triangle are 12°.
   What is the size of the third angle? ☐

c) One of the angles in a triangle is 38°. Another angle is twice the
   size of the first angle.
   What is the size of the third angle? ☐
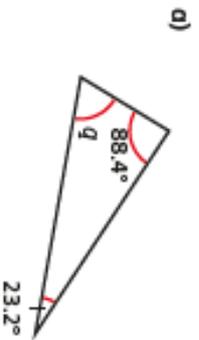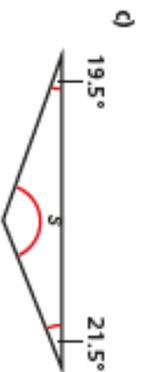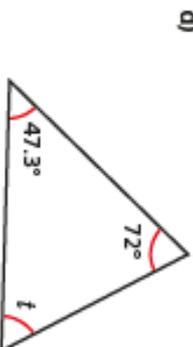
Discuss your reasons with a partner.

5 Sort the triangles into the table.
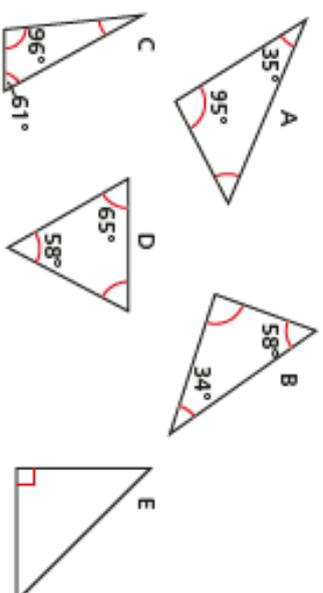
0 acute angles	1 acute angle	2 acute angles	3 acute angles

Are any of the columns empty? Why?

_____

6
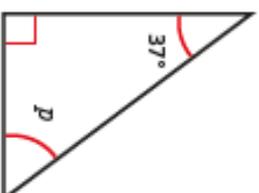
$p = 143°$ because angles
in a triangle sum to 180°
and $180 - 37 = 143$

Do you agree with Ron? _____
Explain your answer.

_____

_____

Angles in a triangle – special cases

1 Here is a triangle.
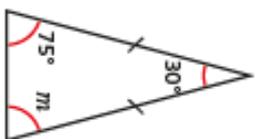
a) What type of triangle is it?

_____

How do you know?

_____

b) Work out the size of angle *m*.

c) What do you notice?

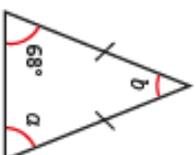d) Complete the sentence to describe the angles in an isosceles triangle.

In an isosceles triangle _____

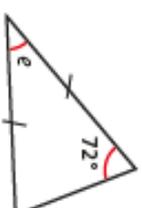**2** Identify and label the angles that will be equal in each triangle.

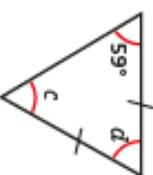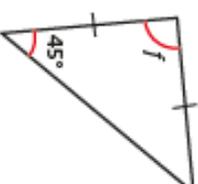**3** Work out the sizes of the unknown angles.

a)

a = ☐ *b* = ☐

c)

e = ☐

b)

c = ☐ *d* = ☐

d)

f = ☐

Talk about your reasons with a partner.

4 Dexter is working out the unknown angles in triangles.
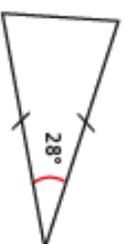
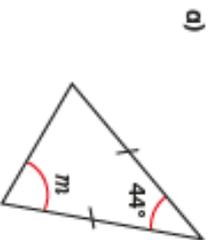*I can't work out either of the missing angles because I don't have enough information.*
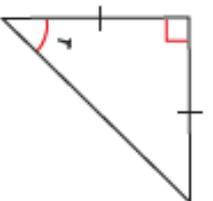
Do you agree with Dexter? _____

Explain your answer.
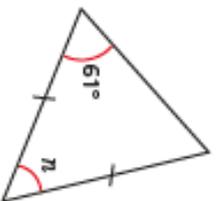
_____

5 Work out the sizes of the unknown angles.

a)

44°

m

$m =$ ☐

b)

61°

n

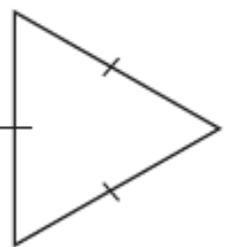$n =$ ☐

c)

r

$r =$ ☐

d)

60°

s
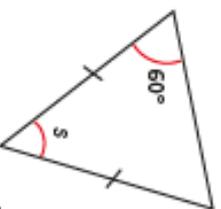
$s =$ ☐

6 Whitney and Jack are working out the angles in this triangle.

I can't work out the angles in this triangle because I don't know any of them.

Whitney

I know the size of all the angles in this triangle.

Jack

Who do you agree with? _____

Talk about it with a partner.

7 Are the statements true or false?

a) Every isosceles triangle is equilateral. _____

b) Every equilateral triangle is isosceles. _____

c) A right-angled triangle can be equilateral. _____

d) A right-angled triangle can be isosceles. _____

Explain your answers to a partner.

8 Two angles in a triangle are 43° and 74°.

Is the triangle isosceles? _____

Show your workings.

9 One angle in an isosceles triangle is 29°.

What could the other angles be? Give two possible answers.

_____

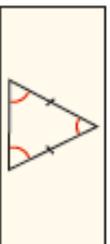**10** Angle b is twice the size of angle a.
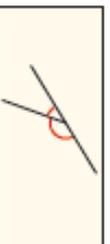
Work out the size of angle c.

b a c

☐
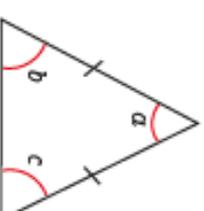
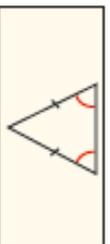**1** Match each diagram to the correct rule.

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
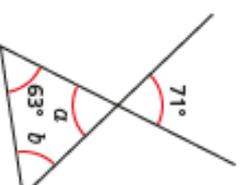
Vertically opposite angles are equal

2 Work out the sizes of the unknown angles.
Give reasons for each stage of your working.

a)

71°
63°
a
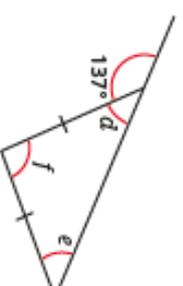b

$a =$ [ ] because _____

$b =$ [ ] because _____

b)

137°
d
f
e

$d =$ [ ] because _____

$e =$ [ ] because _____

$f =$ [ ] because _____

c)

i
h
g
309°
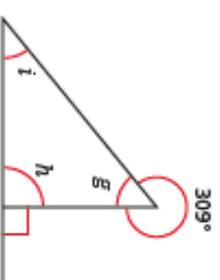
$g =$ [ ] because _____

$h =$ [ ] because _____

$i =$ [ ] because _____

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

a)

84° 131° *p*

p = ☐

b)

34° *q*

q = ☐

c)

r

r = ☐

d)

122° *s* 41°

s = ☐

e)

71° 128° *t*

t = ☐

f)

52° *u*

u = ☐

g)

49° 72° *v*

v = ☐

h)

w 25°
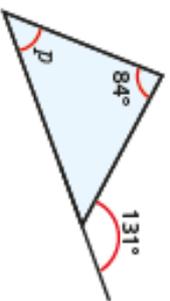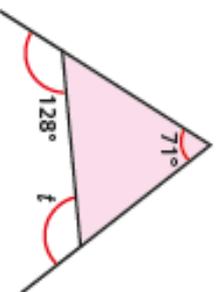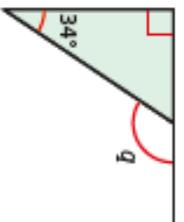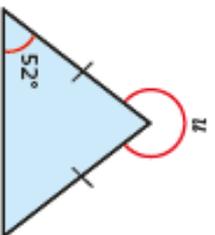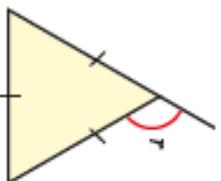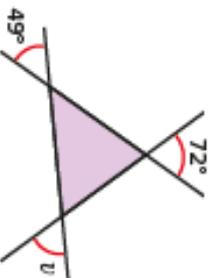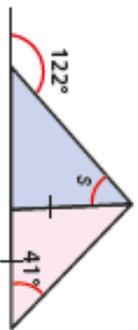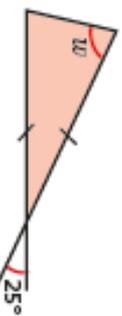
w = ☐

Talk about your reasons with a partner.

4 Work out the sizes of the unknown angles.

a)

70.5° 87.2° *c*

c = ☐

b)

115.6° 99.9° *d*
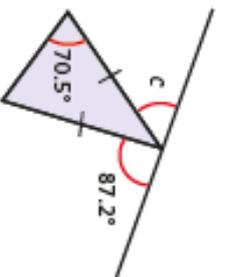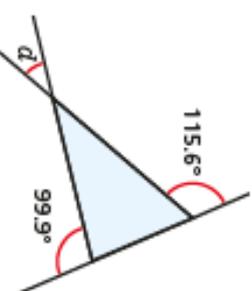
d = ☐

5 Work out the size of angle *x*.

37° *x* 48°
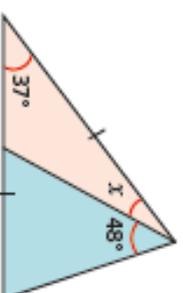
x = ☐

6 Here is an isosceles triangle.

Find two possible sizes of angle *y*.

61° *y*
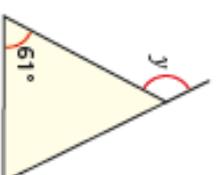
y = ☐ or ☐

Challenge 1

Can you work out the values of each shape?

$$\bigstar + \bigstar = 20$$

$$\heartsuit - \bigstar = 7$$

$$\heartsuit - \heartsuit = \triangle$$

Challenge 2

Tom has six 10p coins and three 5p coins. He buys an apple for 59p and two pencils.

He has no money left. How much does a pencil cost?

59p
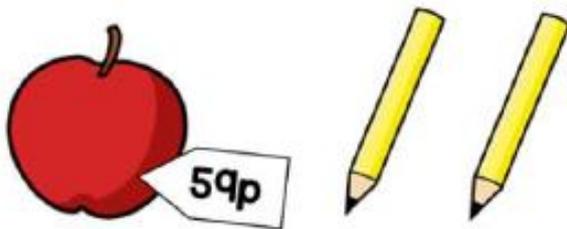
Challenge 3

Here are some digit cards.

Amir and Donna each make a three-digit number using all the cards.

Amir notices that when he subtracts his number from Donna's number he gets an answer greater than 300 but less than 400.

What numbers did they make?

Challenge 4

Five identical rectangles are put together to make a large rectangle.

The width of one rectangle is 4cm. Work out the perimeter of the large rectangle.
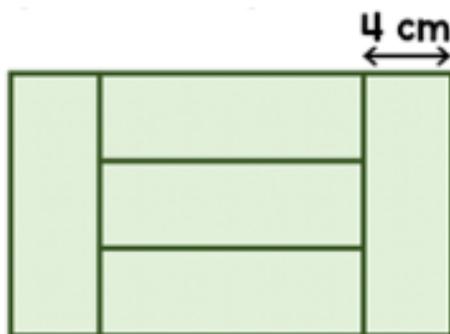
Challenge 5

15 identical blocks are lined up as shown.

112 cm
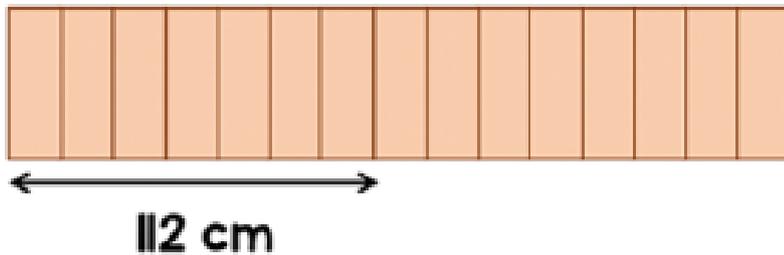
The length of each individual block is twice the width.

If all 15 blocks are then laid end to end lengthways, what is the total length of the blocks altogether now?

Extraordinary Lives:
Mary Anning

A keen palaeontologist, Mary Anning discovered fossils which have influenced and enhanced our understanding of dinosaurs and their environment. As a woman living in the patriarchal society of 19th century England, she was never properly acknowledged or rewarded during her lifetime for her significant scientific discoveries.

A portrait of Mary Anning and her dog, Tray.

Early Life

Mary Anning was born in 1799 to Richard and Molly Anning, a couple who had moved to the town of Lyme Regis in Dorset just a few years previously. Mary was one of ten children born to the Annings, although the vast majority of them did not survive infancy; Mary was, in fact, named after a sister whom she never knew, who had died months before in an accident at the family home – her dress caught fire and she burned to death.

This dramatic event was followed by another extraordinary occurrence when Mary was just a baby: she was with a group of women standing underneath a tree when lightning struck them. All three women were killed instantly, but the baby Mary was revived. Her family claimed that this shock transformed her completely – they maintained that she became much more lively and intelligent following the lightning strike.

Life for the Anning family was difficult, as it was for many families at the beginning of the 19th century. The French Napoleonic Wars (fought between European countries and England against France) meant that there were food shortages and many people struggled to find enough money to pay the rising costs of food. Richard was a furniture maker, but he would supplement his income by running a fossil shop from a street stall. As a family, the Annings would search the nearby cliffs for fossils and then sell them to visitors to the town as souvenirs. Because of the wars in Europe more people were holidaying in England, so there were many tourists.

Fossil collecting had become a fashionable pastime. Richard taught Mary and her brother Joseph how to recognise and identify fossils, and she quickly became a keen and astute collector. Sadly, in 1810 Richard died of tuberculosis, with complications from injuries he had sustained when falling from a cliff while searching for fossils. The family were left in dire financial straits; Joseph managed to get a job as an apprentice, while Mary doubled her fossil-collecting efforts.

How are fossils formed?

Fossils are formed when animals die and their remains become covered with layers of dirt or sand. Over time, these layers build up and become compressed and hardened into rock, and an impression of the animal is left. This is a process which takes place over millions of years. Fossils can also be of plant matter – or even poo!

The section of Dorset coast where Lyme Regis is located is known as the Jurassic Coast, because it has layers of limestone and shale sedimentary rock in which many fossils from the Jurassic period have been found. Over the past 200 million years the area has been desert, sea and marshland – so it has a wealth of different animals and plants preserved in its rocks. The ebb and flow of the tide uncovers new fossils all the time, and it is a popular destination for fossil hunters.

Fossil Discoveries

Anning's most common find were ammonites and belemnite shells – examples of invertebrate fossils. However, in 1811, she and her brother Joseph found the skeleton of an ichthyosaur – a large, prehistoric marine reptile – on the cliffs around Lyme Regis. As well as earning the family a much-needed sum of money (£23), it caused shock waves in the scientific community, as it was such a substantial and unusual find.

Mary continued her work looking for fossils, often putting herself in considerable danger, as cliffs could crumble without warning. (Indeed, on one outing with her dog Tray in 1833, there was a landslide and she narrowly escaped being crushed. Her dog was buried alive in front of her eyes.)

In 1823, Anning found the first complete skeleton of a plesiosaur – a Jurassic marine reptile. A few years later, in 1826, she had made enough money from her discoveries to buy a proper shop with a glass front. She opened Anning's Fossil Depot, and displayed the skeleton of an ichthyosaur in the window.

She continued to make astounding discoveries in her fossil hunts: in 1828 she uncovered a Pterosaur (flying reptile) skeleton, and in 1829, a squaloraja (fish) skeleton.

Mary Anning found the first complete plesiosaur skeleton.

Scientific Standing

Anning had a highly scientific mind and was adept at uncovering, identifying and recording fossils. She became known as an expert and was consulted by many leading geologists and palaeontologists of the time, including George Featherstonhaugh, Henry De La Beche, William Buckland, William Conybeare and Thomas Hawkins. Despite her considerable expertise, her work was not formally acknowledged because she was a woman. She was refused admittance into the Geological Society of London (they wouldn't admit any women at all until 1904). Often, Anning would advise her male counterparts on fossils, but they would accept the credit for themselves. Anning became quite disillusioned and bitter about the way she was ignored by the scientific community, simply because she was a woman.

One noted palaeontologist, Charles Cuvier, even disputed her find of a plesiosaur, and maintained it was a fake. The Geological Society met to consider the fossil – without Anning, as she was a woman! – and Cuvier was eventually forced to admit his mistake.

One of the reasons Anning's finds were so groundbreaking was that up until then people had had very little understanding of how the earth was formed. People mostly believed the Biblical story of creation, and the idea of extinct species had only just been suggested as a possibility. These new and outlandish skeletons shook up people's understanding of how the earth had formed.
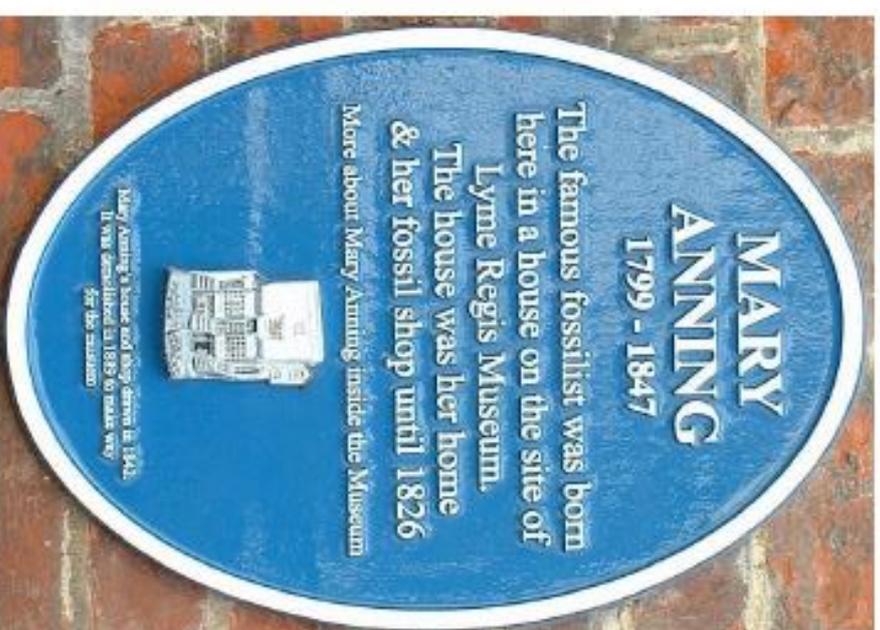
As well as being instrumental in the identification of dinosaurs, including the ichthyosaur and plesiosaur, Anning was also an expert on coprolites – fossilised poo!

Despite her numerous ground-breaking scientific discoveries, Anning was still struggling financially. As some acknowledgement of her work, in 1838 she was granted a £25 annuity by the British Association for the Advancement of Science and the Geological Society.

Mary Anning in Numbers

1: piece of scientific writing by Anning published during her lifetime.

5: age at which Anning started collecting fossils.

6: length in meters of an ichthyosaur skeleton found by Anning.

27: age when Anning bought her first proper shop.

200: number of pounds she earned for finding a plesiosaur skeleton in 1830.

There is a plaque to commemorate Mary Anning outside where her house once stood.

MARY ANNING
1799 - 1847

The famous fossilist was born here in a house on the site of Lyme Regis Museum.
The house was her home & her fossil shop until 1826
More about Mary Anning inside the Museum

Mary Anning's house and shop drawn in 1842. It was demolished in 1889 to make way for the museum.

Death

In 1847, Anning succumbed to breast cancer. Although she never became a member of the Geological Society, they recorded her death – a tribute to work she had done – and the local parish made a stained-glass window for the church in her honour.

Image by: Fidelo

Hours and hours had passed, and she hadn't seen a soul. The monotony of trudging through this seemingly never-ending labyrinth was tiring, and her eyelids felt heavy. The heady scent of the pine sap and earthy moss added to her lethargic state. She felt as if she could close her eyes and sleep for a thousand years. She knew she couldn't though; being trapped in the woods when night fell wouldn't be a wise move. Making the most of the remaining daylight would be crucial, she knew.

A great sense of foreboding filled her, and she had a tight feeling in her chest. The trees around her, like sentinels protecting the gods of the forest, seemed to bear down upon her. The dense army of pine trees threatened her from every side. There was only one path forward, and she took it hesitantly, not knowing what awaited her in the distance...