

Mystery at Dragonspire Castle

Maths Game

The children of St. Merlin's Academy are very excited because today is the day of their school trip. They are going to Dragonspire Castle and they cannot wait.

They have their rain coats, some money to spend in the gift shop and, most importantly, their lunchboxes! They travelled a long way on a coach, all singing at the top of their voices, and have had a wonderful time looking around the castle and going down into the dungeon.

But uh oh! Disaster has struck! Mrs Witchall, the potions teacher, dilly-dallied whilst she left the Ghost Tower, right at the top of the castle. Some naughty person has craftily slammed the door to the tower shut and now it won't open! Mrs Witchall is shouting through the door and is not at all pleased.

But who would do such a dreadful thing?

Your job is to use the descriptions of the suspects and solve the clues, to work out who the door-slamming culprit is! Good luck.



Descriptions of the suspects

Name	Male or Female	Year Group	Crisps in Lunchbox	Type of Juice	Colour of Gloves
Amena	f	3	yes	Juicy J	stripy
Brett	m	3	yes	Frootie Tootie	red
Cameron	m	3	no	Naturally Juicy	green
Dev	m	3	yes	Frootie Tootie	red
Eric	m	2	no	Naturally Juicy	blue
Finn	m	3	yes	Juicy J	stripy
Grace	f	3	yes	Naturally Juicy	blue
Himmat	f	2	yes	Fresh Juice	red
Izzy	f	3	no	Naturally Juicy	stripy
Jason	m	3	yes	Frootie Tootie	green
Krystian	m	3	yes	Fresh Juice	stripy
Lowri	f	2	no	Juicy J	stripy
Mia	f	2	yes	Fresh Juice	red
Noah	m	3	yes	Frootie Tootie	green
Olivia	f	2	no	Naturally Juicy	blue
Poppy	f	3	no	Fresh Juice	red
Qasim	m	3	yes	Juicy J	blue
Rachel	f	3	no	Fresh Juice	green
Simeon	m	3	yes	Frootie Tootie	stripy
Thomas	m	2	yes	Frootie Tootie	blue
Uma	f	3	no	Juicy J	stripy
Verity	f	2	yes	Naturally Juicy	green
Will	m	2	no	Fresh Juice	blue
Xing	m	3	yes	Naturally Juicy	red
Yara	f	2	no	Frootie Tootie	stripy

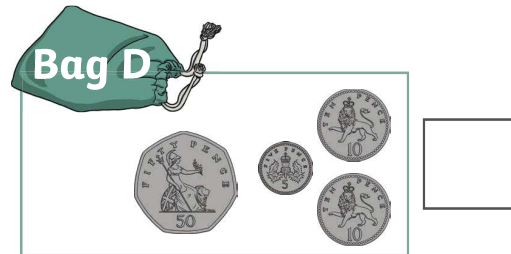
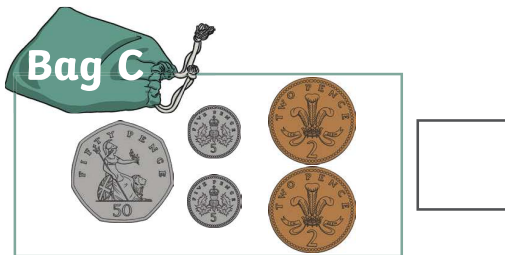
Clue 1: A Knight's Purse

Total the value of the coins. Tick the money bag which adds up to the correct total. Then, colour in the answer in the boxes on the next page. Order the words in coloured boxes to make a sentence to solve the first clue.

Which money bag holds 23p?



Which money bag holds 64p?



Which money bag holds 87p?



Which money bag holds £1 and 22p?



Which money bag holds £1 and 39p?



Bag A year 1	Bag E person	Bag I year 2
Bag F in	Bag H castle	Bag C is
Bag D crisps	Bag B culprit	Bag J year 3
	Bag G the	

Answer to clue 1:

Clue 2: Rescue the Princess!

The princess is trapped in the tower! Help Sir Twinklton to rescue her, by cracking the code to solve the second clue!

a	b	c	d	e	f	g	h	i	j	k	l	m
1	2	3	4	5	6	7	8	9	10	11	12	13

n	o	p	q	r	s	t	u	v	w	x	y	z
14	15	16	17	18	19	20	21	22	23	24	25	26

_____ _____ _____
(10 + 10) (1/2 of 16) (15 - 10)

_____ _____ _____ _____ _____ _____ _____
(9 - 6) (30 - 9) (double 6) (8 × 2) (9 × 2) (20 - 11) (double 10)

_____ _____
(5 + 4) (29 - 10)

_____ _____ _____ _____
(7 + 6) (100 - 99) (1/2 of 24) (1/2 of 10)

Clue 3: Gate Numbers

1	2	3	4	5	6	7		9	10
11	12			15		17	18	19	20
21	22		24		26	27	28		30
31		33	34	35	36	37	38	39	40
	42	43			46	47	48	49	50









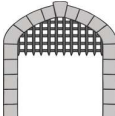
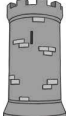


A thief at the castle has stolen some of the numbers and now the gate won't open! Fill in all the missing numbers.

If you write more odd numbers than even ones, then the culprit who locked Mrs Witchall in the tower had a bag of crisps in their lunchbox.

There are more odd numbers missing so the culprit did have crisps.

There are more even numbers missing so the culprit did not have crisps.

Clue 4: Show Me the Way

					 Frootie Tootie		
			 Juicy J				
							 Fresh Juice
							
							
		 Naturally Juicy					

A juice carton was dropped by the culprit outside the Ghost Tower door. Follow the instructions and use the map to find out what sort of juice the culprit liked.

1. Start at X.
2. Move forward 4 squares. Turn right.
3. Move forward 4 squares. Turn right.
4. Move forward 1 square. Turn left.
5. Move forward 1 square. Turn left.
6. Move forward 2 squares.

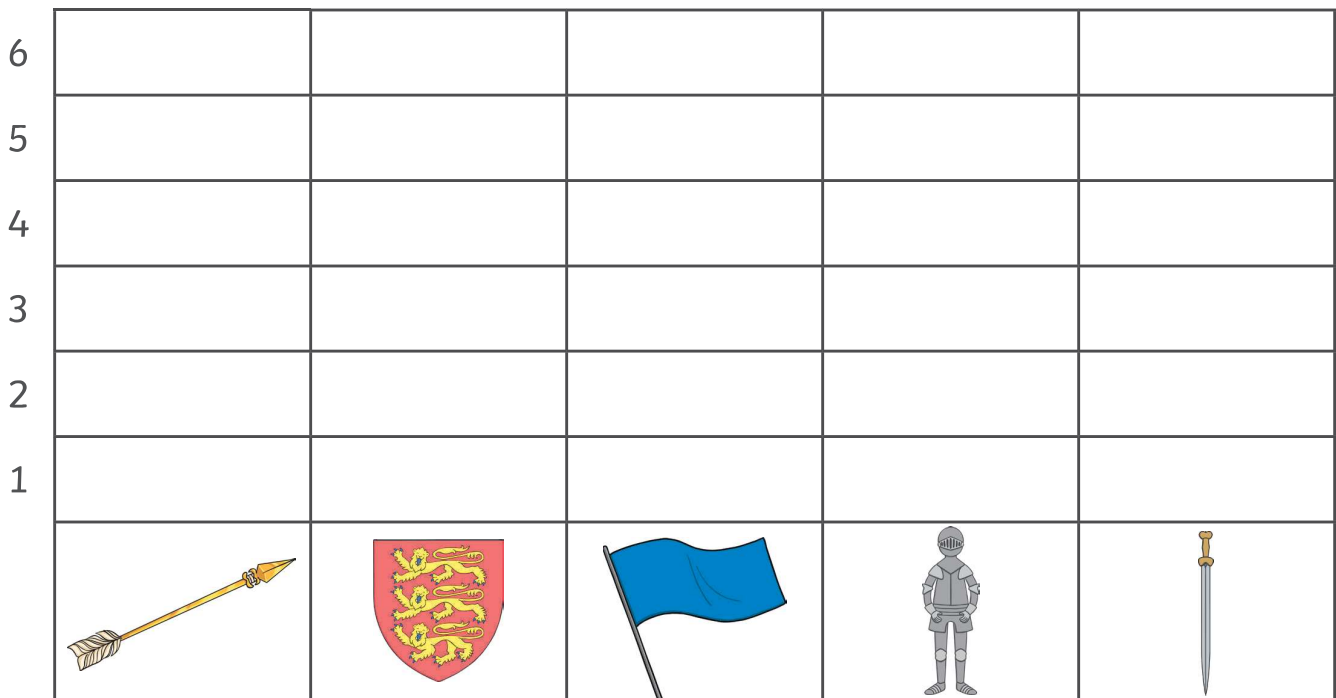
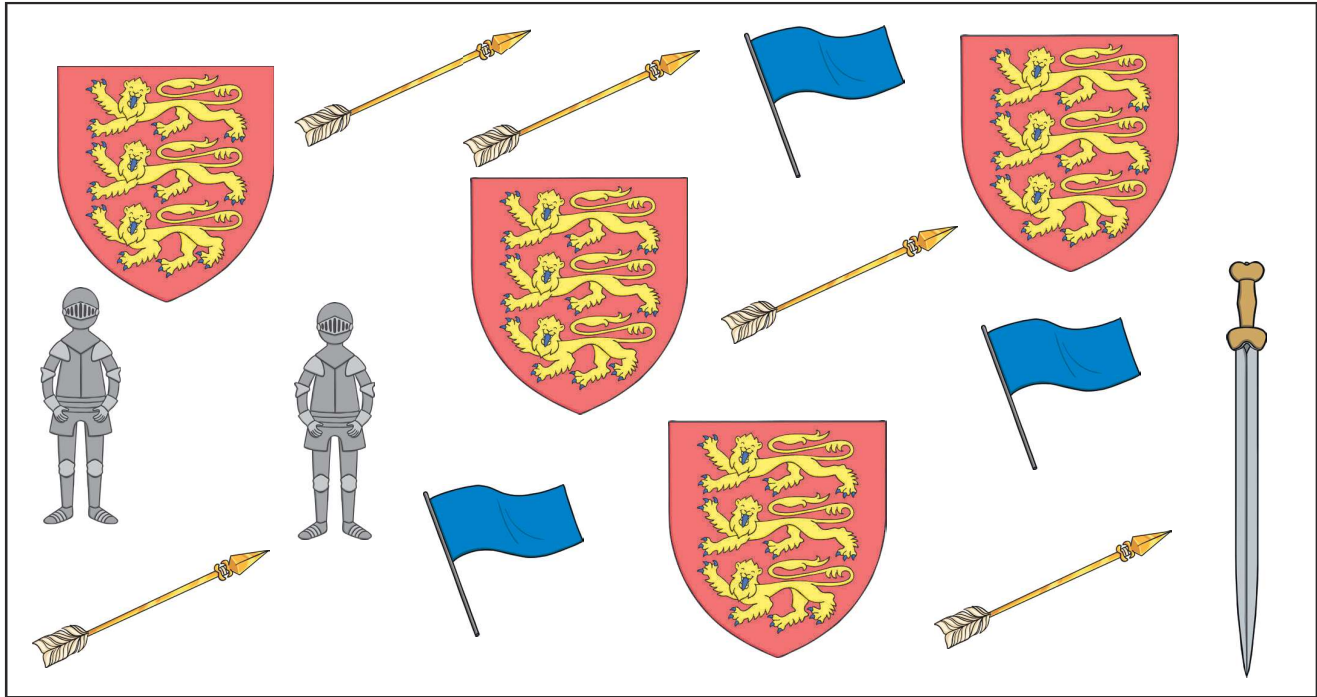
You have reached the type of juice carton dropped by the culprit!

Answer to clue 4: _____

Clue 5: Castle Count

Here are some objects you might see in a castle.

Count the castle objects and complete the bar graph.



Answer the questions below. Find the answers in the key, then rearrange the words to make a sentence which tells you the answer.

1. Which item is most popular? How many are there?
2. Which item is least popular? How many are there?
3. How many more arrows than suits of armour are there?
4. How many flags and shields are there altogether?
5. What is the difference between the number of flags and the number of swords?
6. How many objects are there altogether?

5 a	10 floor	1 culprit	6 green
4 lost	7 the	8 sword	2 dropped
15 stripy	0 red	3 glove	13 blue

Answer to clue 5:

Have you solved the mystery of who locked Mrs Witchall in the Ghost Tower?

It is _____.