

WildFiles.TV

Teachers' Guide for

The Frog Who Would Be Prince

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SERIES SYNOPSIS

WildFiles.TV is a 13-part, interactive science and nature television series for school-aged children. Each half-hour episode profiles a different animal species in a dramatic story of a young character with an animal mystery or a problem to solve. Hosts Chris and Ava, from the Wild Files research station, and real-life Canadian scientists provide information and facts about the animals throughout each episode.

Detailed files of the same 13 animals are also found in the virtual clubhouse, *WildFiles.TV* Interactive. Here children can extend their science learning from the videos and explore the wildlife files and over 100 activities including games, puzzles, quizzes and challenges. The activities are designed to be fun, appealing and accessible to a variety of learning styles with the use of brightly coloured graphics, video, animation, audio, interactive activities and text.

WildFiles.TV promotes environmental consciousness while encouraging children's active exploration, problem solving, science learning and creativity. The dramatic storyline in the videos is used to present science concepts in an entertaining, yet realistic format.

DVD CONTENTS – Wood Frog Episode

- 23-minute video
- Interactive animal content in text, audio, animation, cool facts, video clips and puzzles
- An original song about the animal, with lyrics
- 1 science project lesson plan
- 1 crossword puzzle with answer key
- 1 word search with answer key
- 1 quiz with answer key

CURRICULUM CONNECTIONS

Science, Outdoor and Environmental Education, Social Studies, Health and Life Skills, Language Arts or Fine Arts and Information and Communication Technology.

LEARNING OBJECTIVES (based on Alberta curriculum)

Grade 1: Needs of Animals and Plants

- Recognize that some plants and animals must adapt to extreme conditions; e.g. arctic and desert animals.
- Observe, describe and compare living things.
- Classify some common local plants and animals into groups on the basis of physical characteristics; e.g., adaptations for survival such as beaks, claws, or prickles.
- Identify examples of animals that are normally under human care (domesticated) and those that are normally independent of human care (wild).

Grade 3: Animal Life Cycles

- Classify a variety of animals, based on observable characteristics; e.g., limbs, teeth, body covering, overall shape, backbone.
- Observe and describe the growth and development of various species from a variety of groups and identify similarities and differences in their developmental sequences.
- Predict the next stages in the growth and development in various species and identify similarities and differences in their developmental sequences.
- Identify the food needs of animals from different groups and describe changes in how each animal obtains food through different stages of its life.
- Demonstrate awareness that parental care is characteristic of some animals and not of others, and identify examples of different forms of parental care.
- Demonstrate awareness that animals require different habitats in order to meet their basic needs of food, water, shelter and space.
- Recognize adaptations of a young animal to its environment, and identify changes in its relationship to its environment as it goes through life.
- Identify examples of environmental conditions that may threaten animal survival, and identify examples of extinct animals.
- Recognize that habitat preservation can help maintain animal populations, and identify ways that student actions can assist habitat preservation.
- Demonstrate knowledge of the needs of animal studies, and demonstrate skills for their care.

Grade 5: Wetlands

- Identify some plants and animals found at a wetland site, both in and around the water, and describe the life cycles of these plants and animals.
- Identify and describe some adaptations that make certain plants and animals suited for life in a wetland.
- Understand and appreciate that all animals, not just the large ones, have an important role in a wetland.
- Recognize that some aquatic animals use oxygen from air and others from water, and identify examples and adaptations of each.
- Identify human actions that can affect the abundance or survival of living things in wetland ecosystems; e.g. adding pollutants, changing the flow of water, trapping or hunting pond wildlife.
- Identify individual and group actions that can be taken to preserve and enhance wetland habitats.
- Recognize that changes in part of an environment have effects on the whole environment.

Grade 7: Interactions and Ecosystems

- Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions such as interactions, interdependence, human impact and needs.
- Trace and interpret the flow of energy within an ecosystem by examining consumers, producers, decomposers, food webs, how matter is recycled and the effect of pollutants.

Grade 9: Biological Diversity

- Investigate and interpret diversity among species and within species and describe how diversity contributes to species survival examining concepts such as variation, niches, dependencies among species, and species survival.

Grades 7-9 Outdoor and Environmental Education: Environmental Core

- Develop knowledge of the diversity of life found within these environments.
- Interpret evidence of interaction between a living thing and its environment.

Grades 1-9: Health and Life Skills

- Relationship Choices: Understanding and Expressing Feelings

Many of the problems faced by the young characters in the *WildFiles.TV* episodes may be used to promote discussion under this general learning outcome. Problems such as resolving a dispute with a friend, feelings of sadness after a pet dies, fear of new situations, dealing with change, adapting to a new school environment or to the changes that accompany adolescence are all topics addressed in the series.

EPISODE TITLE: *The Frog Who Would be Prince*

FEATURED ANIMAL: Wood Frog

SUMMARY:

Growing up can be frustrating when you want to hop right from being a kid to a grownup. Finding out about the life stages of wood frogs helps Lucy put her own age in perspective.

Chris and Ava are at odds over technology again! He's having trouble with Ava's latest version of the underwater camera, the Aqua-peeper, so he's not thrilled about having to take it out again to show Lucy some frogs. Lucy wants to grow up as fast as a frog, and can't believe her mom won't let her dye her hair green and quit school when she's practically a teenager. Chris takes her to the frog pond to meet expert Brian Eaton and discover how wood frogs deal with all the different **stages of their growth**, as they transform from **egg** to **tadpole** to **froglet** to full-grown frog. Lucy learns all about wood frog's **wetland habitat, physical characteristics, diet, reproduction** and some of the amazing **adaptations** that help wood frogs to survive. Lucy comes to understand that growing up can't be rushed and that kids and frogs must go through some amazing transformations before they become adults.

VOCABULARY: Video

Students can listen for these terms to find many of them defined in the video.

*(*Definitions found in the Wild Words glossary at www.wildfiles.tv)*

algae*	fertilization*	pupae (<i>stage in which larvae in cocoons transform to their adult form</i>)
amphibians*	gills*	reproduction*
amplexus*	hatch	spawns*
camouflage*	host (<i>animal that a parasite feeds on</i>)	tadpoles
courting	invertebrates*	toxic*
digestive system	mid-dorsal stripe	transformation
ectotherms*	migrate*	vegetarians
egg masses	parasitic*	wetlands
embryos (<i>an organism before full development, birth, or hatching</i>)	porous*	

VOCABULARY: Interactive Content

(Definitions pop up on the DVD when terms are scrolled over)

acid rain	heliotherm	population
algae	herbivore	porous
amphibian	introduced species	predator
amplexus	invertebrate	<i>Rana sylvatica</i>
copulate	longevity	ranid
dorsolateral fold	melanophore	thermoregulation
ectotherm	mortality rate	ultraviolet radiation
fertilize	pathogen	
gestation	pesticide	

THEMES:

- Amphibians
- Life cycles
- Wood frog adaptations
- Understanding and accepting the pace of your own maturation
- Learning to compromise

SONG: "Bob the Woodfrog" – sing along with Chris! (See lyrics on pg.6)

DISCUSSION QUESTIONS: (after viewing video and exploring the interactive content)

- The video tells us that wood frogs are amphibians. What is an amphibian? Give examples of some characteristics of amphibians. How do amphibians differ from other animals like mammals?
- What are the stages of a wood frog's life discussed in the video? How do these stages change the way a frog lives?
- Frogs regulate their body temperature in a few different ways. Give examples of how they deal with the heat or cold? How do you regulate your body temperature?
- Lucy wants to grow up fast. Have you ever felt like this? What did you do about it?
- Lucy wants to dye her hair green and quit school. How does Lucy compromise with her mother? Give an example of a time you had to compromise. What did you do? Do you think it was a good solution?

ACTIVITIES:

- After watching the video, have students review the interactive content in groups or independently. Once they have finished all the material, have them complete the wood frog word search, crossword puzzle or quiz to evaluate their learning.
- Visit a local pond to explore wetlands and observe frog egg masses, tadpoles, froglets and full-grown frogs. Invite a guest speaker into the classroom to bring live frogs and other amphibians to present to the class.
- Research and identify the features that make an animal an amphibian. Create a poster to help locate a missing amphibian like Wood Frog Bob. Include a description and information that will help to identify this amphibian (where it lives, what it eats, behavior, etc.).
- Create a diagram representing the life stages of a wood frog. Make another diagram representing the life stages of another animal like an insect or a mammal. Write a paragraph or make a chart comparing the life stages of these animals.
- Use the interactive content to find out what are some threats to wood frogs and other amphibians (predators and pollutants). Wood frogs are not an endangered species in Canada but other amphibians are. Research an endangered amphibian and write a brochure explaining what can be done to help this species.
- Write a short play about a situation where two people in a school have to reach a compromise. Present your play to the class or to another classroom. Vote to select a play to present at a school assembly.

HANDS ON SCIENCE:

Print out the complete lesson plan for this Hands on Science experiment.

Wood Frog - Freezing From Death

*Wood Frogs do something absolutely incredible to survive the Canadian winters. They freeze solid. You can observe this ability in action by using insects, spiders, and a fridge. * This is the experiment Chris and Lucy tried in the video.*

There are a total of 30 lesson plans for experiments and activities available to *WildFiles.TV* members on www.wildfiles.tv. Each activity is related to a science concept from an episode of *WildFiles.TV*.

EDUCATIONAL FEATURES:

WildFiles.TV resource:

- a) Addresses specific learner expectations.
- b) Encourages students to develop and practice skills in science inquiry.
- c) Addresses a variety of learning styles.
- d) Applies to a range of grade levels and abilities.
- e) Shows animal species in their natural habitat.

- f) Is wildly humorous.
- g) Integrates subject matter across several subject areas.
- h) Is teacher-friendly.
- i) Provides students the opportunity to extend learning.
- j) Addresses the Information and Communication Technology (ICT) learning outcomes.
- k) Is interactive.
- l) Provides practice and study opportunities.

MORE WILDFILES.TV TITLES:

Episode Title	Featured Animal
Arachnophobia On the Loose	Tarantula
Big Ol' Moose	Moose
Feather of Hope	Peregrine Falcon
Hare We Go!	Snowshoe Hare
Just Can't Bear It	Black Bear
Lair of the Tiger	Tiger Salamander
Lone Wolf	Wolf
Owl for One, One for Owl	Barred Owl
Strong as a Muskox	Muskox
Tale of the Giant Beaver	Beaver
You Go, Caribou	Caribou
You Say Buffalo, I Say Bison	Bison

WildFiles.TV
"Bob the Wood Frog"
Song Lyrics

So Wood Frog Bob he sat on a log and watched the time fly by
'Til his stomach said 'I must be fed' and groaned 'It's fly time, bye'
And that summer it seemed was like a dream, on that forest floor
There were bugs and lice, and ticks and mites a gulp from his front door.

CHORUS:

See Wood Frog Bob he couldn't read or jog
He couldn't talk; he couldn't block the draining of a bog
This is that frog's e-pi-logue
And what became of Bob...Bob the Wood Frog

Then fall came round and on the ground, the leaves fell from the air
And the bugs and lice and ticks and mites, began to be quite rare
Then his life was tossed when that there frost, made the forest still
So he did creep and did dig deep, right under a leafy hill

CHORUS

From beneath that hill Bob felt a chill as the snow piled high
While the winter froze within him rose some glycogen in his thigh
This antifreeze well it did ease the long long winter days
See Bob froze up like an ice cream cup until some time in May

CHORUS

Now spring came round and that there ground began to warm right up
Bob did awake then did migrate to join the puddle hop
And at that slough Bob he sure knew that he'd find a mate
And with his song it wasn't long until he did consummate.

CHORUS

See Wood Frog Bob he couldn't jog or read a catalogue
But he could eat and did he sleep, and his kids now fill the bog
But when Bob went to find his summer log
All that Bob saw...was a garter snake...and that was the end of Bob.