



GR. 3 ANIMAL LIFE CYCLES

TEACHERS PACKAGE

**An Outdoor Exploration of
Animal Life Cycles**

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INTRODUCTION

Welcome to the teacher's planning and activity package for **ANIMAL LIFE CYCLES**. This outdoor program provides a hands-on look at the life cycles of different plants and animals found in the Peace River Region. Students will take a closer look at life cycles, including local amphibians and beavers and consider how animals survive in different seasons.



PROGRAM AT A GLANCE

Pre-Visit Activities: 60-90 minutes depending on activities selected

Time Required: 2 hours outdoors

Best season to book program: September, May, June

Suggested Locations: Saskatoon Island Provincial Park, Moonshine Lake Provincial Park, Young's Point Provincial Park or a natural area near you.

ADULT REQUIREMENTS:

We ask that you provide one adult supervisor for every 4-5 students. The adults will assist students with activities and help them remain on task with the group.

PROGRAM OUTLINES

All plants and animals change as they grow and the Provincial Parks are a great place to examine life cycles more closely. Students will experience the challenges of changing from a tadpole to a frog, look at homes for animals at different stages of their lives and consider how life cycles make it easier to survive certain seasons.



This program package will give you details on how this program fits with the Alberta Curriculum for Grade 3 Science, a planning checklist, information on what to bring and parent volunteer information.

In addition, a variety of supplementary pre-fieldtrip classroom activities, extension activities and resource materials are included to help you prepare your class for the fieldtrip and build on the topics covered in the **ANIMAL LIFE CYCLES** program.

GRADE 3 CURRICULUM TOPICS

Life Science:

E: Animal Life Cycles: (5-10) Describe the appearances and life cycles of some common animals and identify their adaptations to different environments.



SPECIFIC LEARNER EXPECTATIONS

- Observe and describe the growth and development of at least one living animal, as the animal develops from early to more advanced stages.
- Predict the next stages in the growth and development of at least one animal.
- Identify the food needs of at least one animal and describe changes in how each animal obtains food through different stages of its life.
- Demonstrate awareness that animals require different habitats in order to meet their basic needs of food, water, shelter and space.
- Recognize adaptations of young animals to their environment and identify changes in this relationship to its environment as it goes through life.
- Identify examples of environmental conditions that may threaten animal survival.
- Recognize that habitat preservation can help maintain animal populations and identify ways that students actions can assist habitat preservation.

CROSS-CURRICULAR CONNECTIONS

This program had been designed to meet specific curriculum requirements for the Grade 3 Science Program but there are also many curriculum connections within the Language Arts, Social Studies, Mathematics, Physical Education and Art programs of studies.



This program is also designed to reflect the goals of Parks and Protected Areas:

- **Preservation & Protection**: to preserve the province's natural heritage, associated cultural heritage, ecological functions and biodiversity for current and future generations.
- **Tourism & Community**: to contribute to communities and the economy by fostering sustainable tourism experiences and ecosystem services such as clean air, land and water.
- **Heritage Appreciation & Education**: to instill pride and encourage stewardship by developing appreciation and understanding of Alberta's significant natural and cultural heritage.
- **Outdoor Recreation & Healthy Living**: to provide inclusive nature-based outdoor recreation opportunities that contribute to societal health and well being.

FACILITIES AND SERVICES

1. A professional interpreter will guide you on your fieldtrip and be there to answer any questions about the topics discussed .
2. All equipment needed for the fieldtrip will be included. There will be a break during lunch time which your class may want to bring balls, Frisbees or any other supplies for students to use during free time.
3. If your program is at a Provincial Park washrooms are located throughout the area.



NOTE: If you are spending the day in the Provincial Park, we ask that you bring any supplies that you may need for that day. If you are interested in booking the **GROUP USE** or **DAY USE** for use before or after you interpretive program, please contact the Alberta Parks office to see if there is availability.

ALBERTA PARKS OFFICE:

780-538-5350



PLANNING CHECKLIST

- Arrange transportation to and from the Park.
- Know the meeting location (Staff will let you know prior to fieldtrip).
- Supply name tags for the students.
- Check student health forms for Allergies that might be of concern. (Ensure that the Parks Staff is aware of any issues prior to the program. It is still the teachers responsibility to be prepared and administer any drugs associated with an allergy or illness).



- Arrange for and prepare adult volunteers (**A ratio of 1 adult per 5 students is recommended**).
- Ensure that students have a lunch and filled water bottle if necessary.
- Ensure students are dressed appropriately for the weather. All our programs are run in rain, snow or shine unless contacted. (See next page)
- Have a class discussion that reviews the role of Provincial Parks, Park Rules and behavior expectations.



WHAT TO BRING

The weather can be unpredictable. Please ensure that your students **DRESS FOR THE WEATHER!**

WHAT TO WEAR:

- Long pants
- Warm Sweater or Sweatshirt (Dress in layers)
- Waterproof Jacket and other Rain Gear
- Sturdy Walking Shoes
- Rubber Boots (Optional for pond dipping but highly recommended)
- Warm Socks (An extra pair of socks is helpful if other pair gets wet!)
- Toque, Gloves or Mittens
- Sunglasses or Hat

OPTIONAL ITEMS:

- Any Medications
- Binoculars
- Field Guides to Plants, Animals or Bugs
- Snacks, Lunch, Water Bottle and Water to Drink!
- Bug Repellant
- Sunscreen



PARENT VOLUNTEER INFORMATION

ROLE: Parent volunteers are a wonderful addition to any education program. Their main role is to help the interpreter lead groups through various activities during the fieldtrip and help keep students focused. Parent volunteers do not have to have any previous knowledge of the park.



WHAT TO BRING FOR PARENT VOLUNTEERS:

All the activities are outdoors so please dress for the weather including protection from the sun, rain, snow or bugs. The program also involves a fair amount of walking so please wear comfortable, sturdy footwear.

PRE-FIELDTRIP ACTIVITIES

The preparatory activities described here will introduce the topic of insects, spiders and biodiversity to your students and will allow them to practice the skills to be used during the program.

- Have the students begin a journal about an animals life cycle. (journal making can be a great art project). How many different stages are in their animals life cycle? What are some interesting things that happen in the animal's life cycle? We all go through changes. Do we grow in the same way that other animals grow?
- Hand out the Nature's Life Cycles Word Search to students



EXTENSION ACTIVITIES

There are many other activities that can be used to expand on topics covered during this field study.

- Have the students write in their journal after the program and see if they can answer their own questions about animal life cycles.
- Have the students write a story or conduct research on an animal that lives in the Grande Prairie Region.
- Play “Camouflage Creatures” (attached) From Science is...
- Have the students get involved with the Alberta Amphibian Monitoring Program (See attached page)

OTHER RESOURCES

- Alberta Amphibian Monitoring Program web site: <http://www3.gov.ab.ca/srd/fw/amphib/index.html>
- “Alberta’s Threatened Wildlife” teacher guides including “Northern Leopard Frog” are available from Alberta Environment at <http://www3.gov.ab.ca/env/resedu/materials.cfm>
- *Knee-High Nature: Spring in Alberta.* By Dianne Hayley and Pat Wishart. 1991.
- *Science Is...a source book of fascinating facts, projects and activities.* By Susan V. Bosak
Scolastics Canada. 1991.



NATURE'S LIFE CYCLES WORD SEARCH

L S D D R F O N C J F P U Y G
 M C I Q B N Y R H A N S J I Z
 R B B S C I M U A V A T J N F
 E Y R E O A R S N M I A F I S
 P Q E O Y H D D G I B G P X T
 T P V C A L P H E N I E F W H
 I G A U I L F R Z I H S E S W
 L B E B I A S R O L P Z I T E
 E Y B H D M P Y E M M F B F L
 P H Y I G M I O T T A K O R O
 L Q B O S A D J K O T T W O P
 E V N C U M E F G U A U E G D
 M N P K D J R W S V L D B M A
 M R T C E S N I M L M L N U T
 T X E L Y C E F I L T T Z T U

AMPHIBIAN
 BEAVER
 BIRD
 BUTTERFLY
 CHANGE
 FISH

INSECT
 FROG
 LIFECYCLE
 MAMMAL
 METAMORPHOSIS

REPTILE
 SPIDER
 STAGES
 TADPOLE
 TOAD

CAMOUFLAGE CREATURES

Materials: Approximately 100 coloured toothpicks, pipe cleaners, or pieces of wool, made up of about 25 of each of four colours (one colour should blend into the game area Ex. Green objects on a green lawn.)

Doing It:

- Scatter coloured objects throughout an area of about 20 square meters
- Children play the role of birds looking for “insects” (coloured objects) to “eat.” Each child has a “nest” (a place to collect coloured objects) about 25 m from the feeding area.
- One at a time, birds run to the feeding area to find food. Each bird takes its turn and makes several flights. The rules: only one insect can be caught per flight; birds don’t care what colour insects they eat, so they grab the first food they see; birds can’t run their hands over the ground, so they pick up insects only after spotting them; birds keep moving while they look for food.
- After several flights, how many of each colour of insects has each bird collected? What colour of food is hardest to find? Why? What colour would the children want to be if they were an insect?





Hop Into Alberta's Amphibian Monitoring Program!

The Alberta Amphibian Monitoring Program was initiated because of a need for information on long-term population trends and current distributions of amphibians in Alberta. Concern has been expressed over declines in many species of amphibians around the world. Here in Alberta, the [northern leopard frog](#) (*Rana pipiens*) is absent from much of its former range, and the remaining populations are greatly reduced. There are two components to this program: 1) volunteer data collection, and 2) intensive site based monitoring ([RANA, Researching Amphibian Numbers in Alberta](#)).

The program has been quite successful with 265 individual amphibian reports from 17 volunteers between 1992 and 1994. In 1996, 85 volunteers from all over the province submitted information to the program; and in 1997 over 100 volunteers sent in 734 records. Ten species of amphibians were recorded including: [tiger salamander](#) (*Ambystoma tigrinum*), [long-toed salamander](#) (*Ambystoma macrodactylum*), [plains spadefoot](#) (*Scaphiopus bombifrons*), [boreal \(western\) toad](#) (*Bufo boreas*), [great plains toad](#) (*Bufo cognatus*), [Canadian toad](#) (*Bufo hemiophrys*), [boreal chorus frog](#) (*Pseudacris triseriata*), [spotted frog](#) (*Rana pretiosa*), [wood frog](#) (*Rana sylvatica*) and [northern leopard frog](#). Although a broad area of the province has been sampled, there are many areas that still need to be surveyed.

Why participate in the monitoring program? The data you collect is of vital importance to better understanding the numbers, trends, and distribution of amphibian populations in Alberta. Also, simply put, being a volunteer participant is a fun and great way to get outdoors, get in touch with nature and participate in an activity the entire family can enjoy. How can you get involved? The procedure is simple:

- Contact us for a free monitoring manual containing information on the identification, ecology and natural history of Alberta's amphibians. Included along with the manual is a cassette tape of amphibian calls, and a copy of our "Croaks and Trills" newsletter.
- Read the manual and listen to the cassette tape to familiarize yourself with Alberta's amphibians.
- Choose a site or sites to survey.
- Go out and listen for frogs and toads calling, and walk the study site (optional) recording evidence of amphibians such as egg masses, tadpoles, and/or adults.
- Fill out the simple data sheets provided at the back of the manual, and send them to us at your earliest convenience.

If you would like more information or would like to participate in the amphibian monitoring program, contact Kris Kendell, e-mail: kris.kendell@gov.ab.ca, telephone: (780) 422-4764 (to telephone toll free within Alberta, call 310-0000 and ask for the above number), or write:

Amphibian Monitoring Program

Alberta Environment

7th Floor, O.S. Longman Building

6909-116 Street