



THE MAD SCIENCE FORENSIC LAB

The Forensic Lab is designed to target the Grade 6 Alberta Curriculum's Science unit *Evidence & Investigation*. This program will challenge students to learn and apply the concepts, tools and techniques of forensic scientists, detectives and investigators with hands-on activities, inquiry-based discussions and stimulating take-home projects. The program is made up of 5 cumulative classes, each of which are 60 minutes in length. *The Forensic Lab* is an excellent resource that is convenient (no bussing required & we bring all necessary equipment, and materials), educational and of course fun!

SPECIFIC EXPECTATIONS THAT MEET THE ALBERTA CURRICULUM:

- ✿ Apply observation and inference skills to recognize and interpret patterns and to distinguish a specific pattern from a group of similar patterns.
- ✿ Identify the possibility of several possible answers to a question by making predictions or hypotheses.
- ✿ Recognize evidence from recent human and animal activity.
- ✿ Recognize that evidence found at the scene of an activity may have unique characteristics that allow us to make inferences about the participants and the nature of the activity, and to be able to give examples of how specific evidence may be used.
- ✿ Recognize the importance of accuracy in measurement and observation.
- ✿ Apply suitable methods to record, compile, interpret and evaluate measurements and observations.
- ✿ Observe a set of footprints to suggest the direction of travel.
- ✿ Investigate evidence and link it to a possible source by:
 - ✿ analyzing ink from different pens using paper chromatography.
 - ✿ comparing samples of fabric.
 - ✿ classifying fingerprints collected from various surfaces.
 - ✿ analyzing handwriting samples to identify the handwriting of a specific person.

BREAK DOWN OF EACH SESSION

SESSION ONE: Students will pre-test their forensic skills and knowledge through a series of observational activities that utilize their human senses. They will explore different techniques that Forensic Scientists use in collecting, examining and analyzing evidence, while working with others to compare conclusions. **TAKE HOME ACTIVITY: THE SCENE SOLVER.** Reconstruct a crime scene with fun scenes and reusable stickers in the *Mad Science Scene Solver*. Students set up the scene and then analyze the evidence to uncover the crime.

SESSION TWO: Students will explore detective and forensic communication through a series of activities that challenge them to use "code" language. Students will also put their detective skills to the test by comparing handwriting styles and identifying and analyzing the writing tools used through paper chromatography. **TAKE HOME ACTIVITY: SECRET CODE BREAKER.** The *Mad Science Secret Code Breaker* helps develop the decoding skills of a Jr. Detective. Students practice undercover communication with the code wheel and color filters included - a must for any undercover operation.

SESSION THREE: Students will learn how pH levels and chemical reactions are used to identify substances left behind at the scene of a crime. In groups, students will test for pH, learn how anti-serums are used for blood typing, and how we can use known substances to identify unknown substances by observing and recording the physical characteristics of the chemical reactions that occur between them. **TAKE HOME: INSPECTI-KIT.** The *Mad Science Inspecti-Kit* puts the spotlight on crime. Children use the tools to collect on-site evidence for at-home analysis. This kit investigates the details!

SESSION FOUR: Students learn how to differentiate and classify different animal tracks and human footprints as well as learn how we can hypothesize on the direction of travel and the encounters that were made along the way. Students will also learn how we can identify materials and fabrics that are left behind at the scene of the crime and on the route of travel by seeing how they react to known substances. **TAKE HOME: MAD SCIENCE CASE STAMPER.** Students can stamp 4 different storyboards with various footprints and animal tracks based on predetermined scenarios to crack the case. Footprints and animal tracks have never been so fun!

SESSION FIVE: In groups, students will participate in a culminating activity that utilizes all the skills and information they have acquired over the previous sessions to solve the ultimate crime. **TAKE HOME: MAD SCIENCE SPY GLASSES.** These reverse glasses are not only cool, but will put eyes on the back of your head! Using the concept of reflection for undercover observation these are a must for all cool agents on covert assignments and graduates of *The Forensic Lab!*



PRICING IS VERY AFFORDABLE AND VARIES WITH THE TOTAL NUMBER OF STUDENTS.
DISCOUNTS ARE GIVEN TO SCHOOLS THAT BOOK FOR MORE THAN ONE CLASSROOM.

PLEASE CALL US WITH ANY QUESTIONS OR TO SET UP *THE FORENSIC LAB* FOR YOUR SCHOOL.

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Taking reservations now for [The NASA Academy of Future Space Explorers Club](#) for 2019/2020.
Classes can take place during the lunch break or after school.