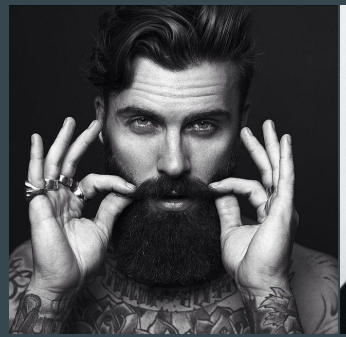
Murder Mystery

Who killed Carleton Comet?

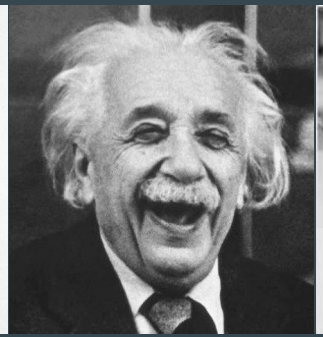
By Andre Ng, Lydia Maxon, Nathan Luis, David Solis

The People Involved



Carleton Comet

Fred Flimmer



Sam Sophomore

Glen Glee

Nancy Normal

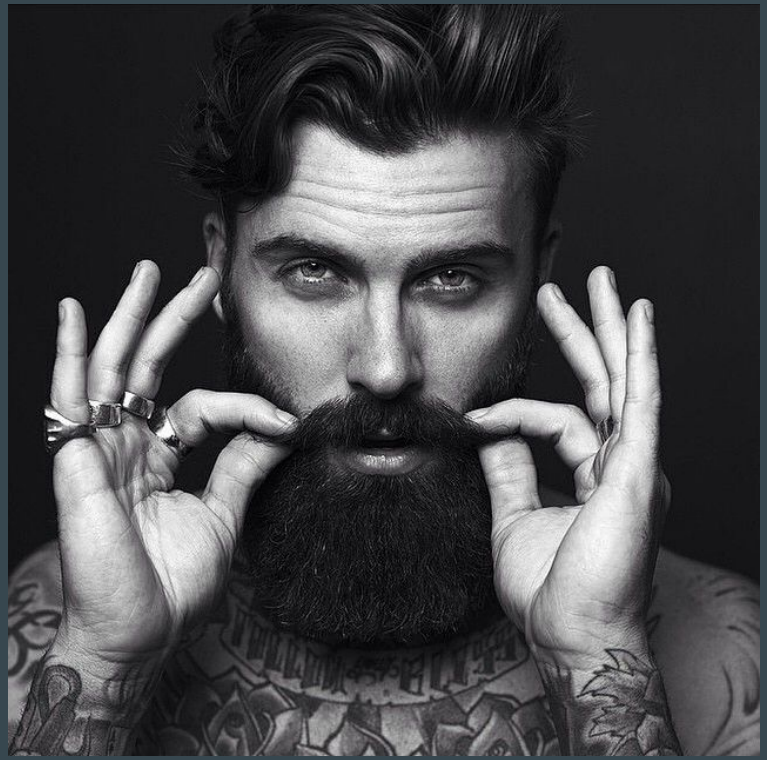
Teresa Terra

Claim

Nancy Normal killed Carleton Comet with help from Sam Sophomore

Who was Carleton Comet?

- Little is known about Comet
- Recently was in prison
- Has a new name
- Stated everyone at picnic affected by Comet



Carleton Comet is Thomas Sandstone

- Both have type O blood
- Carleton just changed name (Thomas has changed name before)
- Thomas killed Joan and Peebles accidentally, you go to jail for accidentally killing people - went to jail
- Everyone at the picnic is connected to Carleton somehow
- Thomas showed up in all their pedigrees
- Both Thomas and Carleton have many children from many different women

Motive

- Nancy fancies Fred Flimmer
- Fred would hate Thomas because Thomas killed his aunt and sister
- Fred engaged to Teresa Terra
- Nancy wants to impress Fred by killing Thomas/Carleton so he dumps Teresa and goes out with her
- Sam also hates Thomas because he killed his fiance, Peebles
- Sam heard Nancy wanted to kill Thomas and wanted to help to get revenge for what Thomas did
- Sam and Nancy have been seen together recently

Evidence From Crime Scene

Fingerprint found on piece of glass

Knife with blood

Note saying “You are a dead man”

Hair

Fingerprint matching

The fingerprint found belongs to Nancy Normal.

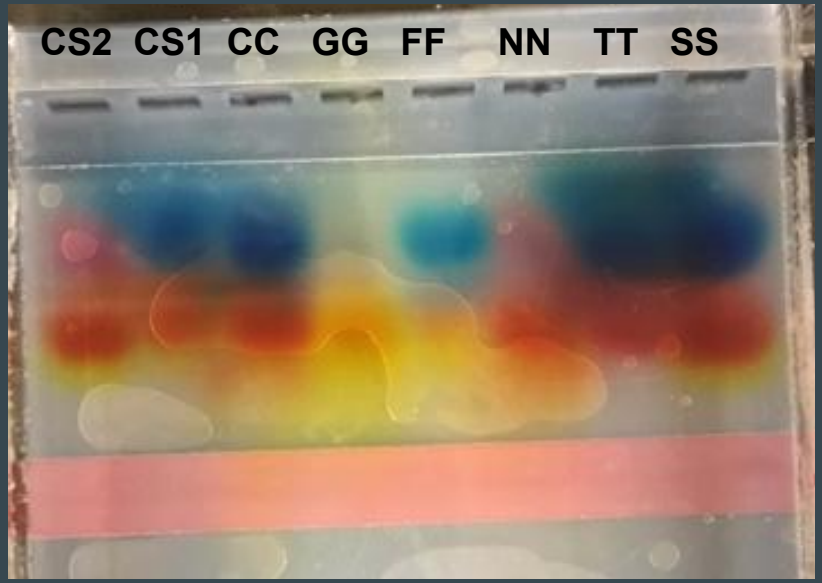
Fingerprint found on glass

Nancy Normal's fingerprint

- Fingerprint types: loop, arch, and whorl
- Crime scene fingerprint is loop
- Nancy Normal's fingerprint matches up because it is a similar loop

DNA Fingerprint Gel

DNA was extracted from each of the suspect's fingerprints. The DNA was inserted into an agarose gel and went through electrophoresis for about 30 minutes.



- ★ Nancy Normal's DNA matches the DNA in crime scene 2
- ★ Carleton Comet's and Sam Sophomore's DNA matches crime scene 1

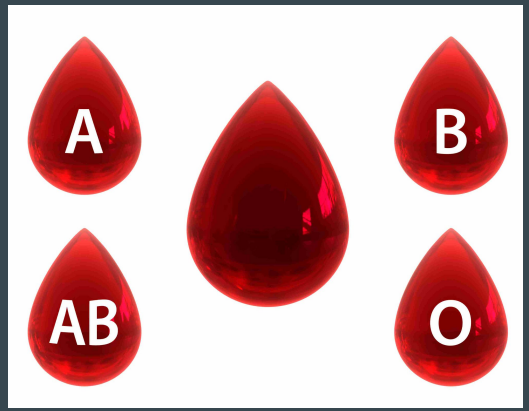
Blood Type Matching

- Blood samples were taken from each suspect
- 2 types of antigens, A or B, was put in the blood

	GG	TT	CC	NN	FF	SS	CS1	CS2
Antigen	Anti- A	Anti-A	O	Anti-A	O	O	O	Anti-A
Blood Type	A	A	O	A	O	O	O	A

Blood Type Continued

- Glen Glee's, Theresa Terra's, and Nancy Normal's blood matches blood at CS2 - all have type A
- Carleton Comet's, Fred Flimmer's, and Sam Sophomore's blood matches blood at CS1 - all type O



Ink Chromatography

3 pens tested to see which one was used to write the note

The test:

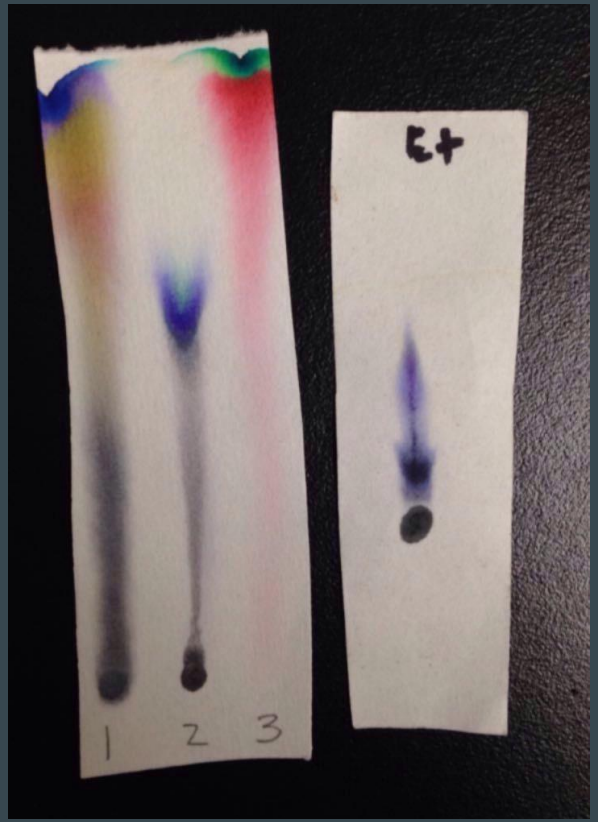
- 1 mark from each pen was made on the chromatography paper
- Paper put in beaker filled with small amount of ethyl - ink spot not submerged
- Ethyl travels up paper
- Ink travels up paper

Ink Chromatography Continued

Pen 1 Rf Value (Retention Factor)	Pen 2 Rf Value	Pen 3 Rf Value	Crime Scene Pen Rf Value
2.5cm	1.4cm	5.5cm	0.6cm
5.8cm	4.2cm	1.6cm	3cm
0.43cm	**0.33cm**	**0.35cm**	**0.2cm**

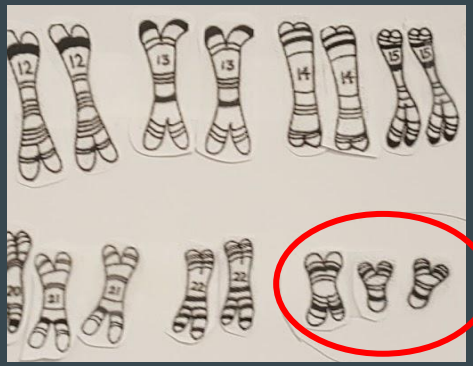
Pen 2 Used **Nancy Normal wrote Note**

- Color matches color of crime scene pen - purple that flares up and a trail of black at the beginning
- Rf value closest to the Rf value of the crime scene pen



1: Glen Glee **2:** Nancy Normal
3: Fred Flimmer

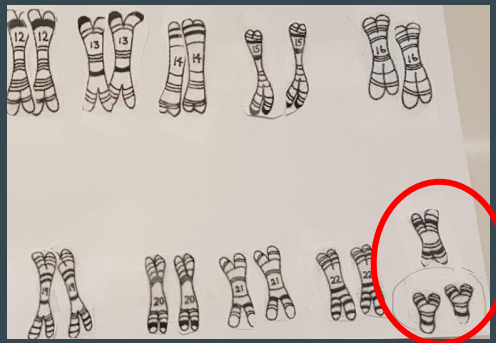
Karyotype Matching



CS1 - XYY Syndrome

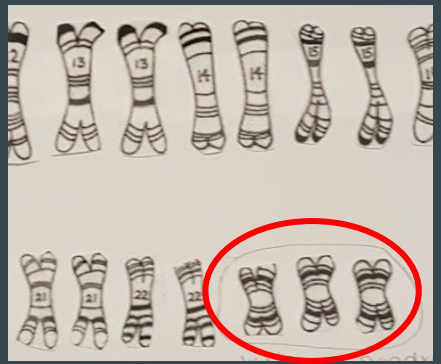
CS2 - Triple X Syndrome

CC - XYY Matches CS1



SS - XYY

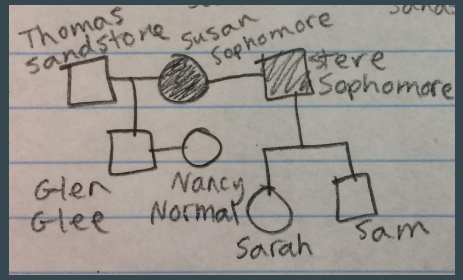
Matches CS1



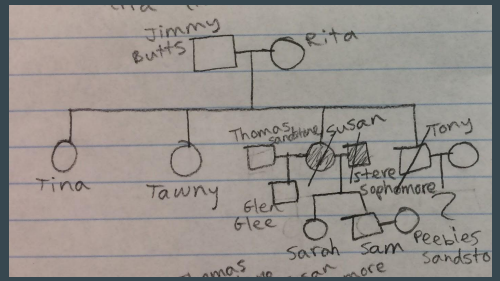
NN - Triple X

Matches CS2

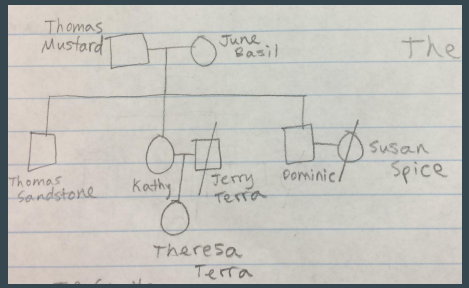
Pedigrees



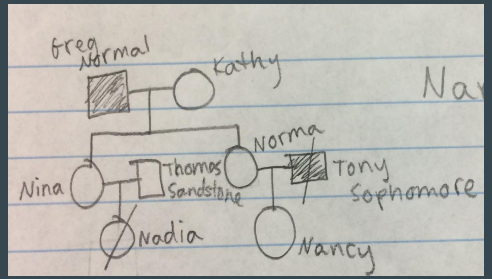
Glen Glee



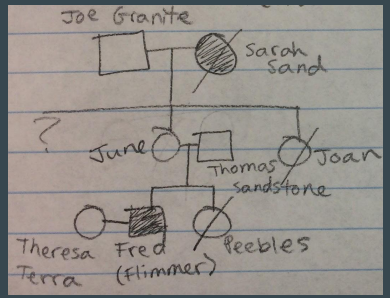
Sam Sophomore



Theresa Terra



Nancy Normal



Fred Flimmer

Fiber Analysis

Human Hair

Crime Scene Hair

Looking at the fibers under a microscope, it appears that the unknown fiber is human hair.

Type of Homicide

- First degree murder: Malicious intent and forethought
- Second degree murder: Malicious intent but no forethought (heat of the moment)
- Manslaughter: No malicious intent and no forethought (accidental)
- Justifiable homicide: Killing another in self defence

Why Nancy Normal and Sam Sophomore?

Nancy Normal

- Fingerprint found matches Nancy's
- DNA found at crime scene 2 matches Nancy's DNA
- Blood type at CS2 matches Nancy's
- Karyotype from CS2 has triple X syndrome like Nancy

Sam Sophomore

- DNA found at CS1 matches Sam's
- Blood type at CS1 matches Sam's
- Karyotype from CS1 has XYY like Sam's

We convict Nancy Normal of 1st degree murder and Sam Sophomore as an accomplice