Please make sure that you print this resource at 100% so that all measurements are correct.
To do this, follow the relevant steps below.

## Adobe Reader or Adobe Acrobat

- Adobe Reader is a free PDF viewer, from Adobe. To install a copy of Adobe Reader, go to https://get.adobe.com/uk/reader/.

- Once Adobe Reader is installed, open your PDF.

- Go to File>Print.

- Under 'Page Sizing & Handling', select 'Size'.

- From here, make sure that 'Actual Size' is selected.

- Print this page as a test, making sure that the shape below is the correct size once printed.

- If the test print is correct, print your PDF.

Foxit Reader

- Go to File>Print.

- Set the 'Scaling' to 'None'.

- Print this page as a test, making sure that the shape below is the correct size once printed.

- If the test print is correct, print your PDF.

Web Browser

- If printing from a web browser, such as Chrome, Firefox or Microsoft Edge make sure that your printer is set to print at 100%, either by unticking 'Fit to Page' or selecting 'Actual Size'.

- Print this page as a test, making sure that the shape below is the correct size once printed.

- If the test print is correct, print your PDF.

5cm
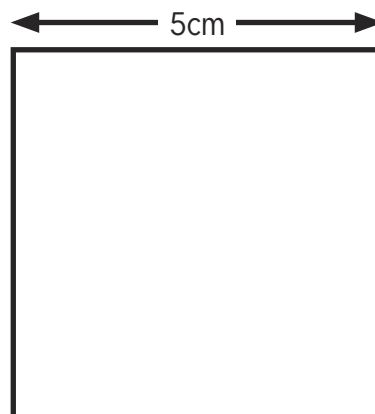
The Mystery of the Ribbonless Maypole

It was dawn on the 1st of May in West Trunkles. Wendy Willis was up early to see the May Day sunrise and then set up the village green for the big May Day celebrations.

The sun came up and the dew sparkled on the freshly cut grass on the green... then her eyes fell on the May Pole... the ribbons had gone!

They were there the night before for the rehearsal so someone must have taken them overnight – but who?

There is CCTV near to the green but not on the Maypole itself and it's down to you, the detective and the Scene of Crime Officers (SOCOs), to find out the identity of the perpetrator.

Solve the following clues to eliminate all-but-one of the following suspects based on their gender, where they live, hair colour, shoe size and the vehicle they drive.

Good luck...

The people of West Trunkles are relying on you!

Suspect List

Name	M/F	Age	Hair Colour	Footwear	Facial Features
Aisha Arbourday	F	51	brown	sandals	none
Ahmed Arthur	M	19	black	trainers	moustache
Bella Beltane	F	23	ginger	boots	glasses
Billy Bluebell	M	44	bald	sandals	pierced nose
Charles Crown	M	42	grey	clogs	beard
Cathy Chorus	F	48	black	wellies	glasses
Dave Dawn	M	18	bald	trainers	glasses
Delia Dewfall	F	21	ginger	high heels	none
Ethan Emerald	M	60	brown	clogs	moustache
Esther East	F	52	grey	boots	glasses
Flora Floralia	F	37	blonde	trainers	hair over face
Freddy Furrydance	M	29	brown	sandals	beard
Gordon Greenman	M	40	brown	wellies	glasses
Greta Garland	F	32	blonde	clogs	glasses
Heidi Helston	F	23	ginger	trainers	glasses
Hal Hantow	M	69	black	barefoot	hair over face
Isabella Incoming	F	47	brown	trainers	none
Icabod Inclement	M	37	blonde	barefoot	beard
Ju June	F	40	brown	sandals	pierced nose
Jim Jack-in-the-Green	M	70	bald	boots	moustache
Kaspar King	M	43	grey	boots	moustache
Katya Kevadpüla	F	19	ginger	trainers	pierced nose
Lucy Leiday	F	41	blonde	trainers	none
Lee-John Leaf	M	38	ginger	sandals	glasses
Maya Morris	F	24	blonde	high heels	hair over face
Mike Mayflower	M	20	black	wellies	moustache
Nellie Newsun	F	55	blonde	trainers	glasses
Neil Newsummer	M	35	ginger	clogs	glasses
Olaf Obby	M	61	brown	sandals	beard
Ola Oss	F	30	grey	boots	glasses
Pascal Padstow	F	27	black	sandals	none
Phil Persephone	M	50	brown	trainers	moustache

Clue 1

The SOCOs have found the pair of scissors used to cut some of the ribbon, but the culprit seems to have cut themselves on the scissors enabling the SOCOs to analyse the blood sample and determine another clue.

Work out the answers to each of these shape questions and the number given will be a letter of the alphabet using

A = 1, B = 2, C= 3 etc.
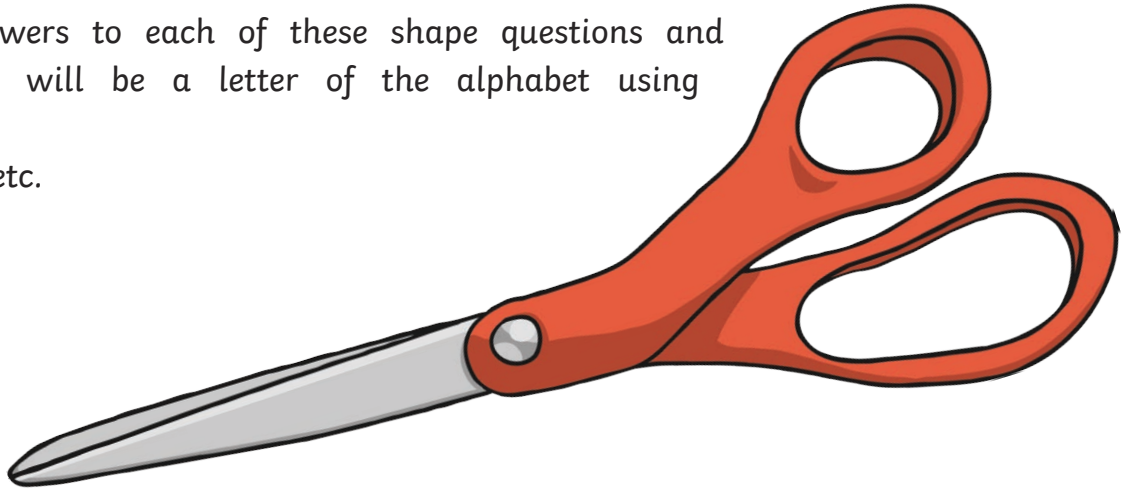
1. sides of a square - surfaces on a sphere =

2. flat surfaces on a pentagonal prism × surfaces on a cylinder =

3. sides on a dodecagon =

4. sides on a rhombus × sides on a kite =

5. internal angles of a triangle ÷ corners on a decagon =

6. degrees in a right angle ÷ vertices on a pentagonal prism =

7. flat surfaces on an icosahedron =

8. edges on a triangular prism =

9. octagonal prism flat surfaces + edges of a triangular prism =

10. vertices on a hexagonal prism + edges on a cone =

11. flat surfaces on a hexagonal prism – sides on a heptagon =

12. flat surfaces on a tetrahedron + flat surfaces on an octahedron =

13. vertices on a square-based pyramid =

Clue 2

The SOCOs have found that the culprit dropped a membership card during the theft. The name is not on the card, but it gives a clue to the age of the wrongdoer.

Work out the minutes between these times and the most popular answer will give the age the criminal is under.

1. 8:32a.m. to 9:13 a.m.

2. 6:29p.m. to 7:24 p.m.

3. 4:17p.m. to 4:53 p.m.

4. 10:42a.m. to 11:24 a.m.

5. 12:56p.m. to 1:50 p.m.

6. 9:07 a.m. to 9:43 a.m.

7. 3:19 p.m. to 4:01 p.m.

8. 7:31 a.m. to 8:26 a.m.

9. 1:39 p.m. to 2:16 p.m.

10. 5:25 p.m. to 6:07 p.m.

Clue 3

During your house to house investigations, you have found a house that has CCTV cameras on their drive which has the village green and maypole in the background, it's far away but you can make out something about the culprit. Work it out using the multiplication grid below.

x	2	5	7	3	10	8	6	4	1	9
6	I	A	L	V	B	K	D	C	J	'
9	V	M	!	T	$	Y	"	D	H	B
3	J	S	U	H	A	C	V	I	:	T
1	Q	&	.	:	P	W	J	X	Z	H
7	F	G	@	U	/	O	L	)	.	!
2	X	P	F	J	R	N	I	W	Q	V
8	N	?	O	C	#	E	K	£	W	Y
5	P	(	G	S	*	?	A	R	&	M
10	R	*	/	A	%	#	B	?	P	$
4	W	R	)	I	?	£	C	N	X	D

27	9	64	8	20	56	16	35	36	56	64	20

8	64	30	20	15	35	42	30	15	15	64	15

Clue 4

The SOCOs have found a piece of evidence snagged on a splinter on the May Pole.

Solve the calculations below to find a decimal then choose the equivalent fraction to find a letter to spell out the clue.
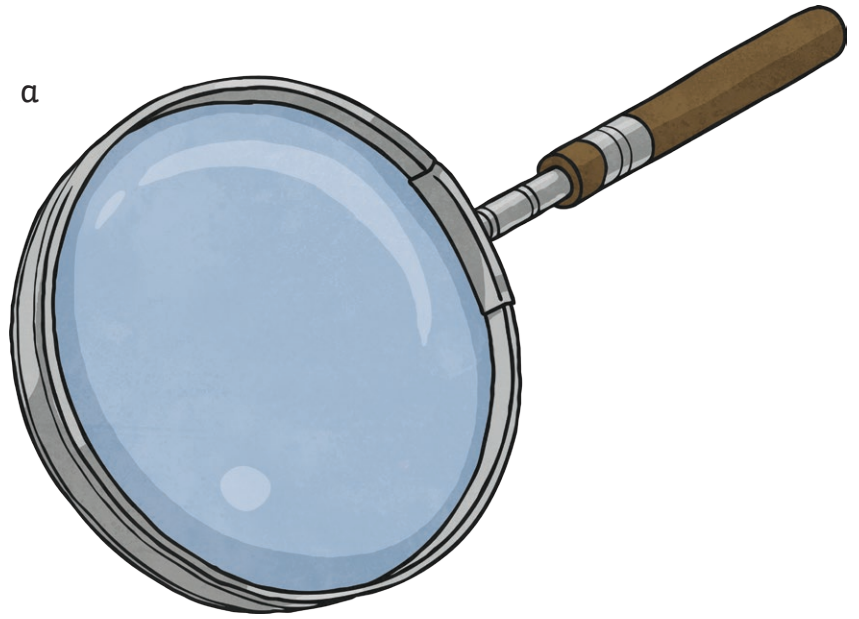
1. 0.27 + 0.13 =

2. 1 ÷ 2 =

3. 1.17 – 1.07

4. 0.23 + 0.19 + 0.33 =

5. 1 – 0.9 =

6. 0.35 × 2 =

7. 0.4 ÷ 2 =

8. 0.06 + 0.04 =

9. 2.5 ÷ 10 =

10. 0.02 × 10 =

11. 0.1 – 0.07 =

12. 1.5 ÷ 2 =

$\frac{3}{100}$	$\frac{1}{10}$	$\frac{1}{20}$	$\frac{8}{10}$	$\frac{1}{100}$	$\frac{1}{2}$	$\frac{1}{6}$	$\frac{1}{5}$
E	I	C	B	Y	A	W	G

$\frac{7}{10}$	$\frac{5}{12}$	$\frac{1}{3}$	$\frac{2}{5}$	$\frac{7}{100}$	$\frac{1}{4}$	$\frac{5}{6}$	$\frac{3}{4}$
S	O	D	H	K	N	L	R

Answer:

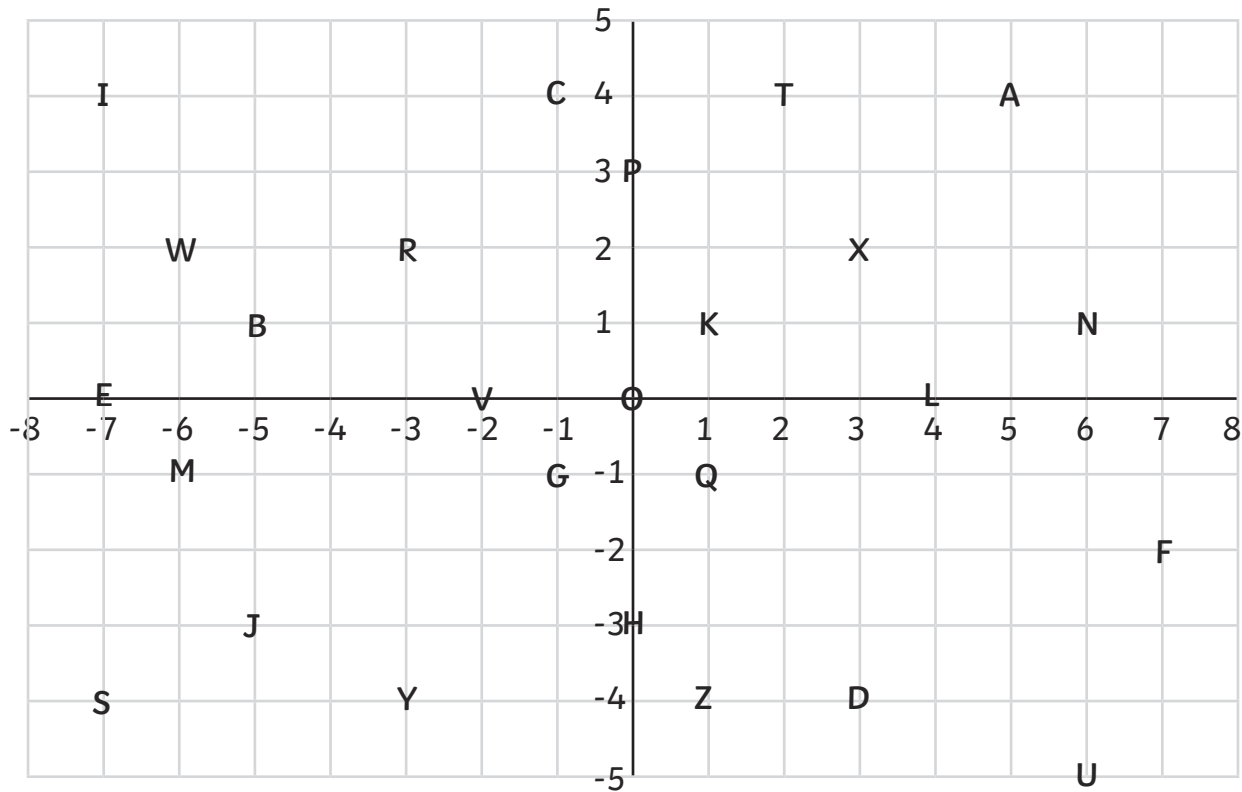# Clue 5

The SOCOs have found footprints at the scene.

Measure each line in centimetres and the length will give you a letter of the alphabet to spell out the clue using A = 1cm, B = 2cm, C= 3cm etc.

The Confession

When the ribbon pilferer was finally caught, they had this to say...

When the trespasser was eventually caught and brought to face charges, they were asked about their motive.

Solve the code below to find out what they said.

(-7, 4)	(-6,-1)	(5,4)	(-3,-4)	(0,0)	(-3,2)

(-6,-1)	(5,4)	(-3,-4)	(6,1)	(0,0)	(2,4)

(0,-3)	(5,4)	(-2,0)	(-7,0)

(3,-4)	(0,0)	(6,1)	(-7,0)	(-7, 4)	(2,4)

Answers

Clue 1

1. 3 = C
2. 21 = U
3. 12 = L
4. 16 = P
5. 18 = R
6. 9 = I
7. 20 = T
8. 9 = I
9. 19 = S
10. 13 = M
11. 1 = A
12. 12 = L
13. 5 = E

Spells: Culprit is male.

Clue 2

1. 41 minutes
2. 55 minutes
3. 36 minutes
4. 42 minutes
5. 54 minutes
6. 36 minutes
7. 42 minutes
8. 55 minutes
9. 37 minutes
10. 42 minutes

The culprit is under 42 years old (not exactly 42).

Clue 3

The wrongdoer wears glasses.

Clue 4

1. $0.4 = \frac{2}{5}$
2. $0.5 = \frac{1}{2}$
3. $0.1 = \frac{1}{10}$
4. $0.75 = \frac{3}{4}$
5. $0.1 = \frac{1}{10}$
6. $0.7 = \frac{7}{10}$
7. $0.2 = \frac{1}{5}$
8. $0.1 = \frac{1}{10}$
9. $0.25 = \frac{1}{4}$
10. $0.2 = \frac{1}{5}$
11. $0.03 = \frac{3}{100}$
12. $0.75 = \frac{3}{4}$

Hair is ginger.

Clue 5

Spells: Ribbon robber has sandals.

The Culprit: Lee-John Leaf

The Confession

"I 'May' or 'May' not have done it."