Weekly learning pack

Year 6

English

Promise

You see them in doorways
you see them in parks
there are so many of them
that after a while
you don't even notice them
We were in Nottingham
and one of them
played a tune on a toy xylophone
and Mum put a five pound note
in his cup
Mum says
as you grow up
you'll find that life doesn't always turn out
as planned
You have to help people
if you can

Roger Stevens

Reading

Read the Poem 'Be the Change'

1. Who is the poem talking about?

2. How does mum help?

3. Why do you not notice them?

4. Why does mum say you should help people?

Extension: Find out about the homeless charity Crisis. What do they do and how do they help? **Create a leaflet to share what you find.**

<u>Task 2</u>

Writing

Write your own poem about a time you have helped someone in need. Use this space to jot down some ideas.

Grammar

Circle the four prepositions in this sentence.
On a mountain bike, you can cycle across rocky ground, along muddy paths and over harsh terrain.

Circle the three verbs in the passage below.
There were hundreds of gulls circling in the sky. They gathered near the dock, searching for scraps.

Circle the possessive pronoun in this sentence.
When Mum saw that I was wearing Oliver's gloves, she wanted to know where mine were.

Underline the subject of the sentence below.
The tightrope walker carried a balancing pole.

Rewrite the two sentences as one sentence using an appropriate co-ordinating conjunction.
We have time to play a game. We will have to finish it before dinner

<u>Task 4</u>

Spelling

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

foreign	harass
forty	hindrance
frequently	identity
government guarantee	immediate(ly)

Maths

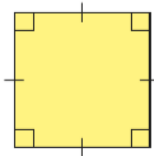For the following maths slides, there is an online lesson and answers that you can find at:

https://whiterosemaths.com/homelearning/year-6/

Task 1

Angles in special quadrilaterals

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.
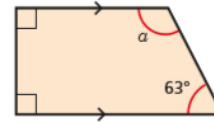
b *c* *a* *d*

d *a* *c* *b*
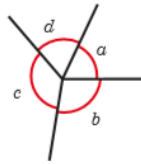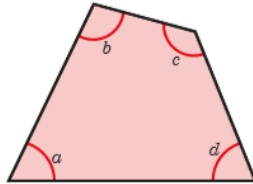
What do the diagrams illustrate about the sum of the angles in a quadrilateral?

Complete the sentence.

Angles in a quadrilateral _____

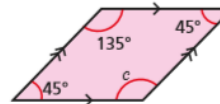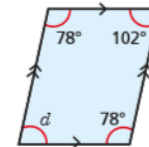**3** Work out the size of the unknown angle in each trapezium.

a)

a

63°

b)

57° *b*

123° 123°

$a =$ [   ]
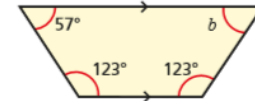
$b =$ [   ]

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

4 Work out the sizes of the unknown angles.

a)

45°
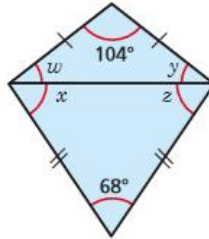
135°

c

45°

b)

78° 102°

d 78°

$c =$ [   ]

$d =$ [   ]

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

_____

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5 Two isosceles triangles are joined to form a kite.

a) Work out the sizes of the unknown angles.

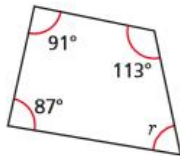$w =$ ☐ $y =$ ☐ $x =$ ☐ $z =$ ☐

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)

b)

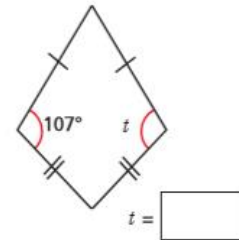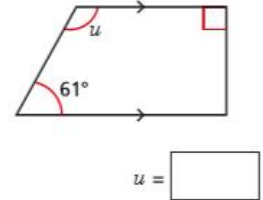$r =$ ☐ $s =$ ☐

c)

d)
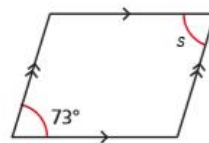
$t =$ ☐ $u =$ ☐

Compare your reasoning with a partner.

7 Teddy is drawing a quadrilateral.

My quadrilateral has exactly three right-angles.

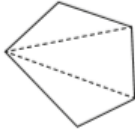Is Teddy's quadrilateral possible? _____
Explain your answer.

_____
_____

Task 2

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?
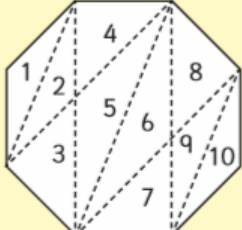
2 Complete the table.

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.

10 × 180 = 1,800°

Do you agree with Dani? _____

Explain your answer.

Task 2

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)

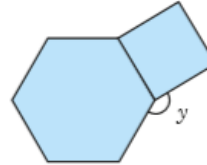My polygon has more sides than Rosie's but fewer than Amir's.

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)

$y =$ ☐

b)

$y =$ ☐

c)

$y =$ ☐

d)

$y =$ ☐

e)

$y =$ ☐

f)

$y =$ ☐

Activate Windows

Problem Solving

1 A car park is full.

- $\frac{1}{3}$ of the cars leave

- 60% of the remaining cars are red.

There are 174 red cars.

How many cars left the car park?

2 Mo has some red and green sweets.

- He eats $\frac{1}{3}$ of the sweets.

- $\frac{3}{4}$ of the sweets left over are green.

- Mo buys himself 30 more green sweets.

There are now 162 green sweets.

How many sweets did Mo start with?

Problem Solving

3 Eva has £6.05 in a moneybox.

She only has 20p, 10p and 5p coins.

For every two 10p coins in the box, Eva has one 20p coin and three 5p coins.

How many of each coin does Eva have in her moneybox?

4 Dexter has to make the scales read between 250 g and 300 g.

He only has 10 g, 25 g and 50 g weights.

He has to use at least one of each weight.

For every three 10 g weights on the scales, Dexter uses one 25 g weight.

What combinations could he use?

Problem Solving

White Rose Maths

1 A rectangle is cut into two pieces.

6 cm | A   B

The area of B is $\frac{2}{7}$ of the area of the rectangle.

The area of A is 36 cm² greater than the area of B.

What is the length of the rectangle?

2

A   B

The area of B is 40% of the area of the rectangle.

A is cut in half to make shape C and D.

The area of B is 8 cm² greater than the area of C and D.

What is the area of the whole rectangle?

Problem Solving

⏸ Your turn

White Rose Maths

3 Tommy is getting a taxi home.

The taxi company charges at the following rate.

Taxi Fares	
First 5 mins	£3.80
Next 5 mins	£3.10
Every following minute	40p

The taxi leaves school at 3.47 p.m.

It arrives at Tommy's home at 16.04

How much does the fare cost?

4 Eva is getting a taxi home.

The taxi company charges at the following rate.

Taxi Fares	
First 3 km	£3.80
Next 5 km	£3.10
Every following km	40p

This is her journey home.

2 km
1.3 km
4.9 km
2,800 m
300 m
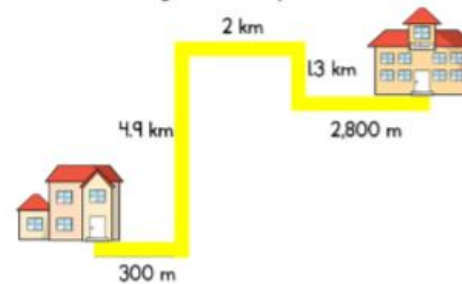
How much does the fare cost?

Curriculum

(History)

Task 1

How much can you find out about rationing? Answer the questions below in as much detail as possible.

When did rationing start and end?

Make a list of foods that were rationed and the amount that people were able to buy:

What else was rationed apart from food?

Which foods were not available in Britain during the war?

Explain what the Dig For Victory campaign was and how it helped people:

What does the slogan 'Make Do and Mend' mean?

How did the war affect British farmers?

Science
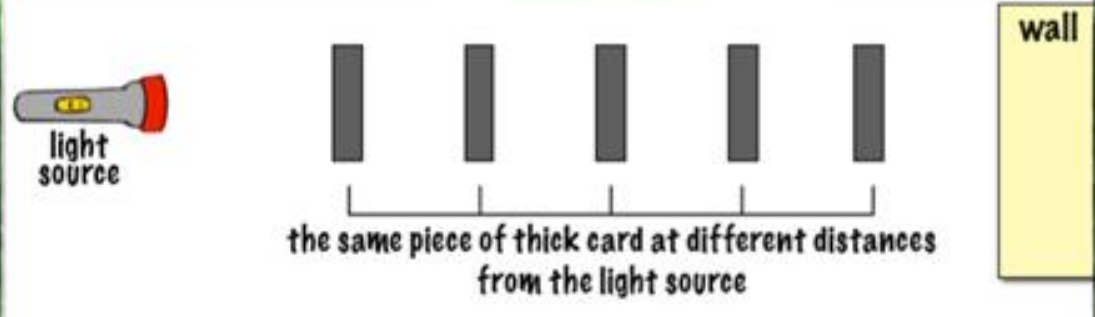
Today you will be carrying out an investigation to find out how shadows can change and why.

One question you could test would be to find out what happens to the shadow when the light source is at different distances from an opaque object.

wall

light source

the same piece of thick card at different distances from the light source

How would you carry out this experiment?

How would you make sure this experiment was a fair test?

What do you predict the outcome of this experiment would be?

Discuss the questions with someone at home, or make notes on some paper.

Shadow Investigation

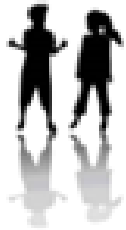What happens to the size and shape of a shadow when an object is placed further away from the light source?

You will need:

A wall   An opaque   A ruler
A torch   object

How to carry out your experiment:

1. Set a torch on the floor 1 metre away from the wall.
2. Place an opaque object 10cm from the torch.
3. Measure the size of the shadow on the wall.
4. Repeat for each distance.

Draw a diagram of your experiment:

Results:

Distance from torch	10cm	30cm	50cm	70cm	90cm
Size of shadow					

Complete the investigation, remember to record your results.

Once you have completed the investigation write a conclusion to explain what you found out.

Task 1

Title:

10cm	20cm	30cm	40cm	50cm	60cm	70cm	80cm	90cm
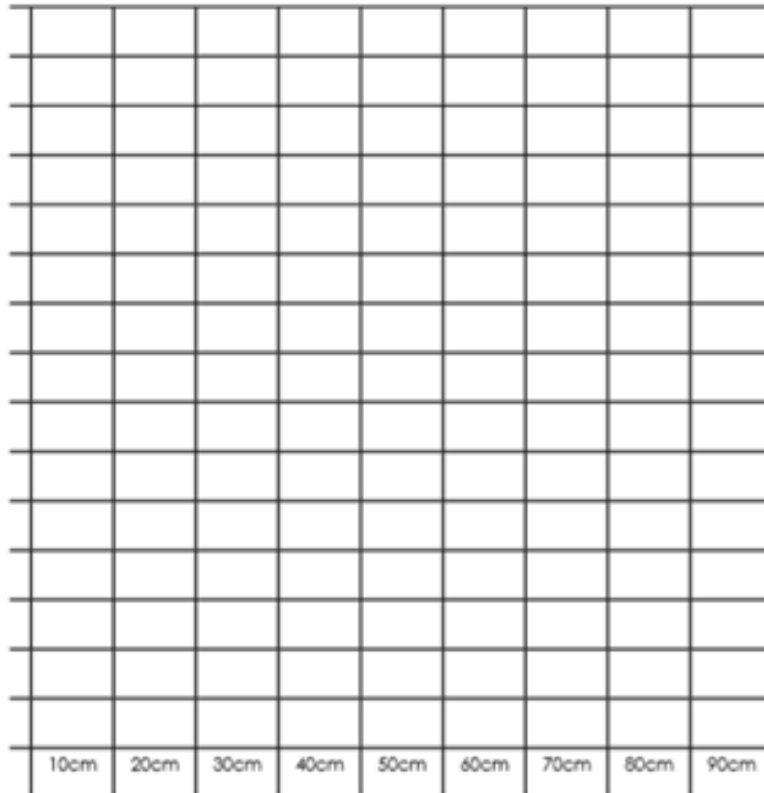
Draw a graph like this to show your results. Remember to label the axes correctly.

RE

How Muslims should worship God is about the way Muslims lead their lives as well as the five pillars. You should be able to remember some things about the five pillars.

Now watch BBC Learning clips 3031 online 'What does it mean to be a Muslim' This clip outlines the Muslim belief in heaven.

https://www.bbc.co.uk/bitesize/clips/zwvq6sg

Using what you know about the five pillars (use the internet if you have forgotten) and what you have learnt from the clip about Muslims beliefs explain what motivates them to live a good life.

Task 1

House of Islam

Shahadah

You become Muslim by saying the shahadah:

La illah illah lahu Muhammadar rasulullah.

There is no god but Allah and Muhammad is the messenger of Allah.

Muslims believe in Allah with all His 99 names.

Salat

Muslims perform five daily prayers (salah)

at different times in the day facing Makkah. These times are at dawn (fajr), noontime (zuhr), afternoon (asr), sunset (maghrib) and evening (esha).

Sawm

Muslims fast in the month of Ramadan (ninth month of the Islamic calendar). We do not drink or eat during daytime. We pray a special prayer called Taraweeh and celebrate Eid ul-Fitr at the end of Ramadan.

Zakat

Muslims have to pay charity to the poor and needy. They need to give at least 2.5% of their money to the poor and needy.

This is compulsory charity but you can also give Sadaqa (voluntary charity).

Hajj

Muslims have to go to Makkah at least once in their lifetime (if they can afford to). We remember the story of sacrifice by Prophet Ibrahim during this time and celebrate Eid ul-Adha.