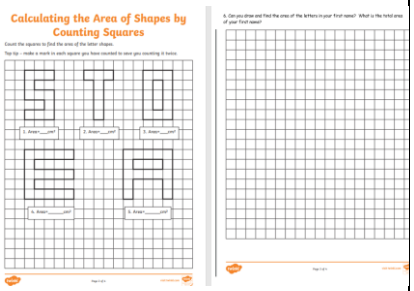
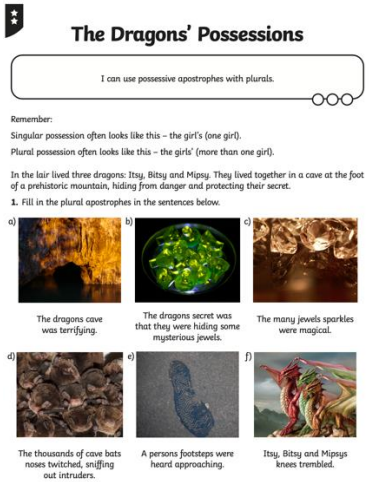
Year 4 Homework Grid

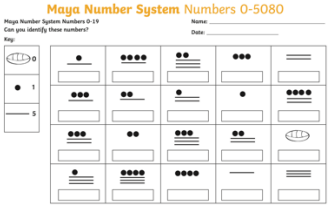
Your homework activities for this term are on the grid below. You can choose to complete the activities in any order; most of the learning activities are linked to our current topic so you should already have lots of knowledge about the areas of study! Make sure that you ask someone at home to help you if you find any of the activities too tricky and always ask an adult to accompany you with any outdoor activities.

- ✓ Complete activities in your Homework book
- ✓ Complete at least one activity every 2 weeks
- ✓ Remember you have the whole term to complete all tasks
- ✓ Homework folders are due back to school every Wednesday for your teacher to look at your work
- ✓ You will be set one activity page each week from the English CGP book and one from the White Rose Maths book (your teacher will let you know the page numbers)
- ✓ In addition to these activities, practice your spellings on a regular basis and try and find some time to read each day

Additional Maths activity: Feel free to also complete any of the additional Maths activities if you would like an extra challenge!

1. English	2. Mathematics	3. Science	4. Art	5. Geography
Research the Ganges River. Use your findings and our work in class to write a non-chronological report about the river. You can do this in your book or use the template at the back. **Non-Chronological Report** 	As we will be learning how to calculate Area, use the squared paper and find the area of your name. See sheets at the back of this pack.  	We will be learning about sound in science. This will deepen your understanding about sound and vibrations. Dancing rice You will need: • Bowl • Plastic wrap • Uncooked rice grains • Metal spoon or a pot 1. Stretch plastic wrap tightly over the bowl like a drum. 2. Sprinkle a few rice grains on top. 3. Bang the pot or hit the spoon near the bowl (don't touch it). Watch: The rice jumps and "dances" because the sound waves make the plastic vibrate. Does louder banging make bigger jumps? What happens if the sound is far away?	In art, we will be looking at still life. Make a still life scene with items from your house and sketch what you see. Be sure to concentrate on adding tone by shading to represent light and shadow. 	In Geography we will be learning about rivers and rivers of the world. Complete the vocabulary matching game to test your knowledge on river vocabulary. **Rivers Vocabulary Matching Game** Match the word to its definition by writing the correct word in the box. bank, basin, dam, floodplain, erosion, tributary meander, mouth, reservoir, sediment, silt, source
Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:

1. English	2. Mathematics	3.Science	4. PSHE	5. DT
Complete the plural and possessive grammar activities.  **The Dragons' Possessions** I can use possessive apostrophes with plurals. Remember: Singular possession often looks like this – the girl's (one girl). Plural possession often looks like this – the girls' (more than one girl). In the lair lived three dragons: Itsy, Bitsy and Mipsy. They lived together in a cave at the foot of a prehistoric mountain, hiding from danger and protecting their secret. 1. Fill in the plural apostrophes in the sentences below. a) The dragons cave was terrifying. b) The dragons secret was that they were hiding some mysterious jewels. c) The many jewels sparkles were magical. d) The thousands of cave bats noses twitched, sniffing out intruders. e) A persons footsteps were heard approaching. f) Itsy, Bitsy and Mipsys knees trembled.	https://nrich.maths.org/7035 Visit the website. Can you use your multiplication and division knowledge to find out the rules that turn each of the lights on? 	Sound & Feel Experiment We will be exploring that sound is physical energy. You need • Speaker • Balloon Steps 1. Place balloon near speaker. 2. Play music with bass. Feel: The balloon vibrates with the sound. What do you notice? Is there a higher or lower sound? Why might this be?	What job do you want to do when you are older? Research the job and find out what you will have to do in order to get it (will you need GCSEs, to train, go to university, learn new skills) See template at the back of this pack.	 By using little equipment such as: Different kinds of seeds, some potting mix, some small clear plastic cups (2 per greenhouse , tape and some water Make a mini greenhouse. Can you use your greenhouse to grow seeds? Where is the best place to put the greenhouses to grow? https://outsidetheboxhomeschoolers.wordpress.com/2014/07/04/stem-activity-mini-greenhouses/
Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:

1. English	2. Mathematics	3. History	4. Art	5.Handwriting/spelling
 Choose a character or setting of your favourite book. Write a description of that character. Think carefully about: Their appearance How they act What is their behavior like? **For a setting, you might want to think about:** Describing the senses Descriptive devices such as: Similes, metaphors, personification and expanded noun phrases	Complete the operations activity https://nrich.maths.org/943 Put operations signs (+ or – or × or ÷) between the numbers 3, 4, 5, 6 to make the highest possible number and lowest possible number. How about trying with numbers 1, 2, 3, 4, 5 and 6? Can you improve your fluency by using TT Rockstars also?	Practise writing Mayan numbers (see information attached). Answer the questions on the next page, using Mayan numbers. 	In Ancient Maya, courageous Mayan warriors put on wooden masks as a way to intimidate their enemies. They believed that the masks would give them spiritual power and protect them from danger. Design a Mayan mask, using the template attached at the bac . You may want to make your mask using recycled materials.	Practise your handwriting whilst practising your spellings too! See attached worksheets **Year 3 and 4 Statutory Spellings** breath breathe build busy business calendar caught centre century certain
Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:	Signed (parent/ guardian): _____Date:

Year 4 Maths Home Learning Grid

Additional Maths challenges

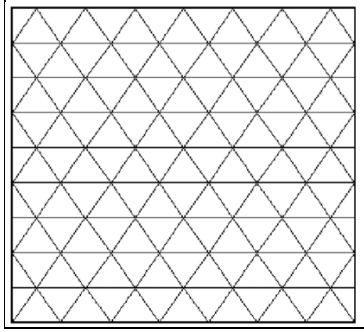
Write the short date and highlight when you complete a task.

https://nrich.maths.org/1058

Where are they?

Use the isometric grid paper below to find the following polygons.

- A rectangle
- A rhombus
- A trapezium
- A parallelogram that is not a rectangle
- An equilateral triangle
- A right angled triangle
- A scalene triangle
- An isosceles triangle that is not an equilateral triangle
- A pentagon
- A hexagon
- A heptagon
- An octagon



https://nrich.maths.org/12673

Always, sometimes, never

Are the following statements always true, sometimes true or never true?
How do you know?

Can you find examples or counter-examples for each one?

For the 'sometimes' cards can you explain when they are true? Or rewrite them so that they are always true or never true?

A hexagon has six equal length sides	Triangles have a line of symmetry
Squares have two diagonals that meet at right angles	Cutting a corner off a square makes a pentagon
The base of a pyramid is a square	A cuboid has two square faces

https://nrich.maths.org/7522

Class 5's names

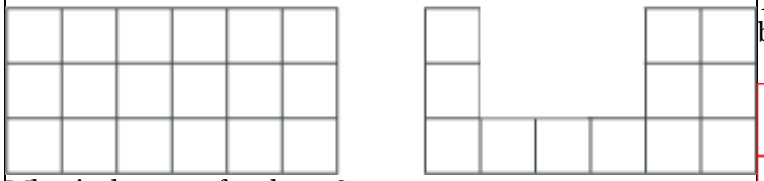
Class 5 were looking at the first letter of each of their names. They created different charts to show this information. Can you work out which member of the class was away on that day?

Girls in Class 5	Boys in Class 5
Hetty	David
Annie	Nelson
Tessa	Ali
Debbie	Jake
Willow	Harry P
Jess	William
Abby	Ben
Sindy	Tom
Penny	Dai
Bel	Arlo
Sara	Andrew
Pippa	Harry W
Selma	Tim
Becky	Joe
Mel	Alan
Pauline	James
Netty	Jeff
	Mohammed

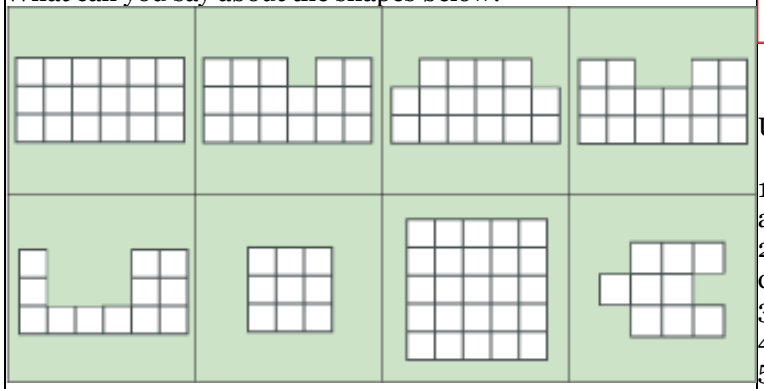
https://nrich.maths.org/7280

Area and perimeter

What can you say about these two shapes?



What is the area of each one?
What is the perimeter of each one?
What can you say about the shapes below?



You can print out a set of shapes and cut them into separate cards. These cards have the coloured background.

Can you draw a shape in which the area is numerically equal to its perimeter? And another?
Can you draw a shape in which the perimeter is numerically twice the area?
Can you draw a shape in which the area is numerically twice the perimeter?
Can you make the area of your shape go up but the perimeter go down?
Can you make the perimeter of your shape go up but the area go down?

Can you draw some shapes that have the same area but different perimeters?
Can you draw some shapes that have the same perimeter but different areas?

https://nrich.maths.org/5949

How much did it cost?

Dan bought a packet of crisps and an ice cream.

The cost of both of them together is in one of the boxes below.

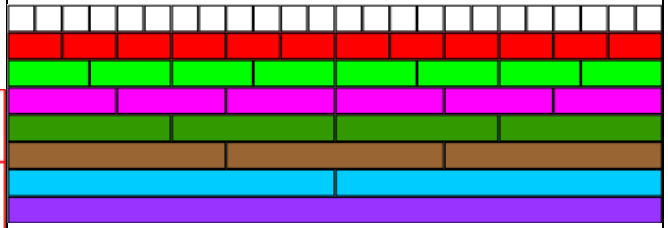
£1.85	75p	£1.74	£2.25	£1	£1.56
£2.10	80p	£1.80	£3.06	£1.44	£1.50
£1.60	£1.25	£1.20	90p	£1.45	£1.27

Use these clues to find out how much he paid:

1. You need more than three coins to make this amount.
2. There would be change when using the most valuable coin to buy them.
3. The crisps cost more than 50p.
4. You could pay without using any copper coins.
5. The ice cream costs exactly twice as much as the crisps.

https://nrich.maths.org/4519

Fraction wall



Using the image above, how many different ways can you find of writing 12?

From the picture, what equivalent fractions for 13 can you find?

Again, using the image of the fraction wall, how else could you write 34?

What other fractions do you know that are the same as 12?

Find some other fractions which are equivalent to 34.

Can you find any "rules" for working out equivalent fractions?

You might find it helpful to print off a picture of the fraction wall.

https://nrich.maths.org/10428

Round the dice decimals

There are three dice, each of them with faces labelled from 1 to 6.
When the dice are rolled they can be combined in six different ways to make a number less than 10 with two decimal places.

For example, if I roll a 2, a 3 and a 6, I can combine them to make 2.36, 2.63, 3.26, 3.62, 6.23 or 6.32.

Now round each of these numbers to the nearest whole number:
2.36 rounds to 2, 2.63 rounds to 3, 3.26 rounds to 3, 3.62 rounds to 4, 6.23 rounds to 6 and 6.32 rounds to 6.

Repeat for other rolls of the dice.

Can each of the six numbers round to the same whole number?
Can each of the six numbers round to a different whole number?

There are some interactive dice here that you can use for this problem.

https://nrich.maths.org/10326

Spiralling decimals

Have you noticed that some very long numbers are very big whilst other very long numbers are small? Can you think of an example of each?
Here's a game where you can test your skill at putting small numbers into the right order - it's not as easy as it sounds!

How to play

You need a partner, a copy of the game board, and two different coloured pencils.
Decide who goes first.
Take turns to choose a number from the grid and mark it on the spiral. Make sure you know where 0 and where 1 is!
Keep taking turns until one of you has marked three numbers next to each other.

0.5	0.25	0.75
0.35	0.9	0.99
0.1	0.01	0.05
0.64	0.32	0.54

https://nrich.maths.org/10490

Division rules

This challenge is about dividing a three-digit number by a single-digit number.

Begin by deciding which number you are going to be dividing by. This is your divisor.
Your challenge is going to be to come up with some rules for this divisor.

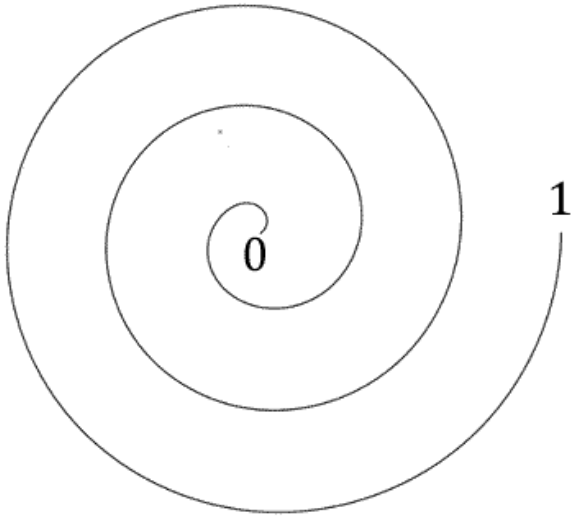
Now generate a three-digit number. This is your dividend.

You could use the spinners here to generate the digits, you could use dice or could just use your imagination!

Now divide your dividend by your divisor. Record the answer.

Create other dividends and divide them by the same divisor. Record the answers.

Look carefully at the answers. When is the answer a whole number? When is there a remainder of 1?
Can you spot any patterns?
Can you come up with any rules?



What next?

Can you work out a winning strategy?
Does it matter who goes first?
Does it matter which number you choose first?

Can you make up a different set of numbers which would make the game more challenging?
Perhaps you could have different start and end numbers for your spiral?

Spellings

This is a list of the spellings we have learnt so far in Year 4. It would be really helpful if you could practise them with your children to help them remember. The spelling rules have already been taught.

accident	calendar	eight	guide	mention
accidentally	caught	eighth	heard	minute
actual	centre	enough	heart	natural
actually	century	exercise	height	naughty
address	certain	experience	history	notice
although	circle	experiment	imagine	occasion
answer	complete	extreme	increase	occasionally
appear	consider	famous	important	often
arrive	continue	favourite	interest	opposite
believe	decide	February	island	ordinary
bicycle	describe	forward	knowledge	particular
breath	different	forwards	learn	peculiar
breathe	difficult	fruit	length	perhaps
build	disappear	grammar	library	popular
busy	early	group	material	position
business	earth	guard	medicine	possess

Non-Chronological Report

Title: _____

Introduction:

_____

_____

_____

_____

_____

Sub-heading: _____

_____

_____

Sub-heading: _____

_____

_____

_____

Fun Fact!

Sub-heading: _____

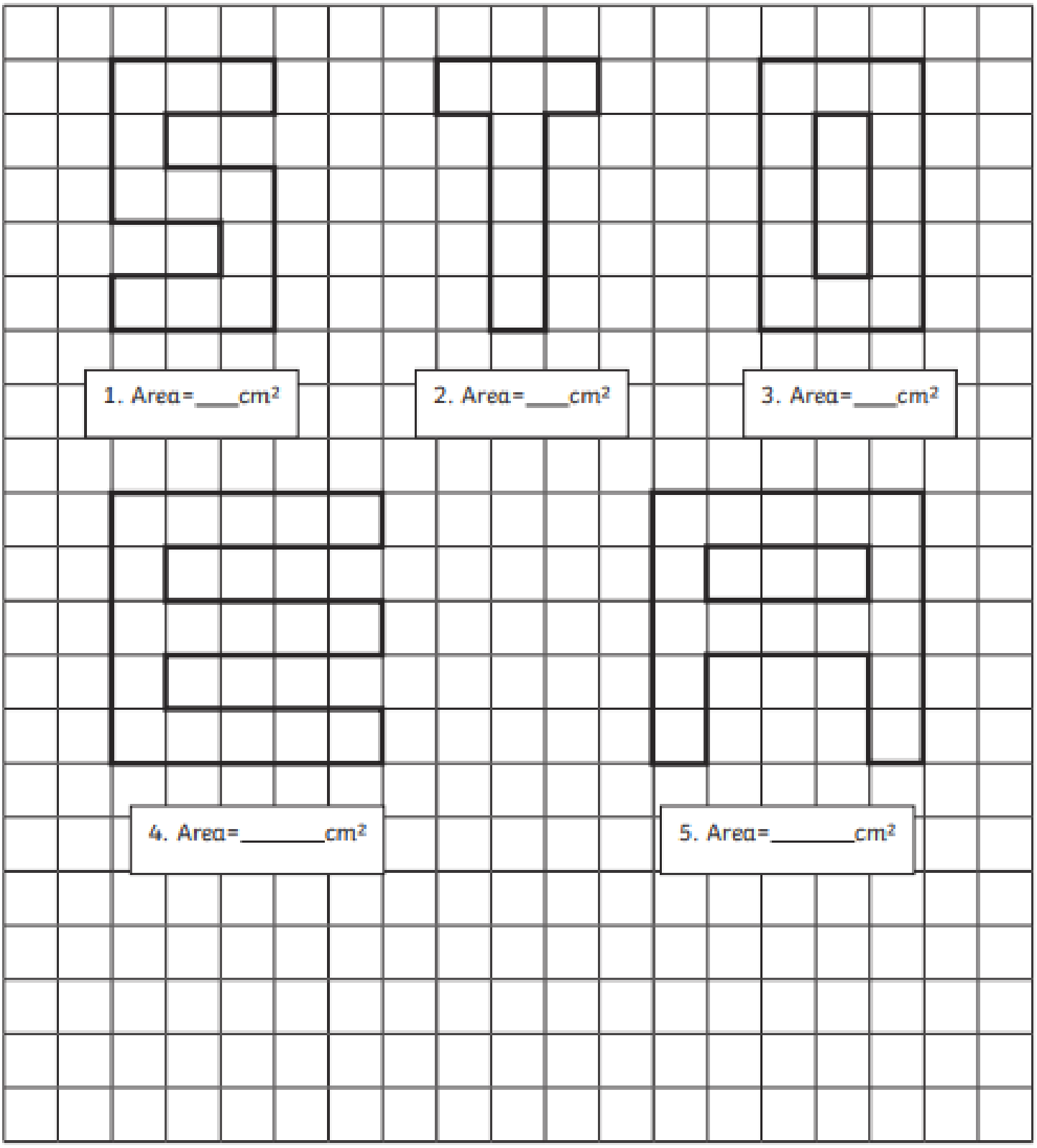
_____

_____

Calculating the Area of Shapes by Counting Squares

Count the squares to find the area of the letter shapes.

Top tip – make a mark in each square you have counted to save you counting it twice.



1. Area=____cm²

2. Area=____cm²

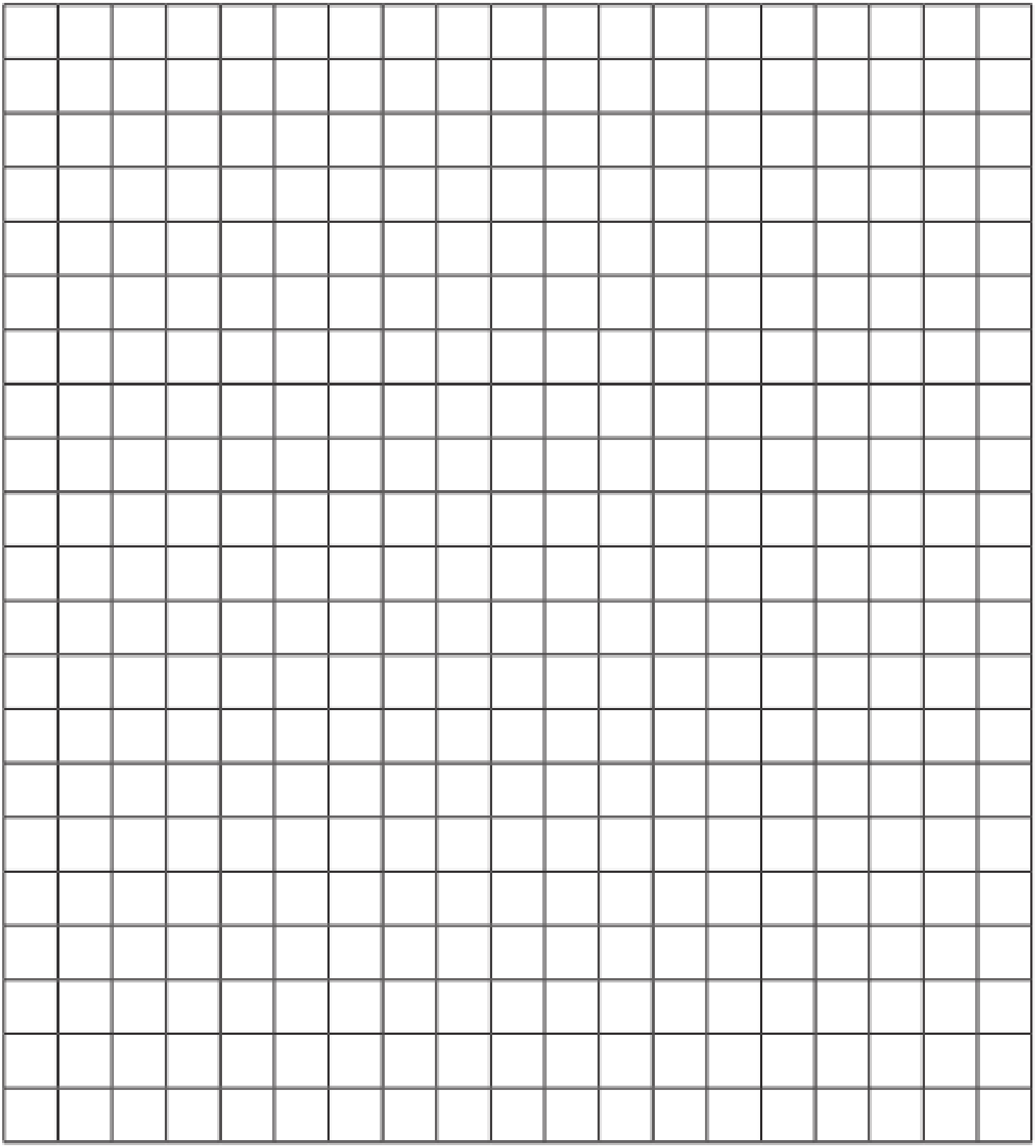
3. Area=____cm²

4. Area=_____cm²

5. Area=_____cm²

visit twinkl.com

6. Can you draw and find the area of the letters in your first name? What is the total area of your first name?



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★ My Career Goal ★

Career (e.g. doctor): _____

_____

Specialism/s (e.g. heart surgeon): _____

_____

Qualifications and/or training needed: _____

_____

_____

_____

Time it takes to qualify/train:

_____

_____

Skills and qualities required:

_____

_____

_____

_____

Any other requirements: _____

_____

_____

_____

Average salary: _____

_____

Maya Number System Numbers 0-5080

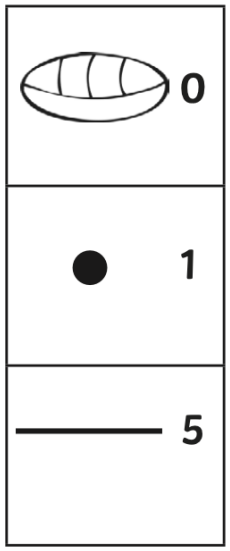
Maya Number System Numbers 0-19

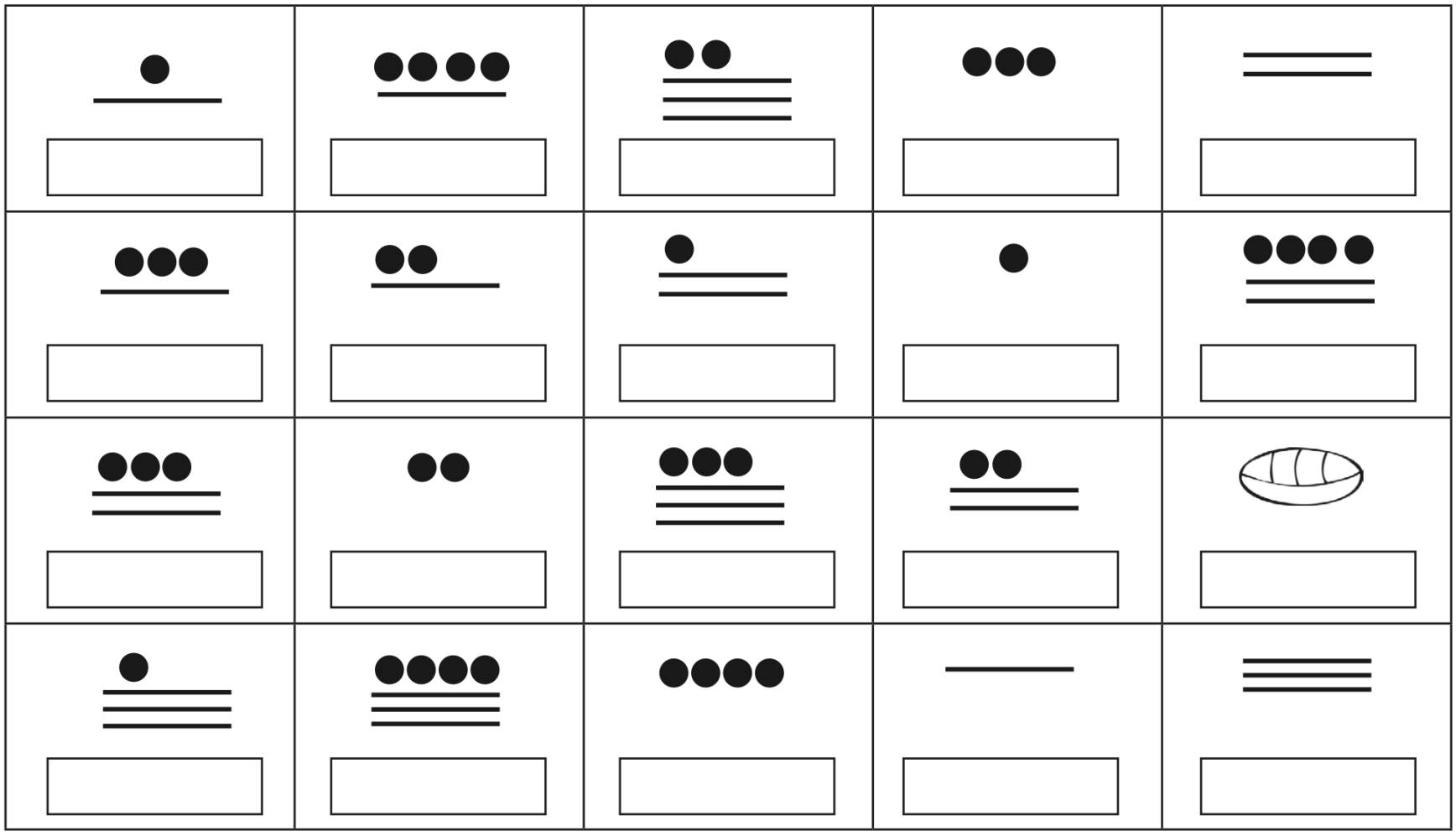
Can you identify these numbers?

Name: _____

Date: _____

Key:





1) 7 + 4 =

2) 23 – 9 =

3) 3 X 5 =

4) 144 ÷ 12 =

Plural-Tastic!

I can use possessive apostrophes with plurals.

1. Write each word with a plural apostrophe for the definitions below.

a) Something/someone belonging to a group of children: _____

b) Something/someone belonging to a group of wolves: _____

c) Something/someone belonging to a group of ponies: _____

d) Something/someone belonging to a group of boys: _____

e) Something/someone belonging to a group of houses: _____

Challenge:

2. Cross out the incorrect answers for these possessive apostrophes with plurals.

a) The thieve's / thieves' / thieves's balaclavas were itchy.

b) The country's / countrie's / countries' national anthems were played loudly.

c) The churches' / churche's / church's vicars were very happy with the new choir.

d) The bushs' / bushes' / bush'es leaves were covered in pests.

The Dragons' Possessions

I can use possessive apostrophes with plurals.

Remember:

Singular possession often looks like this – the girl's (one girl).

Plural possession often looks like this – the girls' (more than one girl).

In the lair lived three dragons: Itsy, Bitsy and Mipsy. They lived together in a cave at the foot of a prehistoric mountain, hiding from danger and protecting their secret.

1. Fill in the plural apostrophes in the sentences below.

a)

The dragons cave was terrifying.

b)

The dragons secret was that they were hiding some mysterious jewels.

c)

The many jewels sparkles were magical.

d)

The thousands of cave bats noses twitched, sniffing out intruders.

e)

A persons footsteps were heard approaching.

f)

Itsy, Bitsy and Mipsys knees trembled.

The shape has two pairs of parallel sides.	The area of the shape is $24cm^2$.
The shape has four right angles.	The shape's perimeter is numerically larger than its area.
The length of each side is an even number.	The shape is irregular.
The shape is a quadrilateral.	The shape has two lines of symmetry.

Rivers Vocabulary Matching Game

Match the word to its definition by writing the correct word in the box.

	solid matter which settles to the bottom of a liquid, for example the sandy riverbed		a barrier built to hold back water and form a reservoir
	clay, fine sand or other material carried along in water and deposited as sediment		the place where a river opens out into the sea or into another river or lake
	a smaller river or stream flowing in to join or feed a larger river		the land beside or sloping down to a river
	the gradual destruction of something, usually the earth by water		a rounded bowl in a landscape where water such as a lake may be pooled
	a large, usually artificial lake used to supply water		following a winding path or course that is specifically not straight or direct
	the area of land around a river where the ground lies very low and is easily flooded		the beginning or starting point of a river or stream

bank	basin	dam	floodplain	erosion	tributary
meander	mouth	reservoir	sediment	silt	source

What Were Masks Used For?

Masks played a central role in Maya culture. They were made for a variety of occasions and purposes. In fact, they were even used to decorate temples.

Event Masks

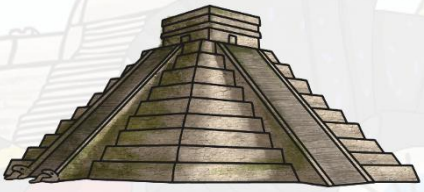
Masks were often inspired by animals; they were vibrant and colourful.

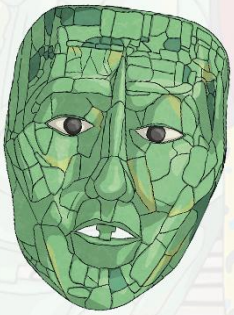
The Mayas believed that animals represented the spirits. For example, many Maya often associated strong kings with jaguars.

Event masks were usually made out of cedar wood.

Death Masks

Mayas were buried with a death mask, which was intended to protect the wearer on their journey to the afterlife.





The death mask of King Pakal is one of the most famous Maya artefacts. Pakal ruled the city of Palenque for 68 years. During this time, the city became very wealthy.

Each mask was made by hand and inspired by the maker's own imagination. Jade, a precious stone, was used because it symbolised the soul.

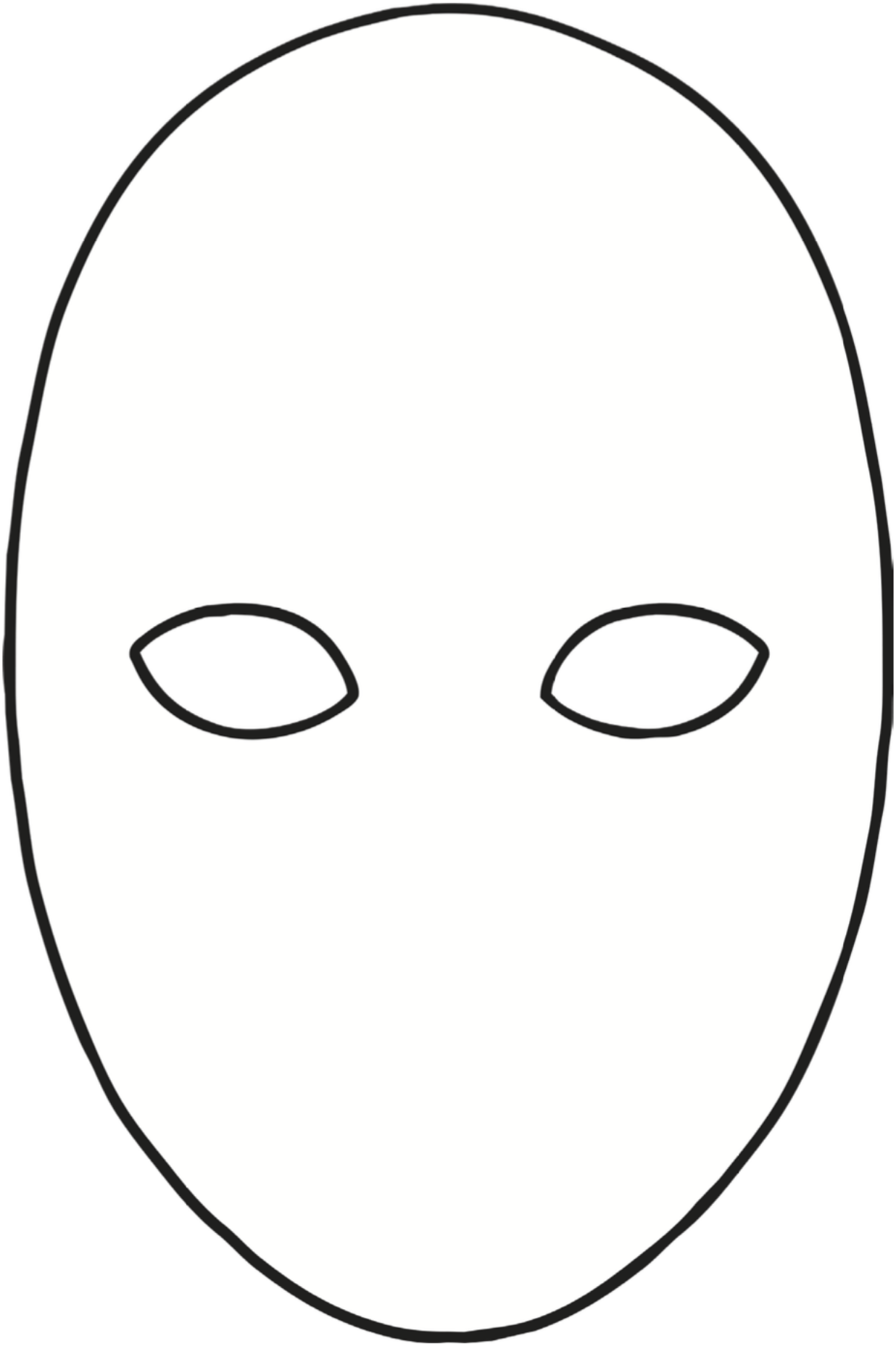
Maya Masks Activity

Aim: To design and make a Maya mask

Masks played a central role in Maya culture. They were made for a variety of occasions and purposes. In fact, they were even used to decorate temples. Wealthy Maya were buried with a death mask, which was intended to protect the wearer on their journey to the afterlife.

Instructions

1. Use the template below to design a Maya mask.
2. Decide whether you are going to make an event or death mask. Use colours and designs to suit this.
3. List the equipment and resources you will need.
4. Write simple instructions to help you make your mask.



Year 3 and 4 Statutory Spellings

breath

breathe

build

busy

business

calendar

caught

centre

century

certain

Year 3 and 4 Statutory Spellings

reign

remember

sentence

separate

special

straight

strange

strength

suppose

surprise

Year 3 and 4 Statutory Spellings

February

forward

forwards

fruit

grammar

group

guard

guide

heard

heart