



Bog Roll Bandit Mystery



Situation:

Today police have been called by the manager to a local toilet roll warehouse. The manager arrived for his shift at 7.02am and has found that every single bog roll has been stolen!

Police have cordoned off the scene and called out the Crime Scene Investigators. They know that the crime must have taken place between 6.49am and 7.02am because the night security guard left the premises to go home at 6.49am.

Police have estimated that the haul would have taken 4-5 minutes to load on to the van by the thief.

From the evidence gathered at the crime scene including fingerprints, 3 possible suspects have emerged.

The 3 possible suspects all work at the warehouse. It is down to you to work out who could have been at the warehouse at the correct time to commit the crime!

Good Luck detectives!



Suspect 1: Masie Rumblebuns

Masie is a 'Product Packer' – she spends the day packing rolls of butt wipers into boxes to be shipped.

Masie always rides her bike to work. She also loves playing candy crush on her iPhone 5. She generally gets into work early to play a few games before her shift starts. She always leaves for work early. It takes her 1 hour to ride 10 miles. She was seen by a witness at 6am riding her bike 5 miles from work. At 6.15am CCTV shows her stopping to repair a puncture, which takes her 25 minutes to fix.



Suspect 2: Fred Derrière

Fred is the Accounts manager. He does regular audits of the tushy wiping stock.

Fred lives 50 miles away from the warehouse. He always drives to work in his car. The top speed of the car is 100 mph. He left home that day at 6.25am. He stopped at the petrol garage to refuel at 6.30am as his car was on empty. He was seen to be quite angry in the garage as the cashier had not said "Thank you" to him. He only had enough cash on him for 1/8th tank of petrol. As he had spent all his money on an expensive Italian meal and ordering antiseptic wipes on eBay last night. A full tank holds enough fuel for 200 miles.



Suspect 3: Lucinda Caboose

Lucinda works in the canteen, feeding all the hungry loo roll lovers.

Lucinda left for work at 6am to ensure she was there to make breakfast for the workers. She lives 1 mile away from the train station, Kentish Town. Her average walking speed is 4 miles per hour. She needs to get to the train station to catch a train to Homerton. On the train she is seen to get into a heated discussion with a male about keeping a 2-meter distance from her personal space. Once off the train she then walks from Homerton station to the warehouse which takes her 21 minutes.



Train timetable for Homerton Station

Kentish Town	06:08	06:15	06:18	06:23	06:28	----
Camden	06:12	06:19	----	-----	06:32	----
Highbury	06:17	06:24	----	-----	06:37	----
Dalston	06:23	-----	06:29	-----	06:43	06:49
Homerton	06:32	-----	06:38	-----	06:52	06:58
Hackney Wick	06:40	06:45	06:50	06:47	07:00	07:06

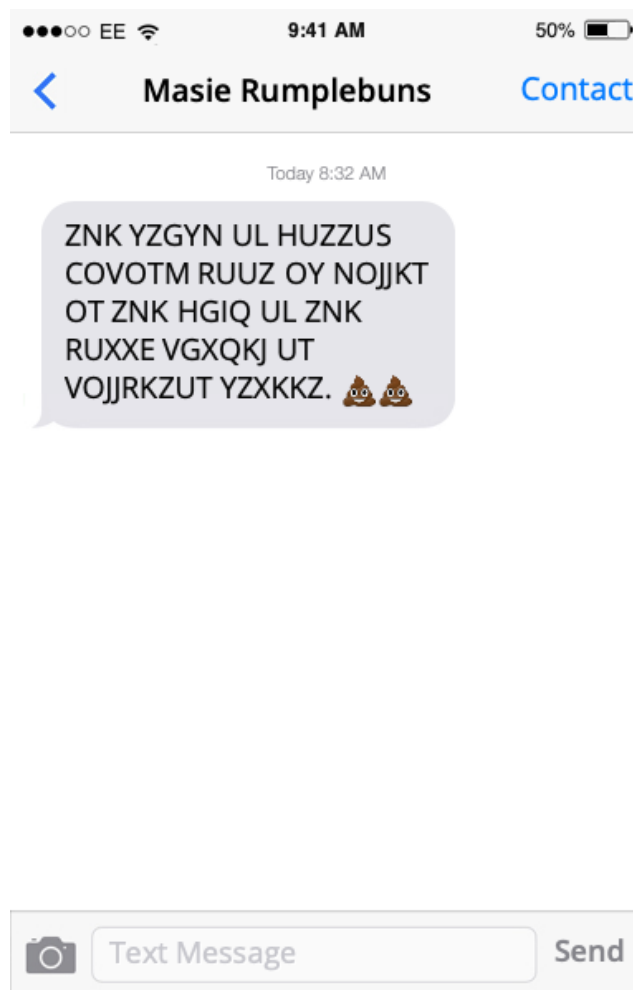


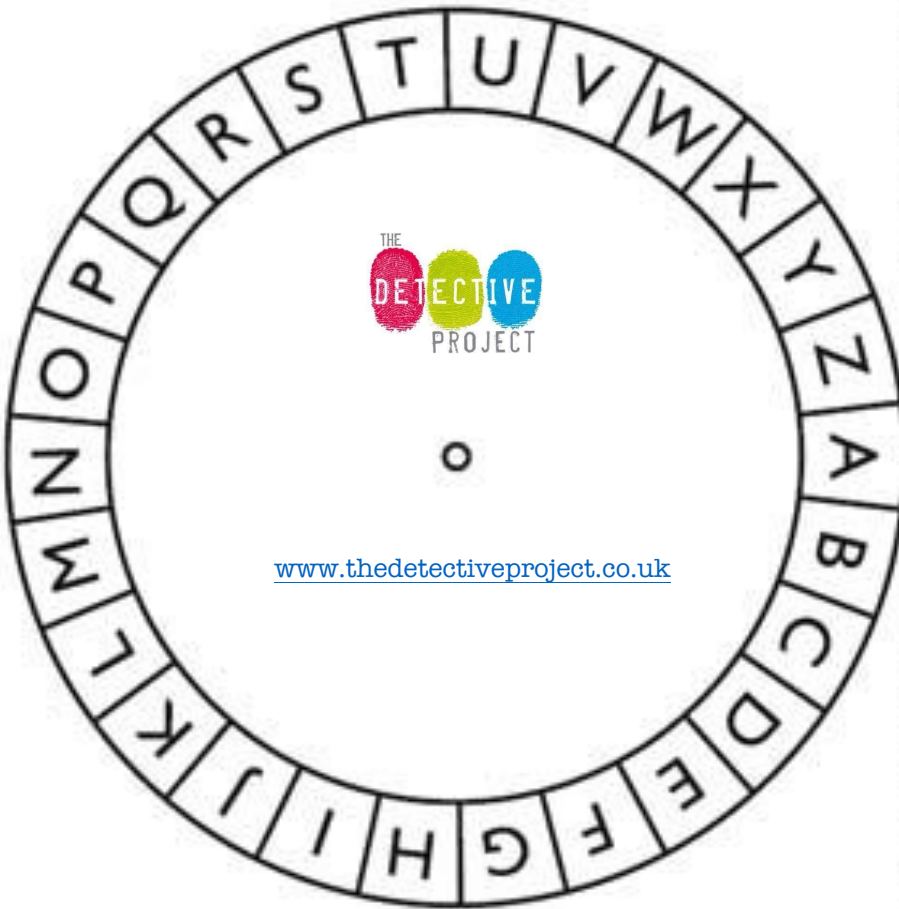
Now.... the only thing left to do is FIND the missing Loo Roll!!

Police have attended and searched Masie's Address.

Nothing was found... except for this message on her phone.

Can you decipher the code and work out where the bog rolls have been hidden?





How to make a Caesar cypher:

You will need:

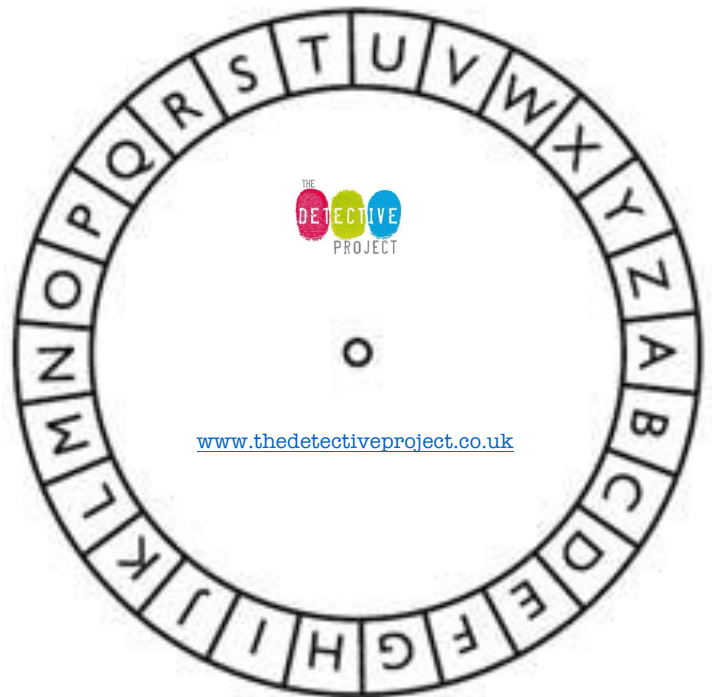
- Thick card
- 1 Split pin

Instructions:

1. Print out this page on thick card.
2. Cut out both wheels.
3. Place the smaller wheel on the larger wheel and make a hole through the middle.
4. Attach the circles using a split pin.

How to use the Cypher Wheel:

1. Align both circles so that the alphabet matches e.g. A on the small wheel is below A on the large wheel. This is the 'plain text'.
2. Move the smaller circle round one place e.g. A = B. This is a 1 shift cypher, because the alphabet has shifted one place. This is the 'cypher text'.
3. Move the smaller circle round two places e.g. A = C. This is a 2-shift cypher, because the alphabet has shifted two places.
4. Continue moving the wheel round until you have found the correct cypher to decode the message.



ANSWERS

Suspect 1: Masie Rumblebuns

Masie is a 'Product Packer' – she spends the day packing rolls of butt wipers into boxes to be shipped.

Masie always rides her bike to work. She also loves playing candy crush on her iPhone 6. She generally gets into work early to play a few games before her shift starts. She always leaves for work early. It takes her 1 hour to ride 10 miles. She was seen by a witness at 6am riding her bike 5 miles from work. At 6.15am CCTV shows her stopping to repair a puncture, which takes her 25 minutes to fix.



Half of 10 is 5 miles.

Half of an hour is 30 minutes.

It takes 30 minutes to ride to work plus 25 mins to fix the bike.

Arrives at 6:55



Suspect 2: Fred Derrière

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He brought enough petrol to go 25 miles, NOT the 50 miles he needed so he would break down before arriving at work.

Even at top speed to travel 50 miles would take 30 minutes.

(calculate mph half 100 and half 60 minutes = 50 miles in 30 minutes)

or with calculator-

100 % 60 = 1.666666 minutes to travel one mile.

60 % 100 = 0.6 miles travelled in a minute

0.6 x 50miles = 30 minutes

So 6:25 plus 30 minutes Is **06:55** BUT he stopped to get petrol, AND could he drive at 100mph the whole way????

Did he even make it in to work???

Suspect 3: Lucinda Caboose

Lucinda works in the canteen, feeding all the hungry loo roll lovers.

Lucinda left for work at 6am to ensure she was there to make breakfast for the workers. She lives 1 mile away from the train station, Kentish Town. Her average walking speed is 4 miles per hour. She needs to get to the train station to catch a train to Homerton. On the train she is seen to get into a heated discussion with a male about keeping a 2-meter distance from her personal space. Once off the train she then walks from Homerton station to the warehouse which takes her 21 minutes.



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15 mins to walk to station - 6:15 arrive at station.
 Catch the 6:18 (not the 6:15 train as it doesn't stop at Homerton).
 Arrive at Homerton at 6:38 plus 21 minutes to walk...
arrives at work at 6:59.

ONLY person who could have committed the crime in the time is:

Masie Rumblebuns

The coded message is a 6-shift cypher!

Decoded this says:

“The stash of bottom wiping loot is hidden in the back of the lorry parked on Piddleton Street”

Well done Detectives!!

CONGRATULATIONS Detective!!

This is to certify that



solved the crime!!