

WildFiles.TV

Teachers' Guide for

Lair of the Tiger

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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 – Salamander 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 Plants and Animals

- Observe, describe and compare living things.
- Identify ways in which living things are valued; e.g., as part of a community of living things, as a source of food, clothing or shelter.
- 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 2: Small Crawling and Flying Animals

- Compare and contrast small animals that are found in the local environment, including three invertebrates.
- Recognize that like humans, small animals have homes where they meet their basic needs of air, water, food, shelter and space; and describe any special characteristics that help the animal survive in its home.
- Identify each animal's role within the food chain.
- Describe the relationship of these animals to other living and non-living things in their habitat, and to people.
- Identify and give examples of ways that small animals avoid predators, including camouflage, taking cover in burrows, use of keen senses and flight.

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.

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.
- 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.
- Recognize that changes in part of an environment have effects on the whole environment.

Grade 8: Freshwater and Saltwater Systems

- Analyze factors affecting productivity and species distribution in marine and freshwater environments such as freshwater adaptations and human impact on freshwater environments.

Grade 9: Biological Diversity

- Investigate and interpret diversity among species and within species and describe how diversity contributes to species survival in terms of variation, niches, dependencies among species, and species survival.

Grade 9: Environmental Chemistry

- Investigate and discuss in general terms the role of different substances in the environment in supporting or harming humans and other living things such as the effects of DDT and biomagnification in food chains.
- Identify processes for measuring the quantity of different substances in the environment and for monitoring air and water quality and the effects of acids and bases on living things.

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: *Lair of the Tiger*

FEATURED ANIMAL: Tiger salamander

THEMES:

- Amphibians
- Life stages
- Wetlands
- Re-connecting with nature and the environment
- Using persuasion to resolve a conflict

SUMMARY:

A mysterious email message with a challenge lures Max out of his basement lair.

Chris doesn't need any convincing to help Jessica lure her brother Max away from his computer – unlike Ava, he doesn't understand all the fuss about gaming. Jessica says Max just isn't fun anymore and spends all his spare time playing computer games in his hole in the basement. She hopes Chris will have an animal to interest Max in the wild world outside. Chris decides that animal is the elusive, reclusive Tiger salamander because it reminds him of Max. Salamander expert Kris Kendell helps them locate a live salamander while Ava devises a plan that is certain to appeal to Max - a riddle promising a prize of gaming hardware. While they wait for Max to solve the riddle, Jessica learns all about Tiger salamanders including their **behavior, habitat, needs, reproduction and life stages, physical characteristics and diet**. Max follows the clues to explore the outdoors and finally solves the riddle, only to find that he's been tricked. He's a little upset until Ava assures him the game mole is real and she's also included software for him to make his own games. Max decides to design a salamander game with his sister, but first he needs to visit the pond to learn more about salamanders.

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)*

absorb	invertebrates*	neotenic salamanders
amphibian*	iodine (<i>a chemical substance required by living organisms</i>)	(<i>salamanders that don't mature from the larval stage</i>)
breeding season	larvae*	reproduce*
burrows	metabolic rate (<i>rate at which substances are broken down to produce energy</i>)	sedentary (<i>inactive</i>)
cannibalistic morph (<i>larvae that eats its own kind</i>)	mole salamanders	subterranean
digesting*		thermoregulate*
gills*		typical morph (<i>larvae</i>)

VOCABULARY: Interactive Content

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

acid rain	gill	population
<i>ambystoma tigrinum</i>	incubation	predator
amphibian	invertebrate	scat
cryptic	larvae	spermatophore
external ear	larval	terrestrial
fertilize	pesticide	toxin

SONG: *Sally and Stevie* – sing along with Chris! (Lyrics on pg.6).

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

- What is an amphibian? What are some examples of other amphibians? Identify the characteristics of an amphibian by comparing salamanders to other amphibians.
- Identify the different stages of a Tiger salamander's life. Are there any exceptions to this?
- Why is a pond or wetland the ideal habitat for a Tiger salamander?

- Chris thinks that Max is a lot like a Tiger salamander. What kind of animal are you like? Why do you think so?
- What kinds of things do you like to do in the outdoors? What are some things that might prevent you from spending time exploring nature? What could you do to make sure you get enough time outside?
- What do you think of the plan to lure Max out of the basement? What would you have done?
- Identify some questions you have about salamanders after watching the video.

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 Tiger Salamander Word Search, Crossword Puzzle or Quiz to evaluate their learning.
- Generate a list of questions students raised after watching the video. Use the library or Internet to find the answers.
- Invite a guest speaker to the classroom to bring a salamander and talk about amphibians.
- Chart the life stages of salamanders using diagrams and labels to point out the physical features and habitat of each stage. Use the interactive content as a source for the drawings and include the neotenic salamander stage.
- List the ways a salamander is adapted to its habitat. Compare these adaptations to those of other amphibians using a chart or Venn diagram. What do you notice?
- Create a skit or play showing how you would have lured Max out of the basement to explore the outdoors.
- Write a commercial or PSA encouraging kids to get outside and explore nature.

HANDS ON SCIENCE:

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

Tiger Salamander - pHatal pHormula

In some parts of North America acid rain has had an impact on salamander populations because they are sensitive to extreme levels of pH. In this activity, you can make your own pH indicator at home.

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
Lone Wolf	Wolf
Owl for One, One for Owl	Barred Owl
Strong as a MuskoX	MuskoX
Tale of the Giant Beaver	Beaver
The Frog who Would be Prince	Wood Frog
You Go, Caribou	Caribou
You Say Buffalo, I Say Bison	Bison

WildFiles.TV
"Sally and Stevie"
Song Lyrics

Sally and Stevie the salamanders
Were asleep in the soil 'til spring
The shine of the sun and the soak of the rain
Start the Sally and Stevie spring fling

CHORUS:

Stevie said "Sally it's sunny springtime
Can we smooch and snuggle today?"
"Sorry" said Sally to Stevie again,
And Sally sent Stevie away
And Sally sent Stevie away

Sally and Stevie struggled up through the soil
As the rain came and soaked their skin
They started to stride to the Springerton slough
To salute their salamander kin

CHORUS

Sally and Stevie splashed into the slough
And they swam through the sludge en amour
They finally got a chance to snuggle and smooch
Then Sally scooped Steve's spermatophore

So Sally and Stevie stayed close for a spell
'Til Sally said, "It's time that I lay"
'Our eggs will spawn daughters and so many sons'
And with that Sally, she went on her way

So now when you walk through the sunny springtime
And you get caught in the rain
You know salamanders are soaking it up
And their spring fling starts again, oh yeah
Their spring fling starts again.