



EDUCATION GUIDE
to Accompany the Performance of
The Wicked Witch of the Wetlands
Brought to you by Evergreen Theatre

Discover
the Fine art of
Science!

Synopsis

As a certain Good Witch once said to a certain young girl on a quest, "There's no place like home." Wise words, to be sure. But it's easy to forget that these same words are true for the creatures and plant life that dwell in the threatened ecosystems that help to sustain our planet.

In this Oz-inspired marshland adventure tale from award-winning playwright Jana O'Connor, Dorothy is a plucky, quirky grade five student who is happiest when learning on the go, and most at home in the great outdoors. When she discovers that her beloved wetland stomping grounds are threatened, she follows her heart (as she follows the yellow slick toad) on an epic journey to find the Wizard of Bog, protect the peat, and save the sloughs!

*Suitable for Grades K-6

Main Themes

Science/Environmental Connections	Cross-Curricular Concepts
<ul style="list-style-type: none">• Needs of Plants & Animals• Small Flying & Crawling Animals• Animal Life Cycles• Plant Growth & Changes• Waste & Our World• Wetland Ecosystems• Trees & Forests• Interdependence• Sustainability• Water Nexus• Conservation	<ul style="list-style-type: none">• Iconic Literature• Mixed-up Tales• Musical Parody• Drama & Puppetry• Differing Perspectives• Government/Industry• Personal & Social Responsibility• Empathy• Neurodivergence• Learning Styles/Strategies

Vocabulary

The following terms are utilized over the course of the play. Basic definitions are provided below, however, further information, weblinks and discussion ideas can be found in the next section.

Biodiversity: The variety of life in the world or in a particular habitat or ecosystem

Boreal Toad: Has Large reddish-brown warts often set in dark blotches. May have a light stripe down middle of back. On the COSEWIC list as "Special Concern." 50% of the global population has been lost in the last 200 years.

Black Witch Moth: Dusty brown migratory insect with comma-shape eye spots on the forewings. The characteristically long forewings and nocturnal habits make it superficially resemble bats, which they can easily be mistaken for while in flight. It has different meanings for different cultures in its wide range.

Bog: A wetland of soft, spongy ground consisting mainly of partially decayed plant matter called peat.

Cattail: A tall, reed-like marsh plant with a dark brown, velvety cylindrical head of numerous tiny flowers.

Climate Change: A change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels

Ecosystem: A biological community of interacting organisms and their physical environment

Epaulets: The name for the red-and-yellow patches on the Red Winged Blackbird. Named after an ornamental shoulder piece on an item of clothing, especially on the coat or jacket of a military uniform.

Fen: A low and marshy or frequently flooded area of land

Flight Display: Male red winged blackbirds perform wing-spreads that highlight bright red shoulder patches to defend their territory

<https://academy.allaboutbirds.org/a-flash-of-brilliance-red-winged-blackbird-territorial-displays/>

Food Chain: A hierarchical series of organisms each dependent on the next as a source of food.

Habitat: The natural home or environment of an animal, plant, or other organism

Intruder: A person or animal who intrudes

Invasive Species: A species tending to spread prolifically and undesirably or harmfully.

Irrigate: Supply water to (land or crops) to help growth, typically by means of channels

Marsh: An area of low-lying land which is flooded in wet seasons or at high tide, and typically remains waterlogged at all times.

Monoculture: The cultivation of a single crop in a given area

Nocturnal: Done, occurring, or active at night.

Nutrients: A substance that provides nourishment essential for growth and the maintenance of life.

Omnivore: An animal or person that eats food of both plant and animal origin.

Overdevelopment: To develop excessively. The expansion of the urban sprawl and the deforestation of trees for commercial use, cattle ranches, and farmland results in immense negative effects on the environment

Pollutant: A substance that pollutes something, especially water or the atmosphere.

Pond: A small body of still water formed naturally or by hollowing or embanking.

Red-Winged Blackbird: Named for the males' brilliant red shoulders. It's one of the most common and easy-to-recognize birds in Alberta, often found in wetlands

Sedge Grass: This plant grows in wet to moist prairie, prairie swales, riparian zones, and sedge meadows. It is found in areas of shallow water or by its edge.

Slough: A side channel or inlet, or a natural channel that is only sporadically filled with water.

Species: A group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding

Sustainability: The ability to be maintained at a certain rate or level.

Swamp: An area of low-lying, uncultivated ground where water collects; a bog or marsh

Tadpole: The tailed aquatic larva of an amphibian (frog, toad, newt, or salamander), breathing through gills and lacking legs until the later stages of its development.

Water Nexus: The place where points intersect, linking many different parts of a system together. Water is the nexus between food, energy, and people.

Water Quality: Water quality is dependent on the characteristics of the surrounding landscape and climate, in-stream processes, and natural and human inputs, and is a key component of aquatic habitat.

Whirligig Beetle: A small, shiny black beetle usually seen zooming around on the surface of the water.

Alberta's Wetlands

Wetlands are low-lying areas of land covered by water long enough to support aquatic plants and wildlife for part of their life cycle. Wetlands are highly diverse, productive ecosystems that provide a host of ecological services and form an integral component of Alberta's diverse landscapes.

They play an important role in sustaining healthy watersheds by protecting water quality, providing water storage and filtration, providing habitat for wildlife, fish and plants, and sustaining biodiversity. Wetlands in Alberta are estimated to host some 400 species of plants, some of which are listed as rare, threatened or endangered in the province.

Approximately 21% of Alberta's surface area is covered by wetlands with more than 90% of these classified as peatlands. These are wetlands that accumulate peat (partially decomposed organic vegetation – bogs, fens, swamps) versus non-peatlands (shallow open water ponds) that do not accumulate peat.

*Over time wetlands in Alberta have been significantly altered or destroyed by urban sprawl, expanding agriculture and other human development.**

*Source: <https://wetlandsalberta.ca/index.html>

Discussion/Research Questions:

In the play, Dorothy is looking for the “Wizard of Bog” to help her save her favourite place, the wetlands.

- What are wetlands? Why are they important?
- What are the different type of wetlands mentioned in the play?
- Have you been to a wetland in Alberta? Where?
- What types of wetland plants and animals do you recall from the show? (Boreal Toad, Cattails, Sedge Grass, Red-Winged Blackbird)
- Why/how are wetlands disappearing?
- What can you do the help? <https://wetlandsalberta.ca/stewardship/index.html>

The Water Nexus

A nexus is the place where points intersect, linking many different parts of a system together. Water is the nexus between food, energy, and people. Water is required to meet the demands of our growing population, to maintain and improve environmental health, and to support the production of food and energy. As the availability of water changes and our population grows, meeting the demands in the Nexus will become increasingly challenging.

Food, energy and people demand water and other resources, and meeting the requirements is challenging due to population growth, economic development, and climate change.

*Each sector uses water in different ways and has different priorities. Decision makers in each sector may not recognize their impacts on other water users. Individual and collective decisions made by people and communities have a large impact on the water-food-energy nexus.**

*Source: <https://albertawater.com/nexus/>

Check out this helpful video about the Water Nexus from the Alberta Water Portal Society:

<https://www.youtube.com/watch?v=ZQ5RFqZ6Uwo>

Discussion/Research Questions:

When Dorothy meets the farmer, he introduces her to the concept of the *Water Nexus*. He also discusses strategies he is implementing to maintain/restore wetlands on his farm/ranch and ways he is supporting wildlife that live in the surrounding areas. Later she meets a city worker, surveying the land and adding info about the wetland plants/animals to a database to work with developers to ensure responsible development in/around the wetlands.

- What is a nexus?
- What are the parts of the water nexus?
- How do you think each part could impact the others?
- What is your role in the water nexus?
- Why did the farmer put up special fencing around the wetland areas on his ranch? (Keeps the cows out of wetland but still allows wildlife to get over/under/through – see links below)
- When Dorothy meets the city worker, they are adding info about the wetland area to a database. Why type of information do you think they might be collecting and why?
- The worker said they work with “Emerald City Construction” and other partners. Why would it be important for the city to work with/monitor industry and developers?

Did You Know?

Irrigation for agriculture is the largest user of water in Alberta, accounting for 60 to 65% of all water consumed on average.

Find out more about the challenges and opportunities managing water & agriculture in wetland/riparian zones:

<https://albertawater.com/what-is-water-used-for-in-alberta/agriculture-in-alberta>

<https://cowsandfish.org/grazing-management/>

<https://vrwa.ca/2020/08/do-fence-me-in-fencing-with-water-and-wildlife-in-mind/>

https://www.ab-conservation.com/downloads/educational_materials/brochures/ACA_Wildlife_Friendly_Fencing.pdf

The Art of Parody

Reimagined Classics

“The Wicked Witch of the Wetlands” is wetland-inspired, loose re-imagining of the classic children’s novel Wonderful Wizard of Oz by L. Frank Baum.

Recall/read/watch the Wizard of Oz and discuss the ways in which Evergreen Theatre’s production incorporated/adapted characters and plotlines with a wetland twist:

- Dorothy’s companion is Toad-o (vs. Toto the dog)
- Toad-o turns “technicolour” after Dorothy bumps her head (a nod to the movie)
- The Cattails are called the “Marshkins” (vs Munchkins)
- On a journey to find the “Wizard of Bog” (vs Oz)
- “Follow the Yellow Slick Toad” (vs. brick road)
- Dorothy *clicks her heels* when she’s concentrating on something
- Dorothy accuses the worker of **cowardly lyin’** when they say there are not a construction worker
- The farmer’s lunch is a *Tin Can* (that Dorothy thinks is talking to her at first (Tin Man))

- *Emerald City* construction is the company name
- There is a *tornado-like* sequence when Dorothy bumps her head
- Dorothy is gifted sparkling *red rubber boots* (ruby red shoes)
- There is a supposed “Wicked Witch” which turns out to be a [Black Witch Moth](#)
- Dorothy loves the wetlands but says, “There’s no place Like home”, at the end

Discussion:

Are there other instances in which students can recall having encountered a re-telling of a classic tale? (ie. Fractured Fairy tales, movie adaptations etc) Students could read/present some examples or create their own.

Resources:

<https://www.readbrightly.com/11-fractured-fairy-tales-young-readers/>

<https://www.readwritethink.org/classroom-resources/student-interactives/fractured-fairy-tales>

<http://www.kids-bookreview.com/2015/04/book-list-classics-redone.html>

Parody Songs

Parody music, or musical parody, involves changing or copying existing (usually well known) [musical ideas](#), and/or [lyrics](#), or copying the particular style of a composer or performer, or even a [general style](#) of music.

Evergreen Theatre shows incorporate popular songs that kids/teachers will recognize and enjoy featuring revised lyrics to reinforce scientific concepts. We simply use Karaoke tracks for the background music.

Discussion:

What parodied songs do students recall from the “The Wicked Witch of the Wetlands” production? What other parody songs have students heard before? (Weird Al etc)

- "Oldtown Road" – Lil Nas X ("Follow the Yellow Slick Toad")
- "ME!" - Taylor Swift ("Friend Like Me")
- "Truth Hurts" - Lizzo ("Truth Bomb")
- "Can't Feel My Face" – The Weeknd ("We Can Save This Place")
- "Ten Thousand Hours" - Beiber, Dan + Shay ("Ten Thousand Gallons")
- "Sucker " – Jonas Brothers ("The Water Nexus")

If you'd like copies of lyrics or access to videos of songs from the performance, get in touch at programs@evergreentheatre.com

Have students try their hand at creating their own parody incorporating curricular concepts!

Resources:

<https://blog.tcea.org/parodies-for-teachers/>

<https://www.youtube.com/playlist?list=PLyI3P7xTuJi2aRkoqWwru51oZRUsWk7RN>

(Preview first before sharing)

Neurodiversity

Dorothy mentions her troubles focusing, listening, and sitting still (classmates say she zooms around like a Whirligig beetle), her habit of fidgeting and clicking her heels, and her need for a quiet break in the wetlands. Toad-o helps Dorothy to recognize that she's the perfect person to help save and share her love of wetlands despite her initial insecurities about being "different".

This is a great entry point to discuss and celebrate neurodiversity with your students.

Neurodiversity describes the idea that people experience and interact with the world around them in many different ways; there is no one "right" way of thinking, learning, and behaving, and differences are not viewed as deficits. ([Harvard Health Publishing](#))

Videos for Kids:

Neurodiversity: <https://www.youtube.com/watch?v=HOoASAnYvKc>

ADHD: <https://www.youtube.com/watch?v=YeamHE6Kank>

Other Resources:

<https://childmind.org/article/what-is-neurodiversity/>

<https://www.scholastic.com/parents/books-and-reading/raise-a-reader-blog/what-is-neurodiversity-children.html>

<https://www.neurodiversityhub.org/teachers>

Other **Evergreen Theatre** Programming Offerings:

Artist-In-Residency Programs

Full school, full week or mini-residency/smaller group options

<https://www.evergreentheatre.com/residency-programs>

Arts/Education Field Trips to Evergreen Community SPACES

On site residency/performance or custom program options

<https://www.ecspaces.com/>

Travelling Puppet Theatre – Coming Soon!

<https://www.evergreentheatre.com/copy-of-home>

Email Christina at programs@evergreentheatre.com for more info

"Wicked Witch of the Wetlands" Vocabulary Review

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

- Biodiversity
- Black Witch Moth
- Bog
- Boreal Toad
- Carbon Dioxide
- Cattails
- Climate Change
- Ecosystem
- Epaulets
- Fen
- Food Chain
- Habitat
- Invasive Species
- Irrigate
- Marsh
- Monoculture
- Nocturnal
- Nutrients
- Ominvore
- Overdevelopment
- Pollutants
- Pond
- Red Wing Blackbird
- Sedge Grass
- Slough
- Sustainability
- Swamp
- Tadpole
- Territory
- Water Nexus
- Whirligig Beetle