

GETTING STARTED

AN INTRODUCTION TO ENVIRO-FILES II

Science Alberta Foundation is pleased to make *Enviro-Files II*, one of our Mysteries in a Crate programs, available in your community!

The mystery series crates are designed for families, students in grades four to nine and various community groups. Participants are encouraged to solve a series of mysteries or problems using their observation and deduction skills. Each mystery program is divided into seven labs representing different topics and investigations in science. Each lab includes:

- A comic-style scenario depicting a potential crime or environmental mystery
- Instructions that present the challenge and methods to solve the mystery
- Various hands-on materials to engage participants in learning through investigations
- A booklet in which to record answers to the questions presented in each scenario.

Due to the success of the original *Enviro-Files* crate, Science Alberta Foundation, with the support of Alberta Ecotrust created our first crate sequel, *Enviro-Files II*. This program is a similar format to the first *Enviro-Files*, but presents an entirely different set of seven environmental mysteries.

Emily and David are youths with an eye on the state of the environment in their own backyard and community. Join them as they discover what seem to be unusual environmental events and help them find out the most likely cause. Participants will investigate real scenarios that include dead fish at a dugout, a dead wolf within town limits, birds covered in crystals, a strange fish, a declining population of trees, a murky pond, and increased sightings of coyotes. Are humans responsible for contributing to these environmental events, or are Emily and David witnessing natural phenomena? Activities include scientific investigations such as examining oxygen content in water, reviewing autopsy results, determining the effects of temperature on crystal formation, and conducting a population sampling study.

The *Enviro-Files II* crate meets the grade 6 and 7 science curriculum. This activity guide provides the background information necessary for teaching about Evidence and Investigation, and Interactions and Ecosystems at the Division II and III levels as well as detailed instructions and answers for each activity. The activity topics are as follows:

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| Puzzling Ponds | <ul style="list-style-type: none">• Did people or animals living close to the pond affect its quality?• Do the living things in the water affect its quality? |
| Grounded Geese | <ul style="list-style-type: none">• Did the birds die of lead poisoning?• Did the birds die of salt encrustation? |
| Coyote Caper | <ul style="list-style-type: none">• Are coyotes getting past the highway fences?• Is there food attracting coyotes to the highway? |
| Mosquito Madness | <ul style="list-style-type: none">• Did rain cause the mosquito population to increase?• Did human changes to the land or water cause an increase in the mosquito population? |
| Fishy Findings | <ul style="list-style-type: none">• Is the warm water killing the fish?• Is an algae bloom in the pond causing the fish to die? |
| Tree Troubles | <ul style="list-style-type: none">• Is the dam affecting the trees?• Are the deer affecting the trees? |
| Wandering Wolf | <ul style="list-style-type: none">• Was the wolf killed with poisoned dog food?• Did the wolf die of disease? |