



Forensic Workshop I: Theft at John Williams High

DEAR TEACHER:

Thank you for allowing us to enrich your students' education with this program. We hope that our combined efforts will provide a worthwhile, enjoyable and 'smooth' Museum visit.

Please note:

Enter your bookings in your Daybook (forgotten bookings are disappointing).

Class size is 30 students.

Double check your confirmation ticket for accuracy and inform us of any changes immediately.

Cancellation policy:

7 days notice must be provided to avoid being charged for your program.

Call us at 988-0626 if you have any students with special needs in your class or if you prefer to have particular areas of the program emphasized.

Divide your class into two groups before arriving. One supervisor per group is required to follow behind the students.

Arrive early out of courtesy to our volunteers and for an optimal experience.

Have the admission fees collected before arriving and make the payment to the Museum box office (located on main level) before the program's starting time. Please make cheques payable to The Manitoba Museum.

Class control remains the teacher's responsibility.

Lunches: A number of areas in the Museum complex or the surrounding area are suitable for lunch. Spaces cannot be booked in advance. For more information phone 988-0626

Jackets and lunches can be stored in pull-out racks located near the classrooms on the lower level of the Museum. Valuables should be left at home.

Call 988-0626 or write us if we can help you develop specific Museum activities or if you have questions, suggestions or concerns.

We appreciate hearing from the students and often display their posters and drawings if you would like to share them with us.

Enjoy your visit!

THE PROGRAM: 1 ½ hours

A crime has been committed and your students must examine the evidence to find the culprits. Students rely on their sleuthing skills at six stations in this hands-on approach to the methods of basic forensic science.

PROGRAM OUTLINE:

1. This program takes place in one of our classrooms on the lower level of the Museum Complex.
2. After a brief introduction and slide show describing the crime, students rotate through six different stations making observations and recording their findings. Each station consists of a different piece of evidence to be analyzed.
3. Once all the evidence has been examined, the class shares their findings with each other in a group discussion.

PRE-VISIT SUGGESTIONS:

Discuss the difference between the terms **evidence** and **inference**.

Have your students research and answer the following questions. What is DNA? Where is it found and what does it look like? How is DNA used by scientists to identify individuals?

FOLLOW-UP ACTIVITIES:

1. Have the students write a story explaining what they think happened.
2. Have the students write about the interrogation of a particular suspect. What questions do they want answered?
3. Invite a guest speaker from the RCMP to discuss how crimes are solved. Have the guest talk about what is really done and what is "Hollywood".

PLEASE MAKE A COPY OF THE DETECTIVE NOTEBOOK AND SUMMARY OF OBSERVATIONS SHEET FOR EACH STUDENT

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FORENSIC SCIENCE WORKSHOP'S DETECTIVE NOTEBOOK - THEFT

1) **Tire Impressions and DNA Fingerprints:**

- a) Tire impressions were found in the mud near the front door of the school. Do any of the tires match the mold taken from the crime scene? _____
If yes, whose tire is it? _____
- b) A few spots of blood were found on the floor of the classroom. Which suspect has DNA that matches the sample of blood found in the classroom? _____

2) **Fibers:** A few shreds of cloth were found at the scene of the crime. Using color as a basis for comparison, were any suspects wearing matching fibers? Who? _____

3) **Chromatography:** A note was found at the scene of the crime and the ink was analyzed using chromatography.

- a) What colour was the pen that wrote the note? _____
- b) What pigments (colours) did the ink separate into? _____
- c) Who owns the pen? _____

4) **Footprints:** Measure the length and width of the footprints to determine if they match any of the suspects and record your findings in the chart below.

Length (cm)	Width (cm)

Does this match the shoe size of any of our suspects? _____

5) **Tape Lift:** Stick a strip of scotch tape onto each item of clothing, and then transfer your tape onto the table below. What kinds of things did you pull off each sweater (grass, hair, crumbs, lint, etc.)?

Felicia		Wayne	
Biff		Kendra	
Vera			

Did any clothing have beaver hair stuck to it? _____

6) **Physical Matching:** A piece of a car's grill, (on the front of the car) was found in the school parking lot. Do any of the suspects have a car grill that is missing the matching pieces? Who? _____

FORENSIC SCIENCE WORKSHOP'S SUMMARY OF OBSERVATIONS

SUSPECT	VERA	WAYNE	FELICIA	KENDRA	BIFF
WHOSE TIRE MATCHES THE MOLD TAKEN FROM IN FRONT OF THE SCHOOL?					
WHOSE DNA MATCHES THE DNA FROM THE CRIME SCENE?					
WHOSE SHIRT DID THE FIBERS BELONG TO?					
WHOSE PEN WAS USED TO WRITE THE NOTE					
WHOSE FOOTPRINTS MATCH THOSE FOUND IN THE CLASS-ROOM?					
DID ANY OF THE SUSPECTS HAVE BEAVER HAIR ON THEIR CLOTHES?					
WHOSE CAR GRILL WAS MISSING THE PIECE FOUND IN THE PARKING LOT?					

Use the space below to write a short description of the "who, what, where, why and how".