



# LEEDS CASTLE

KENT ENGLAND

# Maths Challenge KS2



This Book Belongs to

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# Welcome to Leeds Castle

We hope you enjoy your visit whilst completing the Maths Challenge.

On each page of your booklet there will be a bronze, silver and gold question.



**Bronze questions are easier and will have this symbol.**



**Silver questions are medium difficulty and will have this symbol.**



**Gold questions are more challenging and will have this symbol.**

You can choose to do either bronze, silver or gold levels, or if you really like a challenge you can do all three!

To begin, go through the ticket check and walk to the bridge over the stream. Once over the bridge, look to your left where you will see...



# The Footbridge

This bridge was restored in 2010 by the 70 Ghurka Field Support Squadron.



How many black steel side panels are there?

Answer: \_\_\_\_\_



It was supposed to take 12 men 15 days to complete the work. If they had used half the number of men, how many days would the work have taken?

Answer: \_\_\_\_\_



If they had built a straight bridge, estimate how many panels they would have needed.

Answer: \_\_\_\_\_



# The Triangle and Great Water



Look across the great water.

a) Count the number of white swans on the water.

Answer: \_\_\_\_\_

b) Count the number of black swans on the water.

Answer: \_\_\_\_\_

c) Count the number of geese on the water.

Answer: \_\_\_\_\_



This area is called the triangle because three roads form a piece of land in the middle shaped like a triangle. What type of triangle do you think it is?

- a) Equilateral (all sides and angles are equal)
- b) Isosceles (two equal sides and angles)
- c) Scalene (no equal sides or angles)
- d) Right-Angled (one angle is  $90^\circ$ )



Look across the great water.

a) Count the number of white swans on the water.

Answer: \_\_\_\_\_

b) Count the number of black swans on the water.

Answer: \_\_\_\_\_

c) What is the ratio of black swans to white swans?

Answer: \_\_\_\_\_



# Henry VIII

In 1520 Henry VIII visited Leeds Castle with his wife and daughter.

He was 29 years old, and his wife, Catherine of Aragon, was 35 years old. Their daughter, Mary, was 4 years old.

Henry VIII brought 3,997 friends and staff, and Catherine brought 1,175 friends and staff.



a) How old was Catherine when Mary was born?

Answer: \_\_\_\_\_

b) How old was Henry VIII when Mary was born?

Answer: \_\_\_\_\_



a) What is the total age of the Royal Family?

Answer: \_\_\_\_\_

b) How much older than Henry is Catherine?

Answer: \_\_\_\_\_



How many people in total came to Leeds Castle on that day?

Answer: \_\_\_\_\_



# The Dog Collar Museum

Enter the Dog Collar Museum on your right, opposite the Fairfax restaurant.



How many pictures of dogs can you find in the museum?

Answer: \_\_\_\_\_





a) How many dog collars were first donated?

Answer: \_\_\_\_\_

b) How many dog collars are in the museum now?

Answer: \_\_\_\_\_

c) How many more collars is this?

Answer: \_\_\_\_\_



The oldest collar in the museum was made in the 15th century.  
This means it was made in the:

- a) 1300s
- b) 1400s
- c) 1500s
- d) 1600s



# The Culpeper Garden



The Culpeper Garden is made up of different sections. How many sections are there?

Answer: \_\_\_\_\_



What shapes make up the sections of the Culpeper Garden?  
(Hint: You might find different shapes, and some might be irregular!)

Answer: \_\_\_\_\_



How many sections are in the Culpeper Garden?

Answer: \_\_\_\_\_

By counting the number of plants you can see in one section, estimate the number of plants in the whole garden.

Answer: \_\_\_\_\_



Find a quiet spot in the gardens to complete this Sudoku puzzle.

6		2				4		5
	9		8		6		1	
				2				
1		6	7	3	2	9		8
	4			8				
3		9	5		4	6		7
		3		5		2		
	2		4		7		6	
8		4		6		1		9



# The Maze and Grotto

The maze was created in 1987 using 2,400 yew trees.



It took 6 gardeners to create the maze. Each gardener could plant 12 trees in one hour. They all worked from 8:00am to 12:00pm then took one hour for lunch. They finished planting at 4:00pm every day.



At what time did the gardeners' lunch break finish?

Answer: \_\_\_\_\_





How many trees did one gardener plant in a day?

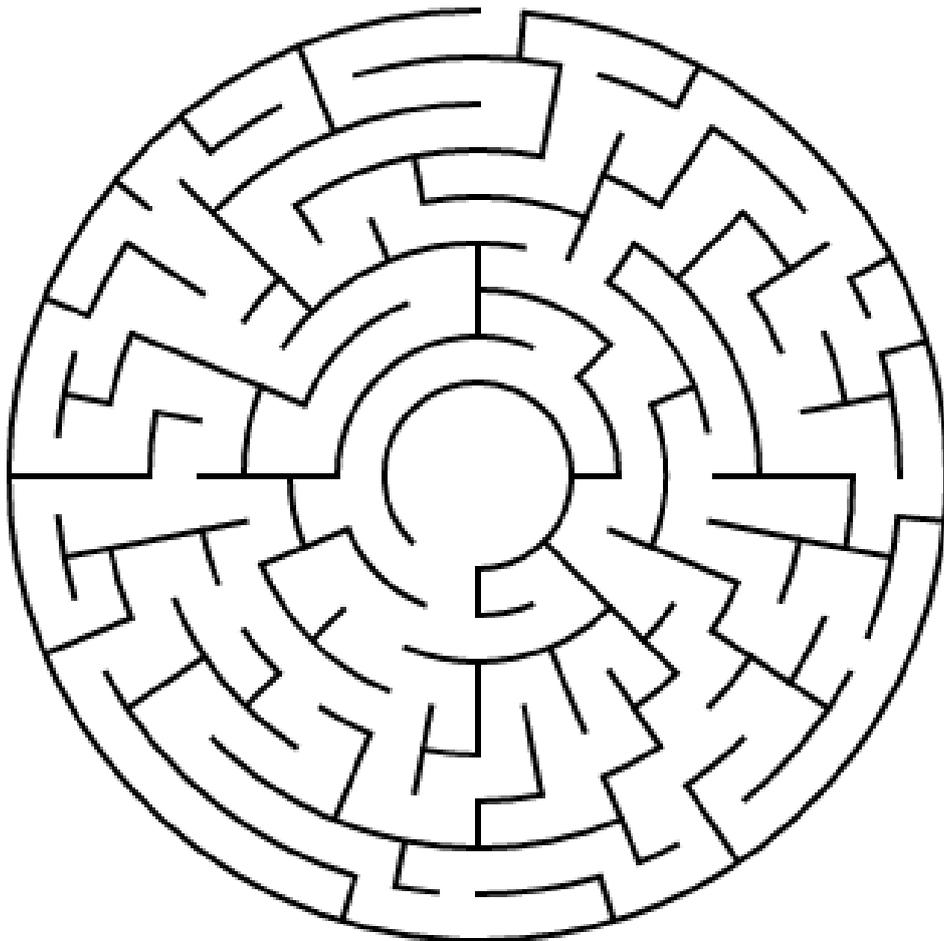
Answer: \_\_\_\_\_



How many days did it take to plant the maze?

Answer: \_\_\_\_\_

Can you find your way through this maze?



# The Falconry

Bronze, Silver and Gold can all complete this logic puzzle!

We have lots of different types of birds in our falconry department. The owls are our favourites.

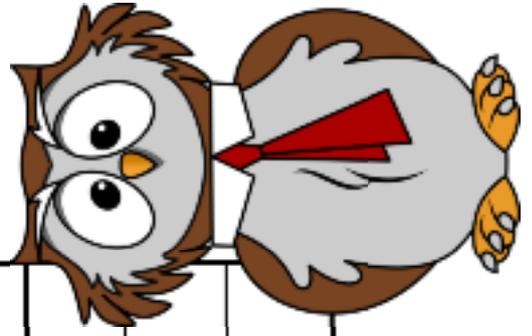
In this logic puzzle match the name of the owl to its species, origin and year of birth.

Read the clues and put ticks and crosses in the relevant squares on the grid to solve the puzzle.

Clues:

1. Merlin comes from Africa
2. Jack is a burrowing owl.
3. Pringle, the youngest owl, is a tawny owl.
4. The white faced scops owl is the oldest.
5. The bird from America was not born in 2013.





	Jack	Merlin	Pringle
Species	Tawny Owl		
	Burrowing Owl		
	White Faced Scops Owl		
Origin	America		
	Africa		
	Europe		
Year Of Birth	2011		
	2013		
	2014		



## Other Castle Activities



The table below shows the times for some extra activities available at Leeds Castle during half term.

<b>Activity</b>	<b>Start Time</b>	<b>Length of time activity takes</b>
History Set In Stone Tour	11:30am & 3:00pm	1 hour
Woodland Walk	11:30am	1 hour
Meet The Falconer	12:00 & 2:30pm	30 minutes
Falconry Display	1:30pm	40 minutes
Story Telling	3:00pm	30 minutes
Swan Feed	3:30pm	30 minutes

a) The woodland walk starts at 11:30am. What time does it finish?

Answer: \_\_\_\_\_

b) Which activities are run twice in the day?

Answer: \_\_\_\_\_





a) Which activity finishes at 3:00pm?

Answer: \_\_\_\_\_

b) A visitor arrives at 1:40pm. How long before the next activity starts and what is it?

Answer: \_\_\_\_\_



a) A visitor arrives at 1:40pm. He doesn't want to attend the story telling.

How many other activities will he be able to join in with?

Answer: \_\_\_\_\_

b) Plan your own day of activities for a day in half term. Make sure your times don't clash!

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# Notes And Calculations

Congratulations on completing your maths challenge booklet.  
We hope you have had a wonderful day at Leeds Castle!

