

WildFiles.TV

Teachers' Guide for *Strong as a MuskoX*

TABLE OF CONTENTS

Series Synopsis.....	page 1
Learning Objectives.....	page 1
Episode Summary.....	page 3
Vocabulary.....	page 3
Discussion Questions.....	page 3
Activities.....	page 4
Hands on Science.....	page 4
Song Lyrics.....	page 6

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 – MuskoX 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.
- 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.
- Identify examples of environmental conditions that may threaten animal survival, and identify examples of extinct animals.
- Demonstrate knowledge of the needs of animal studies, and demonstrate skills for their care.

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.
- Distinguish between and identify examples of natural and artificial selection (beak shape in birds).

Grades 7-9: Outdoor and Environmental Education: Environmental Core

- Recognize natural changes in environments such as extinction, succession.
- Recognize that the materials that make up living things are recycled continuously.

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: *Strong as a Muskox*

FEATURED ANIMAL: Muskox

THEMES

- Adaptation
- Survival
- Defensive strategies
- Extinction and extirpation
- Coping with change

SUMMARY

Amy discovers what muskox and football have in common.

When Amy's dad is laid off from his job, the family has to survive on a lot less and Amy's having a hard time adapting to the changes forced upon her – including quitting her tennis club. Chris thinks she has the strength to get through this and takes Amy out for a walk to help cheer her up. He introduces Amy to his former professor, Dr. Jim Butler, who tells her about the muskox and its amazing survival skills. They were one of the few species to survive the extinction of the last ice age, and they're still braving Northern winters today. Chris and Dr. Butler explain **muskox physical features, habitat, adaptations to cold** temperatures, **diet, defense** against predators, **parental care** and the importance of their porous skulls. Inspired by the muskox, Amy begins to look at change in a new way and appreciate the opportunities it brings.

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)*

advantages	genes	predators*
adversity	incisor*	qiviut*
biomass*	latitude	resilient
competitors	migrate*	tundra*
defensive strategy	muzzle*	ungulate*
digestive system	photosynthesize*	vulnerable
dominant males	porous*	

Vocabulary: Interactive Content

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

Beringia	glaciation	qiviut
calves	herbivore	rut
cows	omingmak	sedges
extirpated	Pleistocene extinction	tundra
fittest	porous	Vicuña
gestation	predators	

SONG: “Muskox Waltz” – sing along with Chris! (lyrics on pg.5).

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

- What are examples of the muskox's special adaptations that allow it to survive in the tundra?
- What type of food does a muskox eat? How do they find their food?
- How does their diet change in winter? What helps plants to grow in the tundra?
- What protects male muskoxen from hurting themselves when they bash their heads together during the rut?
- Describe how muskox herds protect their young from predators.

- What does resilient mean? Tell about a time in your own life when you had to be resilient.
- How did Amy adapt when her dad lost his job? Give examples of how you adapted to new situations.

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 Muskox Word Search, Crossword Puzzle or Quiz to evaluate their learning.
- Draw a diagram or write a paragraph explaining how a muskox herd protects its members from predators.
- Create a poster comparing muskox adaptations to how another animal has adapted in order to survive.
- Draw a muskox in its tundra habitat. Make a list of the tundra's advantages and disadvantages for the muskox.
- The muskox is an ungulate. Look up the definition for this word and make a list of other ungulates. Explain how these animals are similar to/different from the muskox.
- Plan and produce a class webpage, advertisement or magazine about amazing animal adaptations and survival.

HANDS ON SCIENCE:

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

Muskox - Cushioning the Blow

Like many animals that bash their heads during the rut, a muskox skull is designed to withstand heavy blows. Here's an experiment that challenges you to engineer a container to prevent an egg from breaking.

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
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
"Muskox Waltz"
Song Lyrics

Hanging around on this huge frozen tundra
Nothing to see for miles
No video rentals, no 7/11s
Hope that this thing is worthwhile

I'm hoping to see a weird critter up here
Resembles a hippy-like cow
With hair down to there and a smell up to here
I'll not get too close anyhow

To guard against danger they stand in a line
Their horns always ready to fight
No one can see what the young ones are doing...
Behind that line.... in three-quarter time...

CHORUS

(I bet they're) doing the Musk Ox Waltz
Beneath the Northern Lights
Nothing to bump into, twirling around as you
Gracefully do some somersaults

(Ohh) Imagine the good times they have
With nothing to get or to need
Their long hair just blows in the breeze
And their noses don't freeze when the muskox waltz

He would say "The northern lights
Are bright in your eyes, my dear.
And I love what you've done with your hair tonight."

She would say that "My day today
Has been happy - I watched the kids play.
So if you've time...let's form a line and we'll..."

(Whistling Chorus)

But it's just me on this frozen prairie
And its only make-believe...still
Their long hair just blows in the breeze
And their noses don't freeze...do the muskox waltz??

Do the Muskox Waltz!