

Name \_\_\_\_\_



Suspect 1 - Moonwind

# Detective Mystery



## Logbook



Suspect 2  
Anna Appelstroop

Suspect 3  
Horace Witherspoon



Group \_\_\_\_\_



Suspect 4  
Antoine de Burberry



## Summary of Events

A new type of fast growing oil seed plant has been discovered by the Zumikon Botanical Society during a field trip to the South American rain forest. It was claimed by Erik van Groningen, who found the plant that if it is grown in a European climate it will produce a crop every 4 weeks of the growing season. If so it could revolutionise the energy industry by providing a green alternative to petroleum oil. Oil companies are interested in getting hold of the seeds. The oil company that obtains the patent for the seed could benefit so much that it would become the richest fuel producer in the World.

Mr van Groningen who made the discovery of the oil plant has kept it a secret since his return but was due to make a presentation to the world's leading experts on fuel production at the 3<sup>rd</sup> annual ICS Energy Conference. However 2 days before the conference on Sunday the 11<sup>th</sup> June, Mr van Groningen was found dead in his greenhouse. He appears to have been poisoned. A toxic substance was extracted from the bottle he was drinking from. A handwritten note was found near the scene along with fingerprints on the glass he drank from. The only remains of the flower are some pollen grains found at the scene.

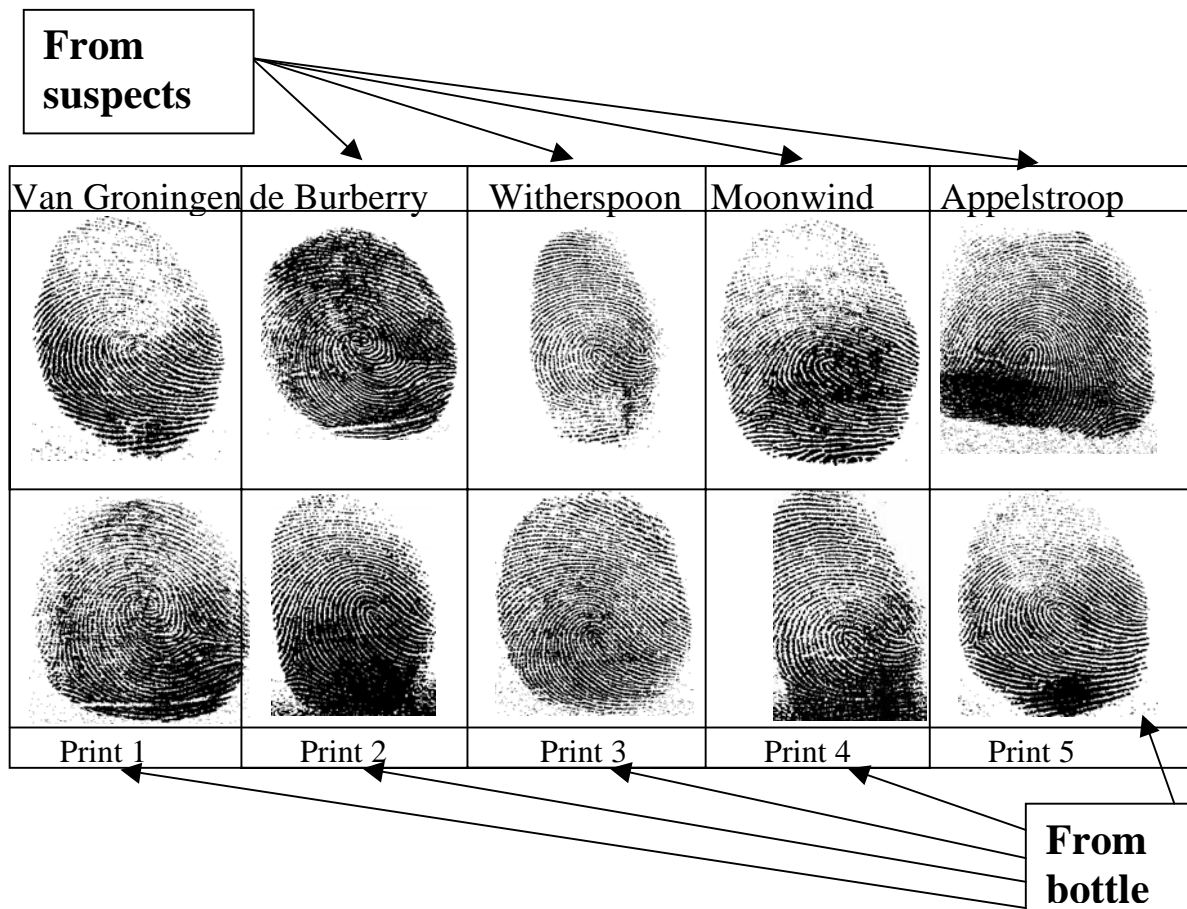
There has been an argument within the Botanical society about who the plant belongs to. Mr Antoine de Burberry, the society's President claims that the ownership must belong to the society as the plant was discovered as part of the society's field trip that he personally financed. M. de Burberry became the President of the society in a bitter dispute with Mr van Groningen. M de Burberry claimed that despite Mr van Groningen being a long time resident of Zumikon, as a non Swiss national he was not entitled to become President (see article 5, clause vii of the society's constitution). M de Burberry had only recently moved to Zumikon. He is a young wealthy millionaire with no obvious income or occupation. His past is a mysterious secret that he guards jealously. His character is international. He speaks several languages fluently and although he has Swiss citizenship it is not clear which country he originates from.

There is also a suggestion from Mr Moonwind a new age energy consultant that the property rights of the seed belong to the indigenous people from the Rain Forest region where the seeds were found. As a spiritual force in tune with the indigenous people Mr Moonwind would like to represent their interests in any pending legal actions to claim ownership of the species of oil seed plant. Mr van Groningen recently said that he had evidence to expose Moonwind as a fraud who was out to make money from the situation.

Horace Witherspoon a one time friend of Mr von Groningen was recently slated in a newspaper review that Mr von Groningen wrote about Mr Witherspoon's one man Shakespearean play Big Mac the sequel– Duncan you're a Donut – a sugar coated tale of greed, gluttony and eventual hardening of the arteries. There have even been claims that Mr Witherspoon threatened to kill Mr van Groningen as a result.

Mr van Groningen came to Zumikon many years ago with Anna Appelstroop. She is always by his side in his various activities and she tends to speak for him using the term "we". There have been suggestions that Anna Appelstroop is only his personal assistant and not his wife as most people had believed. Mr van Groningen has never referred to Ms Appelstroop as his wife. When first told about his death by journalist Nathalie Schlumpf, she broke down, cried and said "Erik, my poor husband".

# Finger Print Analysis



Print	Matches with	Explanation
1		
2		
3		
4		
5		

These fingerprints are also in an electronic format (see web 2, then grade 8, then Science: Eighth grade, then Detective Mystery, then Fingerprints.pdf)

Go to the following websites to find out more:

[www.guilford.edu/academics/index.cfm?ID=100001860](http://www.guilford.edu/academics/index.cfm?ID=100001860) analysis

<http://www.crimtrac.gov.au/fingerprintanalysis.htm> analysis <http://onin.com/fp/fphistory.html>

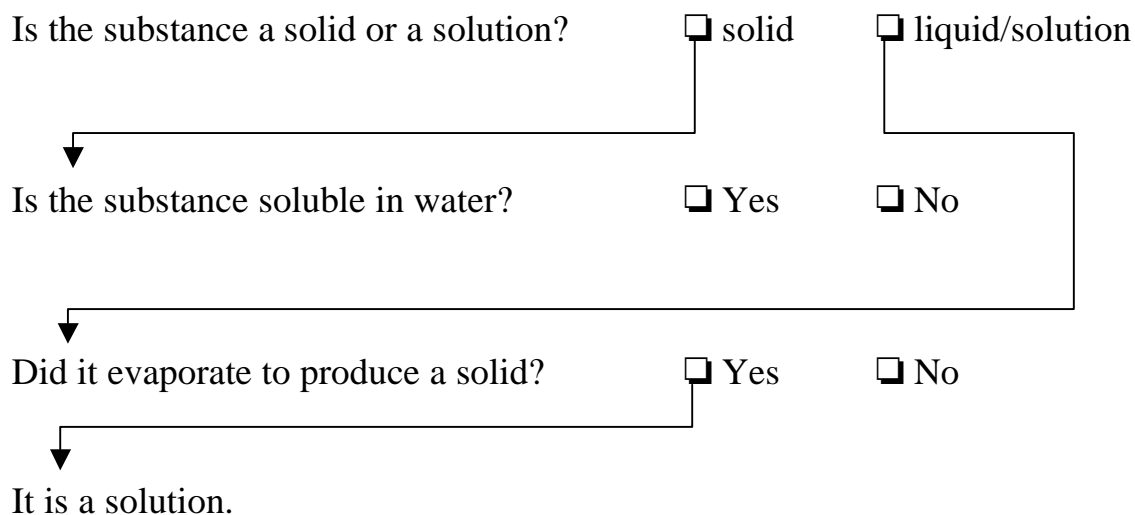
history of fingerprints

<http://www.eduscreen.com/interactive.html> interactive analyser

[http://news.bbc.co.uk/2/hi/uk\\_news/scotland/684563.stm](http://news.bbc.co.uk/2/hi/uk_news/scotland/684563.stm) how reliable are fingerprints?

# Chemical Substance Analysis

Follow the flow diagram below to identify features of the different chemicals taken from the suspects and compare them with the toxic substance found in the victim's drink.



Did the slow evaporation form crystals?       Yes       No

What colour is the substance? \_\_\_\_\_

Description of substance - particle size, powder, crystals, large lumps, sticky etc

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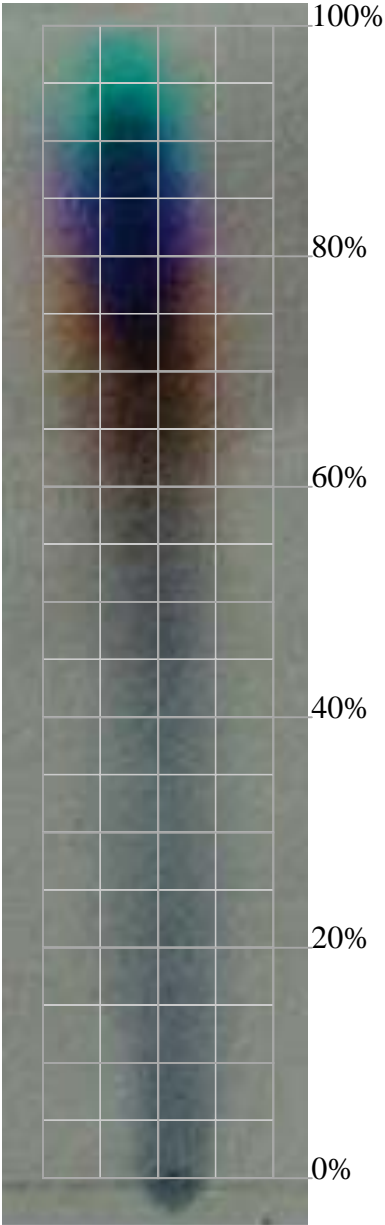
## Summary

Sample	Toxic substance from bottle	Appelstroop	Witherspoon	de Burberry	Moonwind
Colour					
State at room temp					
Soluble in water					
Crystal formation					

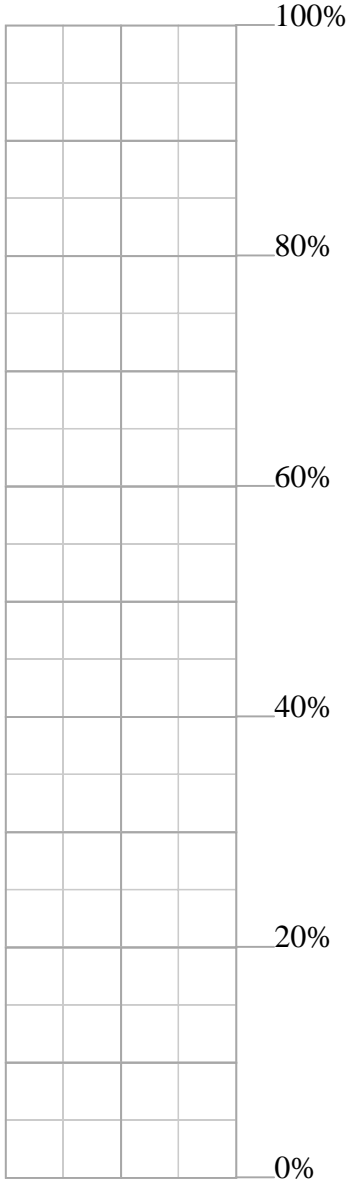
# Chromatography Analysis

## Forensic Science Chromatography Analysis

Ink found on the note

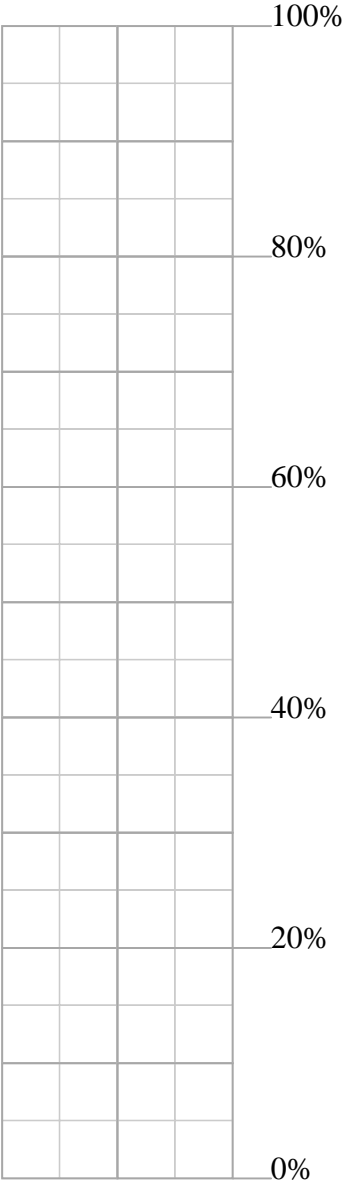


Ink from Van Groningen's pen

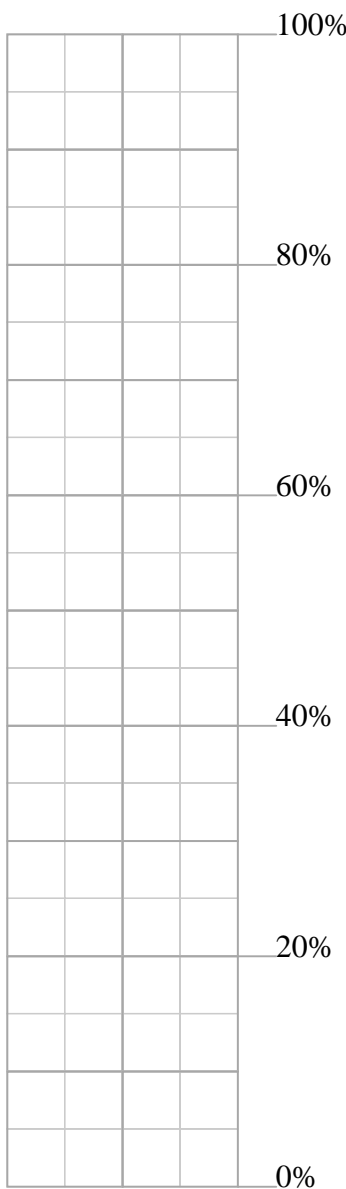


# Chromatography Analysis

Ink from Appelstroop's pen



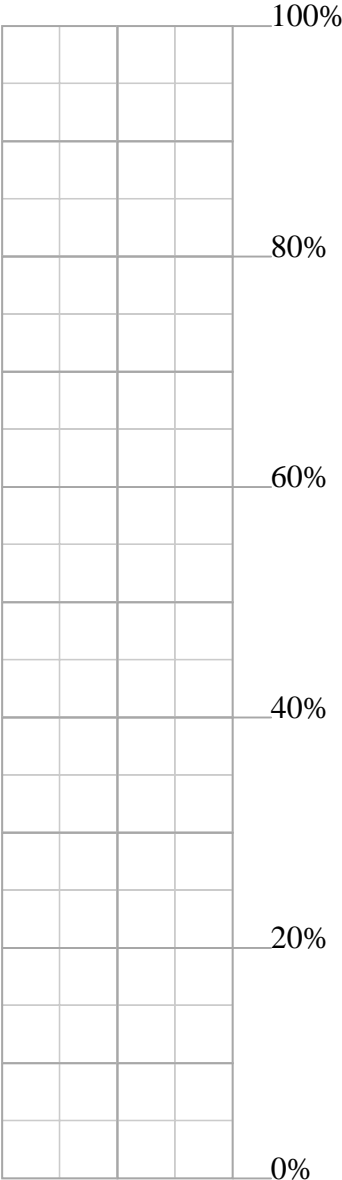
Ink from de Burberry's pen



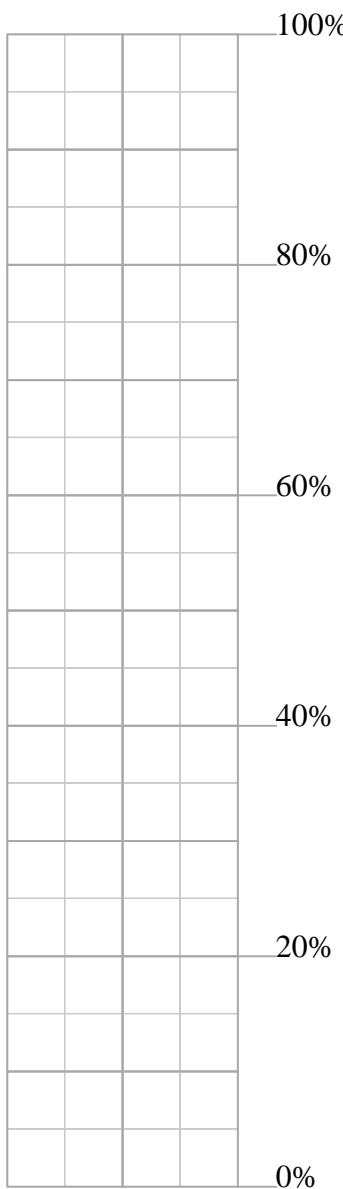
Notes:

# Chromatography Analysis

Ink from Moonwind's pen



Ink from Witherspoon's pen

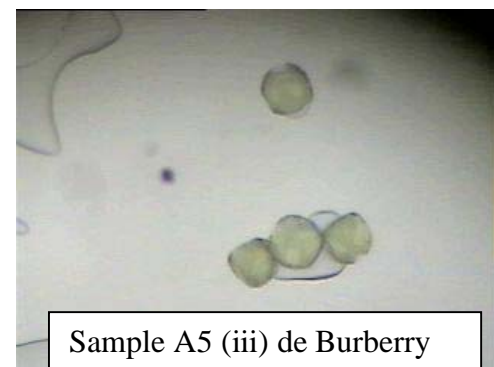
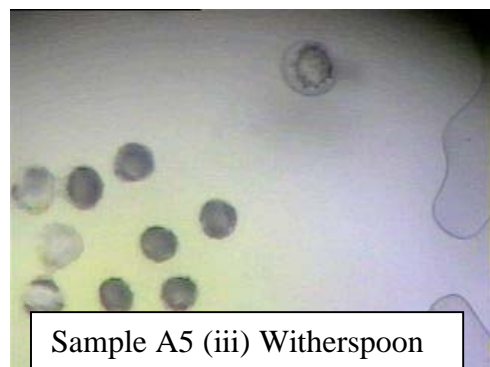
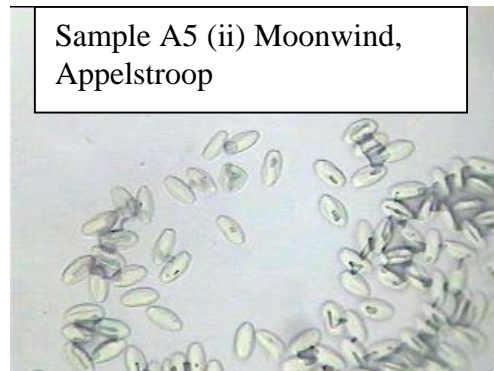
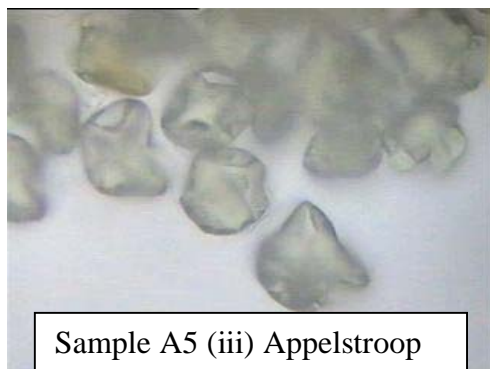
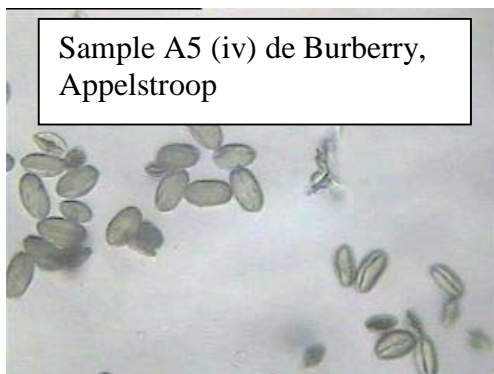
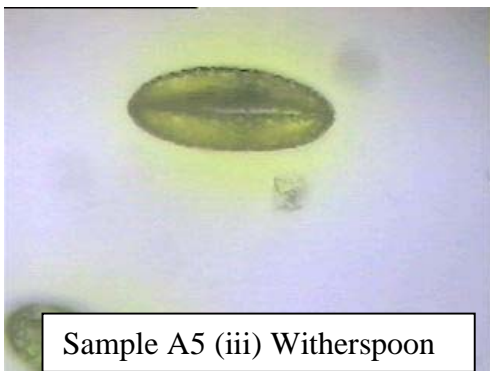
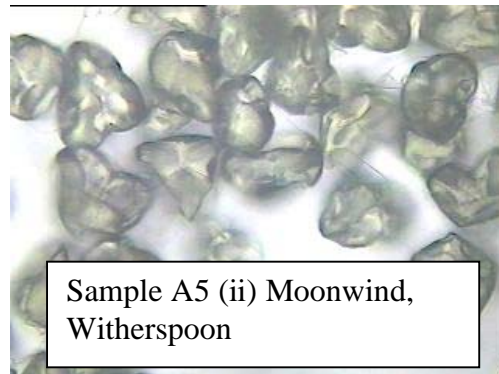


Notes:



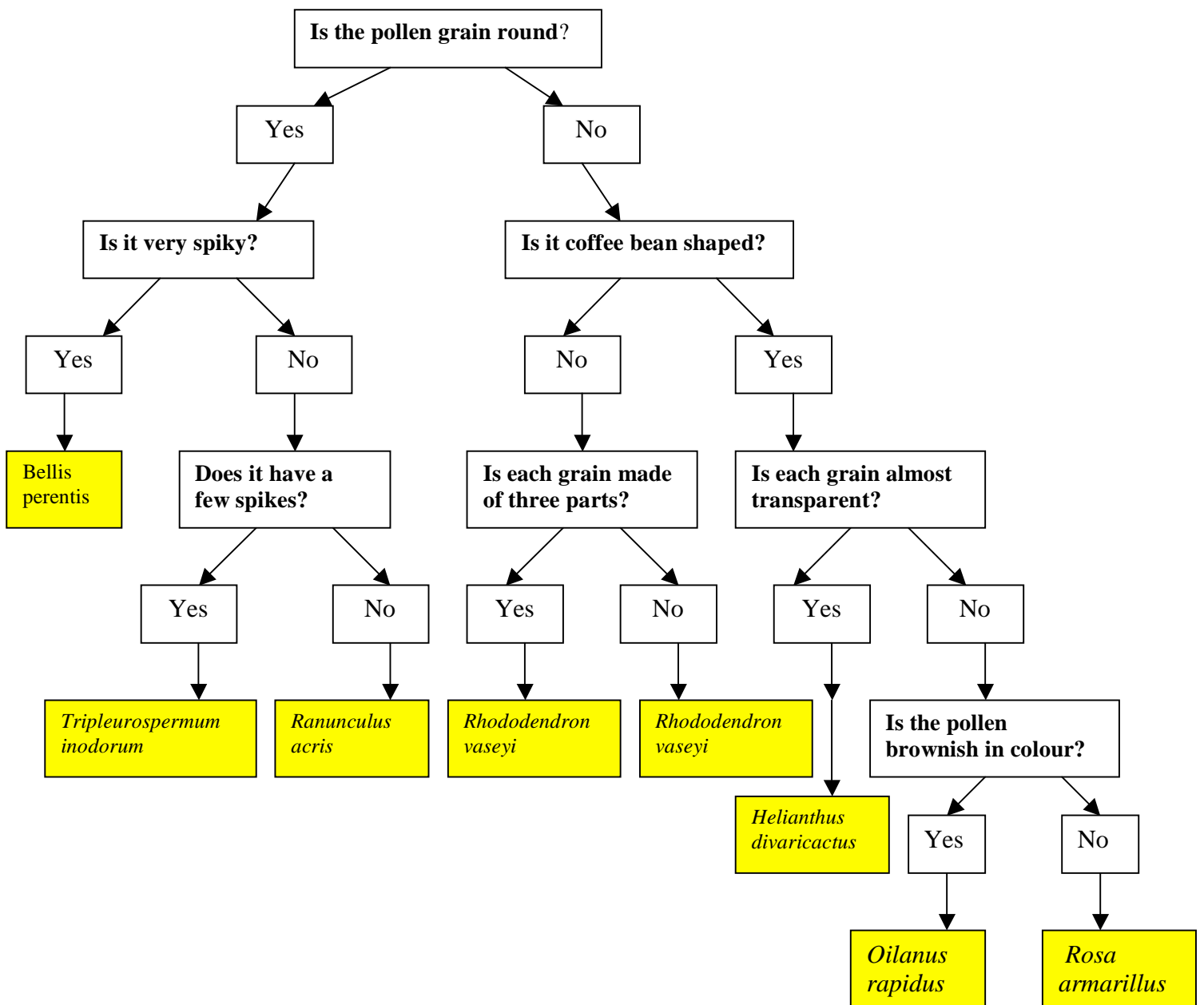
## Pollen Analysis

The following pollen samples were taken from the clothes of the 4 different suspects. You may find this useful in your investigation. A key to identify each type of pollen is given on the next page.





# Dichotomous Key for Pollen



# Codes

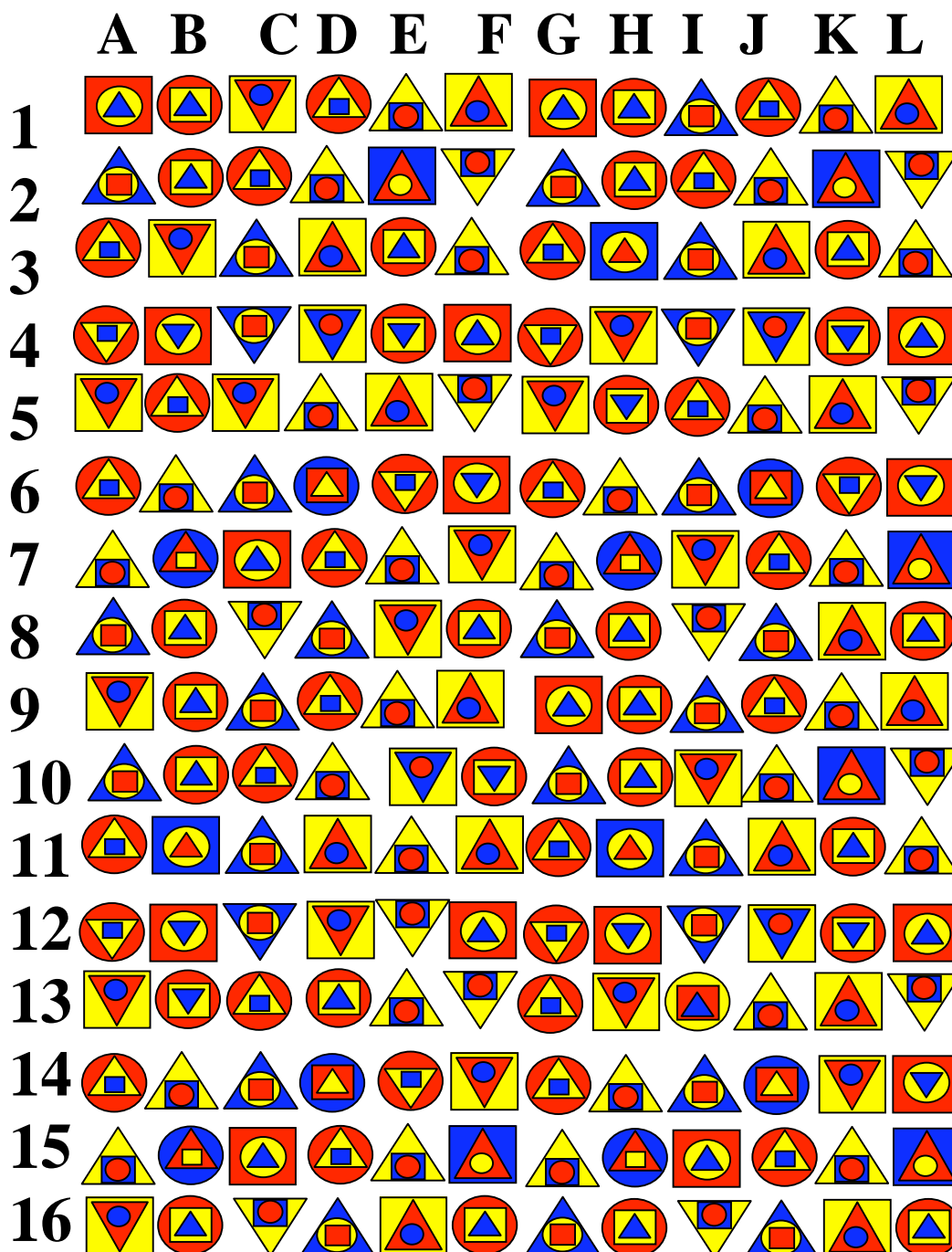
You can get more information on the victim and suspects if you solve the following clues to obtain the access codes to the information at

<http://icszweb2.ch>.

1. Find:

A blue circle within a down pointing red triangle all within a yellow square which is to the left of an up pointing blue triangle within a red square surrounded by a yellow circle.

Its co-ordinates give you the access code to Erik van Groningen's Will

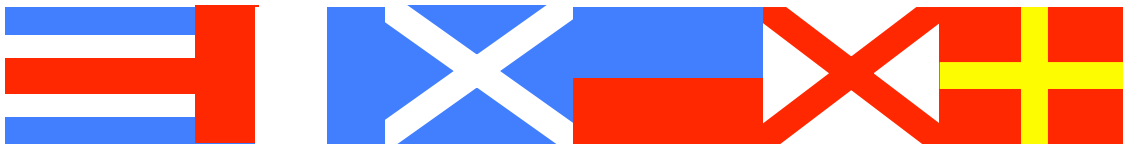


## 2. Sudoku

The six-digit answer ABCDEF to this grid will give you the code to find information about the past life of Moonwind.

	5	3		9	8		F	4
			1		A		8	7
1	D				5	9	3	C
7		5		3			2	
		E	8	B	6			
	6			7		3		5
	1	4	5					3
9	7				2			
5			6	4		8	7	

3. All at sea with this clue! Solving it will give you a 6-letter password for information on some secret files.



4. Solve this clue to get the 6-letter password for a closer inspection of de Burberry's ID card. You need the capital ?????? of each of the following countries. Hint some are very close!



5. Use your magic eye to see this Ancient Egyptian! (6 letters)  
This will give you access to van Groningen's newspaper article.

6. Go to the following web site:

<http://www.gis.zh.ch/gb4/bluevari/gb.asp?app=GB%2DSWISSIMAGE&rn=5%247>

type the following address in the "adress suche" boxes

strasse -


Nr -

Ort -

then press return

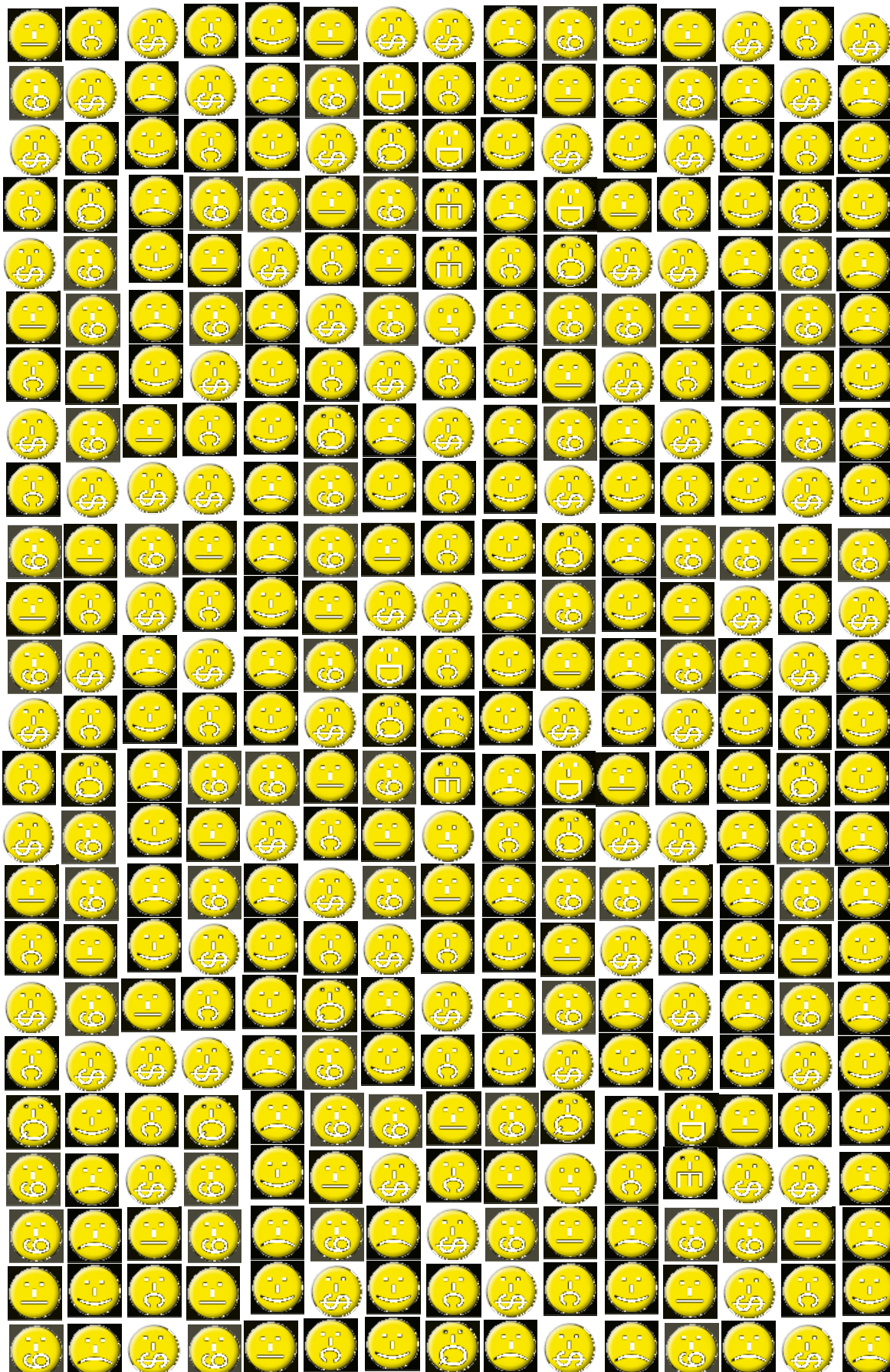
Change the scale on "massstab" to 1:

then press return

Click on the information icon on the top tool bar 

Go to the end of the running track and click on the back corner of the long jump sand-pit. The first 6 numbers of its co-ordinates are the password to find information on Witherspoon's Financial status.

7. Solve this clue to see who carried out the bank robbery. It will frustrate you so much that you will cry, but beneath the teardrops is a 4-letter boy's name.



**8. On the map of Zumikon in clue 6, go to the following 3 locations:**

689485 / 243697

689423 / 243662

689500 / 243733

**Collect the 3 code symbols. These will spell a simple word associated with blue that will give you access to a clue about another secret file.**

**9. On the map of Zumikon in clue 6, go to the following 3 locations:**

689557 / 243815

689481 / 243616

689603 / 243672

**Collect the 3 code symbols. These will spell a simple word that will give you access to a clue about Anna Appelstroop's Marriage to Erik van Groningen.**