

ISSUES 21

OVERVIEW GUIDE

 **SCHOLASTIC**
Education

Table of CONTENTS

Welcome to Issues 21	2
Motivate Students with Issues 21	3
How to Use Issues 21	4
Features of the Issues 21 books	5
Features of the Issues 21 Teacher's Guides	
Front Matter	8
Lesson Plans	9
Inquiry Question and Enduring Understandings	11
Anchor Video and Support Website	11
Personal Reflection Question	11
Questions to Consider	12
Optimal Questions	12
Assessment	13
Interdisciplinary Connections	15
Bios of Series Editor, Aboriginal, and Strand Reviewers	16

Welcome to

ISSUES 21

I cannot tell you how excited I am about the release of this series. This is the product of many years teaching and learning with my students, and the result of long passion.

I have always wanted my teaching to matter—and to matter INTENSELY—to my students in the here and now, to my students in the future, to others, and to the world in which we live. I’ve always attempted to teach for deep understanding, application, and service. I call this kind of teaching “problem-based inquiry”. I’ve found in both my teaching and my research that this kind of teaching is highly engaging to students, particularly those who struggle or who are reluctant. Why? Because such teaching is purposeful and immediately contextualized in their lived-through experiences and the problems they see in their own lives.

One of my own books, *OVERFISHING*, came about after many years of teaching a unit framed with the Essential Question: Who will survive? Though we studied many kinds of flora and fauna in such units, on many occasions we have focused on fisheries. My students have pursued such inquiries with deep enthusiasm and something that I’d have to call love and joy. And the results were not only deep conceptual understandings, but also improved motivation for future reading and writing, and a new facility with sophisticated strategies of reading and composing.

In every inquiry unit I’ve ever taught, many of them represented in the **Issues 21** texts, my students inevitably get to the point where one of them cries out: “This makes me so ANGRY!” and “What are we going to do about this?” and “We REALLY need to do something!” This is the kind of energy and motivation teachers are always seeking. It is the continuing impulse to learn and to apply what has been learned. It is the “flow” and energy that makes deep learning possible.

Inquiry into compelling issues connects students personally to the material of the curriculum, and connects both of these to the world and wider environment where what has been learned can be applied and made of service to the self, peers, local community, and wider world. The topics explored in this series are ones that have worked with my own students over the past 30-plus years. They can easily piggyback onto existing curriculum, build deep literacy, and prepare students for future reading and composing, future challenges, for democracy, service, and civic engagement. These are the purposes for which I became a teacher. I am very pleased to have worked on a resource that has helped actualize these possibilities for myself and my own students. All the best to you with your very important work—the most important work I can imagine doing.



Jeffrey Wilhelm

Motivate Students with ISSUES 21

The goal of **Issues 21** is to create **critically-aware and actively-engaged citizens**, who are change-makers ready to contribute to an increasingly globalized world.

Issues 21 fosters a **'duty of care'** and service mindset by exploring local and global issues that impact students directly and indirectly.

Issues 21 encourages inquiries into **global issues with personal and local connections** through materials that are grade-appropriate and accessible for a diverse student population.

Issues 21 recognizes the complexities of 21st century literacy, and **promotes strategies for deeper reading** comprehension.

Issues 21 motivates students to think deeply, not telling them what to think. Both students and teachers are urged to consider how culture, history, politics, economics, and the environment make an issue highly complex and can lead to multiple conclusions/entry points. It is from deep understanding of this complexity that action is taken to restore justice.

Issues 21 invites inquiry learning through the deconstruction and reconstruction of an issue where students' and teachers' **understanding of the issue is constantly evolving based on multiple perspectives and points** of view. As part of the inquiry, students generate their own questions for further investigation, and reflect on and connect the underlying themes to current local and global issues.

Issues 21 provides opportunities to **increase student engagement, voice, and success** within the classroom. Like our ever-changing world, the books present a variety of different experiences, views, and beliefs. The intention is for teachers to approach the topics with the same level of curiosity, critical analysis, and empathy that we are looking to engender in our students.

And importantly, **Issues 21 encourages students to take action** on a personal, local, and global level.

Kids—Monkey Business Images, teen with basketball—Lisa F. Young | Shutterstock.com



How **ISSUES 21** SUPPORTS INQUIRY

Issues 21 books can be used with a variety of inquiry models, from closed, teacher-directed inquiry to open inquiry. Choose the model that best meets your comfort level with the inquiry process as well as students' exposure to the inquiry process. Conference with students throughout the process to facilitate learning and support next steps during student inquiry.

Steps in Inquiry Process

Inquiry in Issues 21

Focus on the Topic	<ul style="list-style-type: none"> • Introduce the topic with the anchor video • Activate students' background knowledge with questions • Introduce and discuss the inquiry question
Explore the Topic	<ul style="list-style-type: none"> • Select and read articles in the Issues 21 book • Discuss the articles using the Optimal Questions and Interdisciplinary Connections provided as a guide • Discuss the Issues section and Game Changers section • Explore the additional resources suggested on the website • Research other questions and issues raised by the selections and the Dive Deeper features
Draw Conclusions	<ul style="list-style-type: none"> • Compare, classify, evaluate, synthesize, and interpret learning from different articles • Use information to answer the inquiry question and draw conclusions • Think about new questions arising from their learning • Reflect on and discuss new understandings
Communicate and Take Action	<ul style="list-style-type: none"> • Use the Take Action section to generate ideas on ways to plan and act on what they learned • Communicate new learning to others • Ask new deeper questions for further inquiry • Apply understanding to new topics and situations • Reflect on how their learning occurred

How to Use

ISSUES 21

How long will the units take?

Based on student engagement, each reading selection may take more than one day. Students should be encouraged to generate their own questions of interest and extend their learning beyond the text. Each **Issues 21** topic may therefore take anywhere from a couple of weeks to a couple of months to complete.

How do I support students?

- Students can read and discuss the selections as a whole class, in small groups, partners, or individually. To support the gradual release of responsibility to students, use your professional judgment to determine how to scaffold support for learning (modeled, shared, guided, and independent). This would also include selecting appropriate questions and strategies to use before, during, and after reading.
- Teachers are also encouraged to create opportunities for differentiated instruction, and provide accommodations and modifications when deconstructing the **Issues 21** text as well as the inquiry question. For example, students can:
 - Respond to different Optimal Questions
 - Choose different interdisciplinary tasks
 - Choose different response methods
 - Select different environments of learning
 - Choose their culminating task

How do I ensure I am developing students' ability to think deeply and critically?

To help students construct meaning, use the Optimal Questions for each selection. These questions may also be used as a starting point for rich, deep discussions. Tailor the questions to the students' needs and interests (e.g. cultural and socioeconomic backgrounds, learning styles, geographic location, prior experiences, etc.).

How do I connect the books to the real world?

As students learn about the concepts and big ideas of the topic, encourage them to make connections to their interests and to local and global issues in the media and their communities. The more engaged students are in connecting the material to their prior experiences and what is happening around them, the more enriching the learning experience will be.

You can connect the topics to other text forms including picture books, novels, documentaries, Internet websites, newspaper articles, movies and TV shows, field trips, artifacts, and celebrating days of significance, etc., in order to make connections between non-fiction and fictional texts, and between texts and the real world. Both non-fiction and fictional texts need to centre around the enduring understanding or inquiry question of the unit.

Features of the ISSUES 21 books

Each **Issues 21** book is built on an inquiry frame to support students with their exploration of the topic. The books are designed with features to support students as they go deeper into a topic.

Mind Map pulls together the major points of the book to initiate thinking about the topic or provide a reference throughout the inquiry.



Each Book follows the same three Steps:
The Issues
Game Changers
Take Action

CONTENTS

INTRODUCTION:
The Many Facets of Poverty 6

STEP 1 THE ISSUE

- A Brief History of Poverty in Canada 8
- Poverty by the Numbers 10
- What is Poverty? 12
- Poverty Around the World 14
- Poverty in Canada 16
- Safe, Running Water Should be a Right 18
- The Working Poor 20

STEP 2 GAME CHANGERS

- Feeding Our Strugglers 24
- Feeding Our Minds 26
- Empowering the Women of Africa 28
- Millennium Development Goals 30
- A Letter to Grassroots Bank Members 32
- Rocking for a Cause 34
- The City of Calgary Tackles Poverty 36
- Domestic: A Case Study 38

STEP 3 TAKE ACTION

- Personal Action 38
- Local Action 39

Quick Facts engage students with the topic and start them thinking about the different issues involved.

More people have cellphones than access to toilets.

Facebook has more than one billion users. If it were a country, it would be the **THIRD** most populated one in the world.
(It would be over 25 times more populated than Canada.)

A study in [unclear] found almost 90% of students had been cyberbullied.

73% of Canadian victims reported they were mainly cyberbullied through emails or instant messages.

Inquiry Question is a provocative, open-ended question that frames the investigation into the topic.

Introduction gives students some background knowledge of the topic, and why it is so important to them and the broader community.

DIGITAL SHOWDOWN

HOW HAS DIGITAL TECHNOLOGY HELPED AND HURT SOCIETY?

In recent years, we have transitioned into a digital world. Some 19 billion messages are sent daily over smartphone chat apps. Never before have we been so connected to so many people. About 2.4 billion of the world's seven billion people use the Internet regularly. An MTV study found that many young people think of their smartphone as a "friend."

What challenges can be expected?
While we may feel at home in this virtual neighbourhood, like any neighbourhood, it has its challenges. These are challenges that, while often mirrored by the "real" world, pose new problems and require new solutions. Just about anything that can happen in the real world can happen in the digital world: bullying, privacy, privacy concerns, and addiction are just a few examples.

What advantages are there?
The digital world can also help spread positive actions, such as fundraising and advocacy. Being connected to so many people means information can be spread widely and quickly, helping build support when it is needed.

advocacy: supporting a cause, idea, group, or policy

As you read this book, think about:

- the good that technology can do
- the dangers that technology can pose
- what we can do to be better digital citizens

hands, holding bowl—Suzanne Tucker, poverty in India—Kariatala Shutterstock.com; girl in Cambodia—Klaus-Werner Friedrich (imagebroker.net)/SuperStock

WHAT IS POVERTY?

START UP How is your community affected by poverty?

Question: How are the two types of poverty measured?
Answer: To measure absolute poverty, experts look at the cost of basic needs, such as food and shelter. They look at how much a person needs to earn to afford those things. The World Bank, an international organization that gives financial help to developing countries, uses the lowest cost to get those things as \$1.25 a day. Earning less than that means a person is living in absolute poverty.

Relative poverty looks at the standard of living in society. For example, in Canada, people who cannot afford the same things as other people in the society to which they live may be living in relative poverty.

POVERTY IS DIFFERENT AROUND THE WORLD AND IT AFFECTS PEOPLE IN DIFFERENT WAYS.

Q: What are the causes of poverty?
A: Around the world, there are many causes of poverty, including the loss of homes and livelihoods from natural disasters, overpopulation, government policies, social policies, lack of education, agricultural cycles, and poor health. In Canada, unemployment is a major cause of poverty. People who cannot find jobs are unable to pay for their needs.

Q: How many people around the world are living in poverty?
A: According to the World Bank, in 2010, there were 1.22 billion people around the world living in absolute poverty on less than \$1.25 a day.

Q: \$1.25 a day? Where do these people live?
A: In 2010, about 75 percent of those living in absolute poverty lived in South Asia (507 million) and sub-Saharan Africa (414 million). Another 251 million people lived in East Asia. Absolute poverty also exists in Latin America, the Caribbean, the Middle East, North Africa, Eastern Europe, and Central Asia. However, fewer than 50 million people in these places lived in absolute poverty in 2010.

Q: What about Canada?
A: In Canada, one way poverty is measured is by low income cut-offs (LICOs), an approach developed by Statistics Canada. According to Statistics Canada, a LICO is "an income threshold below which a family will likely receive a larger share of its income to the necessities of food, shelter, and clothing than the average family." LICOs vary based on factors such as family size and location. In 2011, about nine percent of Canadians were living with a low family income.

Q: Why do you think the LICO levels would be different for a person living in a rural versus an urban community?

Q: A girl in Cambodia collects empty water bottles to recycle for recycling.

LICO levels for people living in a rural area, 2009	LICO levels for people living in an urban area, 2009
One person: \$12,050	\$18,220
Two people: \$14,666	\$22,420
Three people: \$18,263	\$27,918
Four people: \$22,783	\$34,829

DIVE DEEPER Why do you think the LICO levels would be different for a person living in a rural versus an urban community?

Step 1: Issues presents some of the significant issues surrounding the topic to build students' understanding of the complexity and urgency of the issue.

Dive Deeper offers questions to extend the issue in new directions.

Step 2: Game changers showcases the people, events, and ideas that have changed the issue in some way—for good or bad.

White Box Questions help students challenge an idea or opinion in the text.

Hmmm shares interesting facts to further engage students.

BIODIVERSITY HOTSPOTS

START UP Why is it important to protect plants and animals that are in danger of becoming extinct?

Biodiversity hotspots are ecosystems that are considered to be in danger because of the actions of humans. They have diverse plant and animal species but are threatened by human activities. There are two criteria for a region to be considered a biodiversity hotspot. It must have more than 1,500 endemic plant species, and it must have lost at least 70 percent of its original forest.

There are 34 biodiversity hotspots around the world. Biodiversity hotspots make up about 2 percent of Earth's land, but more than half of all plant species and 42 percent of all terrestrial animal species that are found in these places are endemic. That is why conservationists are very concerned about keeping these biodiversity hotspots safe.

The entire nation of New Zealand is a biodiversity hotspot. It has 1,965 endemic plants, and all of its mammals, amphibians, and reptiles are endemic. About 50 land species have become extinct since humans settled in New Zealand 700 years ago, and a further 43 endemic land species are threatened.

The ecologist E.O. Wilson calculated that we could lose all the world's hotspots and take care of 570 billion. This may seem like a large amount of money, but it is only a small proportion of the value of the goods and services produced in hotspots each year. Many people believe that way to protect species and ecosystems with the least money available. Others, however, are concerned about places that are not considered biodiversity hotspots. They believe that money is better spent only to protect biodiversity hotspots, but conserving plants and animals that don't fall into the hotspot category.

endemic: found only in a specific area; worldwide: having a global presence.

10 COOL CANADIAN BIODIVERSITY HOTSPOTS

PEEL RIVER WATERSHED
 Many species survived here during the last ice age. It is a large, relatively undisturbed area that has many unique and rare plant and animal species.

SOUTH NAHANN WATERSHED
 This area has about 600 plant, 40 mammal, and 120 bird species. It has healthy populations of caribou and grizzly bears.

THASHEEN MERE
 This area has a diverse landscape and therefore provides a habitat for many species. It supports muskies as well as three threatened caribou herds.

TURBID RIVER NATIONAL PARK
 This area is a habitat for two caribou herds and nesting grounds for peregrine falcons and golden eagles. It is home to rare landlocked populations of salmon and steelhead.

CARIBOU HOUSE
 This is the calving ground for the once-largest caribou herd. The caribou are protected by the open habitat where caribou can see predators. The watersheds are also spawning grounds for Atlantic salmon, calling young fish to a reef.

SACRED HEADWATERS
 This diverse landscape provides many types of habitats for plants and animals. It is home to many large mammals. Important Pacific salmon spawning rivers are located here.

SARAKCHWAN WATERSHED
 This wetland provides a habitat for about 200 bird, 48 fish, 43 mammal, and 27 plant species. It is a globally important site for nesting waterfowl.

PHINCHOWAN BASIN
 This area is an important habitat for the woodland caribou and other large mammals. Many species of songbirds with declining populations nest here.

HUGHSON & JAMES BASIN WATERSHED
 This is one of the largest wetland regions in the world. It hosts many migratory birds, such as ibis.

BIGBROOK RIVER WATERSHED
 This area of large old-growth forest is an important habitat for woodpeckers.

REPORT

cracked mud—sombdajip, world map—cobalt188 Shutterstock.com; eroded beach—Biosphoto/SupeStock

HEALTHY HABITS CHALLENGE

PERSONAL ACTION

LOCAL ACTION: INTERVIEW A FOOD CHAMPION

FIND A LOCAL FOOD CHAMPION FROM YOUR COMMUNITY AND SET UP AN INTERVIEW WITH HIM OR HER. This person could be a farmer, vegetable gardener, vegetarian, bioactive, activist, politician, nutritional, or anyone who is working to make a positive change. As a class, compile all of the interviews into a "Guide to Local Food Champions" to share with your school or community.

How to conduct a good interview:

- 1. Be prepared.** Make sure you have everything you need to conduct the interview (pen and paper, voice recorder, camera, notes, questions, and so on). Change any battery-operated devices the night before.
- 2. Do your research.** Before the interview, learn as much as you can about your subject and the topic that you will be discussing.
- 3. Plan your interview.** Think ahead and try to plot out the possible path of your interview. Have a list of questions, but don't worry if you go off course. Try to keep the conversation natural.

champion: person who works for a cause

GLOBAL ACTION: SPREAD THE WORD

MANY ORGANIZATIONS ARE WORKING HARD TO SOLVE THE WORLD'S FOOD ISSUES. Choose one organization and create a public service announcement (PSA) video or website that will inspire others to help that organization with its cause. You can choose an organization from the list to the right or find another one. Present your PSA to your classmates and share it online.

Points to think about when creating a public service announcement:

- What do you want your PSA to accomplish?
- Who is your audience? What is the best way to grab their attention and inspire them to act?
- Before you begin, you might want to get some ideas by checking out some other PSAs.
- Visit the organization's website to gather information on what the organization does.

ALSO REMEMBER TO:

- Be polite and respectful.
- Be confident.
- Take notes (even if you're recording the interview).
- Listen carefully.
- Be prepared to answer questions.

ORGANIZATIONS YOU MIGHT SUPPORT:

- **The World Food Programme** is a United Nations organization dedicated to fighting hunger worldwide.
- **Food Revolution Day** is a day of action that was started by Chef James Oliver. It aims to raise awareness of the importance of good food and food education.
- **The Global Initiative on Food Losses and Waste Reduction** is a program from the Food and Agriculture Organization of the United Nations. It is aimed at reducing the 1.3 billion tonnes of food that go to waste each year.

AT THE VERY BEGINNING OF THIS BOOK, WE ASKED YOU TO THINK ABOUT YOUR EATING HABITS. Perhaps they've changed for the better since then, but if they haven't, don't worry. Here's your chance to see how a few small changes can make a big difference in your life.

Making healthy decisions can be difficult at first, but as with many skills, the more you do it, the easier it gets. For this challenge, you will choose one or two healthy habits from this book and try to stick with them each day as you track your progress. Follow these steps to get started.

- 1. BEFORE THE CHALLENGE**
 - Choose the amount of time you would like to do your challenge for (three days, one week, or longer).
 - Choose one or two healthy habits mentioned (e.g., drinking water instead of pop, chewing each bite of food 20 times, eating more vegetables) and make a commitment to practise them each day. Remember: There are just examples. There are many other healthy eating habits to be found in this book and others that you may think of on your own.
 - Write out your goals and the steps you will take to achieve them.
- 2. DURING THE CHALLENGE**
 - As you try to incorporate these habits into your life, keep track of your progress. Write down your difficulties, accomplishments, or any questions you might have. Try to write something at least once a day.
- 3. AFTER THE CHALLENGE**
 - How did you do? Jot down some notes assessing the results of your challenge. In your notes, include answers to the following: Did you achieve the goals you set? How successful were you in making the healthy habits a part of your everyday life? Did you notice any changes in your mood or well-being? Was there anything you could have done differently? Will you stick with your healthy habits? Why or why not?
 - Write a letter to someone who might be interested in making some healthy changes. In your letter, summarize the results of your challenge, and offer advice or tips for adopting healthy habits.

PERSONAL ACTION

Boy with food—Michael Jay/iStockphoto.com; dinner plate on wood—Vitally Korovin, green background—CHAIWATPHOTOS Shutterstock.com

Step 3: Take Action supports students with suggestions for personal, local, and global action.

Features of the ISSUES 21 TEACHERS' GUIDES

The front matter of each Issues 21 Teacher's Guide includes:

Enduring Understanding: The big ideas of the topic that remain after the details have been forgotten.

Issues 21

Biodiversity in Crisis

The goal of the Teachers' Guide is to recognize and extract the richness of each text and to build understanding of the topic in order to answer the inquiry question and promote further interest and inquiry. Each text can be used multiple times in order to deconstruct meaning and reconstruct new meanings within and/or between various contexts.

Teachers are encouraged to make non-fiction to fiction connections and apply each concept to real-world events using narratives, media texts, and current events (storybooks, documentaries, websites, newspaper articles, field trips, celebrating days of significance, etc.) that speak to the themes of biodiversity.

Enduring Understanding:

It is our collective responsibility to understand the issues around biodiversity and why it continues to be at risk so that we can take personal, local and global action to conserve it.

Inquiry Question: an inquiry question that locates the reader within the context of the real-world issue.

Inquiry QUESTION

How do our actions affect biodiversity?

The inquiry question is an overarching question that frames the unit. As students read the various selections, their opinions about the question may develop and change. Pose this question to students before they start the unit to get their initial reactions. Then revisit the question throughout the unit to discuss changes in their opinions. Also encourage them to ask their own questions about the topic.

Website SUPPORT

The Issues 21 website gives access to anchor videos, additional resources, and a full list of sources for Issues 21 books. The website is meant to support and extend learning on issues surrounding biodiversity. It can be used at the beginning of the unit to introduce the topic, or at various points in the unit to help answer inquiry questions and to collect more information. Go to: <http://www.issues21.org>

Anchor Video The Biodiversity in Crisis video provides students with a short overview of the topic and ends with the inquiry question about biodiversity and the issues surrounding it in crisis.

Additional Resources

Includes suggestions for picture books, documentaries, websites, articles, field trips, etc.



Anchor Video & Website: An anchor video to introduce each topic to students and builds background knowledge. The website for each topic includes suggestions for additional resources.

Interdisciplinary CONNECTIONS

As students are learning about themes and big ideas, they should be encouraged to make connections to local and global issues in the media and in their communities. The more students are engaged in this material by connecting it to their prior experiences and what is happening around them, the more it will enrich the learning experience and extend the amount of class time allocated to this unit. Each Issues 21 book may therefore take anywhere from a few weeks to a few months.

Symbols



Financial literacy



Science



Media literacy



Mathematics



Music



Drama



Art



Global Connections



Geography



History

Questions to Consider: A list of questions for teachers to reflect upon prior to planning/beginning the unit, includes

- **Questions you would ask yourself**
- **Questions you would ask yourself about your students**
- **Questions about social/political contexts**
- **Questions about cultural perspectives**

Questions TO CONSIDER

The questions provided are intended to be used over several periods and scaffolded appropriately with students.

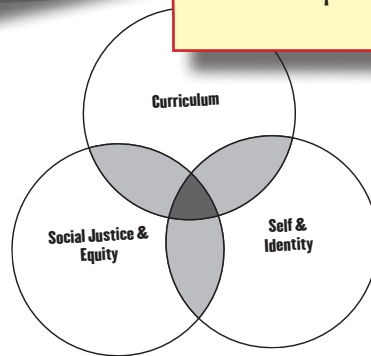
<p>1) Start with yourself. These guiding questions for teachers aim to promote personal reflection prior to sharing this material with students (e.g., reflections on teacher's background knowledge, gaps in the subject matter, experiences and biases about this topic, awareness of your students' background knowledge).</p>	<p>Questions you would ask yourself – What is your prior knowledge of the issues that threaten biodiversity and the impacts that humans have on its loss? What does biodiversity mean to you personally? What prior experiences do you have with different species and ecosystems? How might your experiences differ from those of your students? Whose responsibility is it to conserve biodiversity? Does learning about biodiversity actually lead to its conservation?</p>
<p>2) Next, determine students' background knowledge on the topic, the social/economic/political implications of this issue, and the various cultural perspectives that are represented.</p>	<p>Questions you would ask yourself about your students – What prior knowledge and direct experiences do your students have about different species and ecosystems? Do some students have limited experiences with the natural world? How might this knowledge and experience shape their views and understanding of biodiversity? Do they see a connection between biodiversity loss and humans' impact on Earth?</p>
<p>3) Finally, transformative social justice occurs when we understand the social, political, and economic factors that impact a topic/issue and act with that depth of understanding. These may be questions you ask yourself or ones that require some research.</p>	<p>Questions about Social/Political/Economic Contexts – What are the social, political, and economic causes of biodiversity loss? Who/what has the power to determine whether biodiversity is conserved or threatened? Who benefits from the loss of biodiversity and who loses out? Whose responsibility is it to conserve the Earth's biodiversity? Do some people/communities/nations have more responsibility than others to conserve biodiversity? What are the short-term and long-term social, political and economic impacts of biodiversity loss?</p> <p>Questions about Cultural Perspectives – Nationality, gender, age, socioeconomic status, place of origin, race, ethnicity, ability, spiritual beliefs, and sexual preference are some aspects that may impact our values/beliefs and may therefore impact our relationship with the natural world and biodiversity. How might people with different beliefs and life experiences understand the connection to human life differently? How might these different perspectives on the natural world impact our ability to conserve biodiversity?</p>

Optimal Questions: Optimal questions support the deconstruction of text and reconstruction of meaning, based on individual/collective identities and issues of power/privilege in society.

Optimal QUESTIONS

Each selection includes two or three optimal questions to help you blend higher-order thinking with identity and issues of social justice and equity. A conscious effort has been made to consider how the Issues 21 topic impacts First Nations people's histories, cultures, spiritual values, and ways of life.

The Issues 21 Overview Guide is available for free at <http://iread.ca/s/dtindex>. The guide has more information about features of the series, such as optimal questions, assessment, and features of the text.



BIODIVERSITY IN CRISIS

ISSUES 21

LESSON PLANS

Each selection in an Issues 21 book is supported by:

Summary: a brief description summarizing the selection.

Personal Reflection Questions: questions to have students reflect on their own background knowledge of these topics.

Vocabulary: key words that may be new to the students. These are often highlighted within the selection with a definition. Pre-teaching these terms prior to each selection could be expanded to word-study activities and a word wall.

Optimal Questions: questions that explore *self and identity* and/or *issues of social justice and equity* within curriculum to promote higher-order thinking.

Assessment Look-Fors: assessment suggestions that cover curriculum expectations by deconstructing the optimal questions and allowing teachers to use them for assessment for, as, and of learning.

Report – Levels of Biodiversity pgs. 10–11

Summary:
This report discusses the three levels of biodiversity and why a balance between these levels is crucial for a healthy Earth.

Personal Reflections
Brainstorm a list of living organisms that may be in your schoolyard. What categories can we use to sort these organisms?

Vocabulary:
adapt, traits, pollinate, ecosystem, diversity, genetic, interrelated

Optimal QUESTIONS

- Which level of diversity (ecosystem/species/genetic) do you believe is most essential for survival of an animal or plant species? Which one do humans impact the most? How would your answer change if you lived in a different part of Canada? Consider various urban and rural settings, First Nations communities, Maritimes, and Prairies, etc. Explain your thinking.
- On page 11, it states that “ecosystem diversity is important for maintaining a healthy Earth”. Canada is considered to be one of the most culturally diverse nations in the world. What are the similarities and differences between cultural diversity and ecosystem diversity? Is cultural diversity important for maintaining a healthy society in Canada/the world? Some believe that cultural diversity is endangered in Canada. Do you believe being in a multicultural nation helps or hurts cultural diversity? Explain.
- On page 11, we learn that genetic diversity is critical to the survival of a species and their ability to adapt to changing environments. Brainstorm some of the adaptations that animals have developed over time to survive in their environments. How might the same animal located in different parts of the world develop adaptations unique to their environment? How have humans around the world adapted to their environments (consider physical adaptations, homes, language, clothing, cultural practices, etc.)? Consider multiple perspectives on this issue.

Assessment LOOK-FORS

- The students are able to state their position on the topic. They infer why humans impact the most. The students use information from the text and their own ideas to support their response.
- Students can identify similarities and differences between cultural diversity and ecosystem diversity. Students are able to infer possible reasons for the statement. Students are able to state their opinion on the topic and support their responses with evidence.
- Students can explain about animal adaptations. Students can explain how animals have adapted to their environments using the text, research, and their own ideas. Students understand the importance of the animal world. Students are able to reflect from their own experience and that of others and compare perspectives.

Interdisciplinary CONNECTIONS

Science – This report discusses how the genetic diversity of peppered moths has allowed for better survival of black over white moths. Research another animal or plant species that have made significant adaptations for species survival (e.g. camel, fish, etc.). Consider how the environment has evolved and how the animal has adapted with it.

Math – Find an area in your schoolyard and measure its area. Observe and track to see how many different living organisms co-exist in this ecosystem. Look at another different part of your schoolyard and see if there are any similarities or differences between ecosystems?

Global Connections – Adaptation for survival. Consider how a person from a different environment like their school, home, or with friends, in a sports team or...

BIODIVERSITY IN CRISIS 7

Interdisciplinary Connections: suggestions for questions and activities to connect the article with other areas of the curriculum.

Inquiry QUESTION

Each **Issues 21** topic begins with an inquiry question that frames the larger context of the issue. The inquiry question focuses on an overarching idea that students revisit throughout the unit. Revisiting this question will challenge students to examine their thinking and opinions as they learn more about the topic. Towards the end of the topic, students will be better-equipped to locate themselves within the context of the issue, and justify their stance on the inquiry question by using evidence from the text and their own experiences.

Enduring UNDERSTANDINGS

An enduring understanding is primarily connected to concepts found within the Canadian curricula. The *Enduring Understanding* is explicitly stated for each topic. This understanding is formed using one or more big ideas and is framed as an overall understanding. Teachers and students are encouraged to challenge the ‘universality’ of the enduring understanding and the notion of ‘universality’ itself. In order to do this, students deconstruct the enduring understanding and construct their own position/stance on the issue. This may lead students to different ‘truths’ about our world and their place in it.

Anchor Video & SUPPORT WEBSITE

The anchor video introduces the topic to students and builds background knowledge so that students have something to build on as they explore the issues. The website for each topic also includes suggestions for additional narratives, media texts, and current issues including picture books, documentaries, websites, articles, field trips, celebrating days of significance, etc.

Ideas about how the **Issues 21** texts can piggyback on traditional curricular topics and lead to the reading of longer texts, including novels.

Personal Reflection QUESTION

These are a series of reflections or questions you may pose to students to activate prior knowledge of the topic. The questions have multiple entry points for students. You may wish to frontload or scaffold questions or provide alternate questions for students who may have limited personal connections to the topic.

Curriculum (broad definition)	Self and Identity	Social Justice and Equity
<ul style="list-style-type: none"> Covers expectations mandated by the provincial curriculum Recognizes that literacy and numeracy are not ends in themselves; they are means to a deeper understanding of concepts and big ideas Critical thinking skills that focus higher order thinking Moves away from mandated, specific curriculum expectations to big ideas and concepts Includes Canadian perspectives on local and global contexts Includes multi-literacies within reading selections 	<ul style="list-style-type: none"> History and context of the issue Perspectives and values are shaped by culture and identity (race, creed, socioeconomic status, gender, gender identity, age, culture, faith, ability, sex, class, place of birth, nationality, etc.). There is recognition that we have multiple and intersecting identities (e.g. race and class, ability and gender, etc.) and that there is not one story to describe any group of people who share a common culture or identity. Ways of knowing - different ways of seeing and experiencing the world (e.g. competition versus collaboration, individualism versus collectivism, etc.) Relevance and personal connection to the students you teach (honouring their experience of the subject matter, their identities, and their local space) Individual and collective voices can be included, excluded or silenced from any conversation. 	<ul style="list-style-type: none"> There is often not one right answer (grey areas allow for rich conversation). Teachers are encouraged to guard against a finite solution to any problem. Instead, we encourage teachers to appreciate multiple ideas, solutions, and truths. Teachers and students are on their personal journey of discovery and will arrive at their own conclusions that will reaffirm or enhance belief systems and likely change over time. Critical thinking skills encourage diverse opinions that uncover the social, political, environmental, historical, geographic, and economic root causes of issues of social justice and equity. Characteristics of power and privilege: relational, individual, collective, historical, political, economic, social/cultural, and environmental. Power and privilege exists in ideas, relationships and actions. Identifies and questions fundamental societal values and 'truths' such as democracy, multiculturalism, capitalism, human rights and responsibilities, justice and advocacy, etc. Characteristics of justice: punitive versus restorative, short-term versus long-term, equity versus equality, etc. Personal, local, and global impacts and action

Source: Ladson-Billings (1995). Toward a Theory of Culturally Relevant Pedagogy. *American Educational Research Journal*, Vol. 32, No. 3. pp. 465-491.

Assessment

Assessment look-fors are provided for each selection, and cover specific curriculum expectations by deconstructing the optimal questions, and allowing teachers to use them for assessment for, as, and of learning. **Issues 21** aims to support students in developing reasoning and critical thinking.

How can teachers assess student work using this resource? Teachers can use the look-fors to co-construct success criteria with students for each question. The look-fors are a set of statements that reflect the knowledge and/or skills required to meet the specific language expectations at the provincial standard. Teachers evaluate these look-fors (where

and when appropriate) by using qualifiers to indicate students' level of achievement, and to provide students with oral or written descriptive feedback as appropriate and as well as to guide future programming.

Assessment for – For each selection, the **personal reflection questions** can be asked prior to reading to understand a student's background knowledge (assessment for learning). The **optimal questions and assessment look-fors, in combination**, may be used as a diagnostic assessment to help ascertain students' prior knowledge about the content area and grade-appropriate skills and strategies.

Assessment as— Using the assessment look-for as a starting point, teachers may work with students to co-create success criteria which can be used to generate self, peer, and teacher descriptive feedback as students practise the skill. Based on assessment of student performance, the teacher may create differentiated instruction groups/tasks to support the various needs in the classroom moving forward in the unit. Furthermore, teachers may also use assessment to determine the trajectory of the unit (e.g., whole class instruction, shared instruction, guided instruction, and independent instruction) based on student need.

Assessment of – An effective culminating task is open-ended, allows for student choice (differentiated instruction), and allows students to extend their learning to multiple disciplines (interdisciplinary). It is also crucial for culminating tasks to empower students to:

- Understand the historical and contextual issues around the topic from different perspectives
- Raise awareness about the issue in connection to unjust power relations and its impact on current events
- Affect change at the personal, local, and global levels.

An example of deconstructing an optimal question to create assessment look-fors and success criteria:

Optimal Question	Assessment Look-For	Success Criteria
A picture says a thousand words. Why might the photograph have been taken? If there was a caption under this photograph, what might it be? Why did the author include the photograph with this article?	Students can infer the purpose and audience of the photo. Students can create a caption that connects to the intention behind the photo. Students can justify the author’s point of view, about why s/he included this photograph with this report.	<ul style="list-style-type: none"> • I can infer the purpose of the photograph • I can infer the intended audience of the photograph • I have written a caption that is connected to the intention of the photo • I can justify the author’s point of view about why the photograph was included • I used evidence from the text and my own experiences to justify my response • The reader of my response is able to understand my thinking

Assessment For/As/Of: Within each selection, the Assessment Look-Fors are reflected in one or more of the components of learning in the Learning Outcomes Chart (found at the end of each teacher’s guide). After completing several selections within an each **Issues 21** topic, the Learning Outcomes Chart can be used to assess learning from the Optimal Questions using the following components: “Knowledge and Understanding of Ideas”, “Critical Thinking” and “Communication of Ideas”. The

Interdisciplinary Connections questions can be assessed using the “Application of Concepts” component within the Learning Outcomes Chart. Within the Learning Outcomes section, teachers can create qualifying statements to distinguish the range of student achievement (e.g. beginning to, sometimes, often, always). The culminating task can be used as an assessment of student learning, which can be evaluated using all four components of learning from the Learning Outcomes Chart.

Questions TO CONSIDER

At the start of each **Issues 21** Teachers' Guide, there is a list of questions for teachers to reflect upon prior to planning/beginning the unit. The purpose of this section is for teachers to reflect on their own background knowledge, gaps in the subject matter, and experiences/biases about this topic.

- Questions you would ask yourself: to help teachers reflect on their own background knowledge, gaps in the subject matter, and experiences/biases about this topic.
- Questions you would ask yourself about your students: to help teachers to reflect on their students' background knowledge, gaps in the subject matter, and experiences/biases about this topic.
- Questions about social/political contexts: to help teachers to reflect on the role of politics, culture, economics, the environment, and history on the topic.
- Questions about cultural perspectives: to help teachers to reflect on the role of culture, identity, perspectives, and different ways of knowing on the topic.

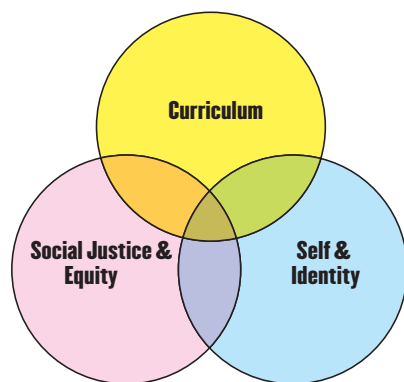
Optimal QUESTIONS

To help students construct meaning, each selection suggests optimal questions that combine curriculum, self and identity, and social justice and equity as a starting point for rich, deep discussions.

The optimal questions build on the work of Gloria Ladson-Billings' (1995) *Culturally Relevant Teaching* and are situated within two or more of the overlapping components of curriculum, self and identity, and social justice/equity. For example, a question from *Freshwater Overfishing* (*Overfishing*, pages 18–19) asks: "Who determines the laws

around fishing in Winnipeg and in Canada? What can be done to help Lake Winnipeg rebuild its fish stocks?" This question combines elements of curriculum (Science, Social Studies, and Literacy) and social justice/equity (who has the power to determine and change laws?).

Optimal questions support the deconstruction of text and content. Through discussion, students can co-construct meaning that will validate or change their beliefs. This allows them to make more informed decisions about if, when, and how to act. A conscious effort has been made to provide opportunities for multiple perspectives and marginalized voices to be analyzed in the **Issues 21** topics. As well, an effort has been made to consider the impacts of the topic on First Nations peoples' histories, cultures, spiritual values, and ways of life. Teachers are encouraged to tailor questions to the students in their classes (e.g., cultural and socioeconomic backgrounds, learning styles, geographic location, prior experiences, etc.).



Interdisciplinary CONNECTIONS

Each **Issues 21** selection has several interdisciplinary suggestions/questions to extend conceptual learning and understanding into other disciplines. This list is not an exhaustive list and teachers/students are encouraged to create additional questions in other disciplines to explore the concepts in greater detail.

Provincial documents encourage interdisciplinary approaches to teaching, to deepen students' conceptual understanding. For example, it is often critical for students to explore the mathematics within critical literacy in order to challenge the power relations being discussed. This helps students make more informed decisions about the topic/

concept. Within **Issues 21** *Overfishing*, students explore Canada's catch-and-release policy as a way to increase spawning cycles. To make a more informed recommendation, students were asked to analyze the frequency of sturgeon spawning cycles. The following questions were posed: How many opportunities might male/female sturgeons have to spawn in their lifetimes? What other conditions might affect the spawning frequency? How does knowing this information of the sturgeon spawning cycle support your recommendations to implement a Canadian policy on sturgeon fishing?

Males (start spawning at 20 years old)	Spawn every 1–3 years	Live until 55 years
Females (start spawning after 20 years old)	Spawn every 4–5 years	Live until 150 years

Global Connections – This section examines concepts/themes within the **Issues 21** selections and asks students to apply these themes to global contexts. For example, in the report *Freshwater Overfishing* (from **Issues 21** *Overfishing*), the concept of “at-risk” is explored. The students are asked the following question: What else in the world do you consider to be at-risk (e.g., democracy, personal and collective freedoms, religion, mental

health, living in poverty, endangered species, etc.)? Explain your thinking.

Within the interdisciplinary section, connections to other subject areas were made as authentically as possible, and as such, they may differ from article to article and book to book.

The following is a legend of symbols to identify subject areas in the Teachers' Guides:



Mathematics



Geography



Health



Dance



Financial Literacy



Science



Physical Education



Music



Social Studies



Global Connections



Art



History



Media Literacy



Drama

ISSUES 21

CONSULTANTS

Dr. Jeffrey Wilhelm: Series Editor

Dr. Jeffrey Wilhelm is an internationally-known educator, author, and presenter. A classroom teacher for 15 years, Dr. Wilhelm is currently Professor of English Education at Boise State University. He works in local schools as part of the Professional Development Site Network, and teaches middle and high school students each spring. He is the founding director of the Maine Writing Project and the Boise State Writing Project. He has authored or co-authored 30 texts about literacy teaching and has won the two top research awards in English Education. His latest book, *Reading Unbound*, explores what passionate readers of marginalized texts get from their reading in terms of “inner work”; psychological satisfactions; and human development (horror, dystopia like *The Hunger Games*, fantasy like Harry Potter, etc.). Jeffrey is the Series Editor for the inquiry-based, non-fiction series *The 10, The 10 Discovery Series*, and **Issues 21** (all Scholastic Canada Ltd.). He enjoys speaking, presenting, and working with students and schools.

Stephen Lewis: Social Justice Consultant

Stephen Lewis is a Distinguished Visiting Professor at Ryerson University in Toronto. He is the board chair of the Stephen Lewis Foundation and he is co-founder and co-director of AIDS-Free World. Mr. Lewis is a Senior Fellow of the Enough Project. He was the UN Secretary-General’s Special Envoy for HIV/AIDS in Africa from 2001 until 2006. He served as Deputy Executive Director of UNICEF in New York from 1995 to 1999. And he was Canada’s Ambassador to the UN from 1984 to 1988. In 2003, Stephen Lewis was appointed a Companion of the Order of Canada.

Dr. Janet Nairne: Health Consultant

Dr. Janet Nairne is a family doctor in Guelph, Ontario. She graduated from the University of Toronto Medical School in 1987. She worked in New Zealand for a year and then established her practice in Guelph. She looks after patients of all ages and in all stages of health and disease. Dr. Nairne teaches clinical skills to medical students as they accompany her in her office. She is also an Investigating Coroner in the province of Ontario, which means she determines the manner of death in sudden, unexplained deaths.

Barry Wellman: Culture & Media Consultant

Sociologist Barry Wellman directs NetLab at the University of Toronto’s iSchool. The co-author of the award-winning *Networked: The New Social Operating System*, Wellman has written more than 200 articles and developed four books. He is a Fellow of the Royal Society of Canada, and the winner of outstanding career contribution awards from the American Sociological Association, the Canadian Sociology and Anthropology Association, and the International Communication Association. He founded the International Network for Social Network Analysis in 1976, and is best known now for his studies of how social networks link with the internet and mobile devices.

Robyn Michaud-Turgeon: FNMI Consultant

Robyn Michaud-Turgeon, M.Ed. (Anishinaabe) is a teacher, author, and curriculum consultant specializing in ESL and Aboriginal Education. She has worked on several provincial and national projects for various major stakeholders to promote Aboriginal perspectives across the curriculum, and create safe and culturally-relevant spaces for Aboriginal students within the public education system. Outside of her consulting work, she currently teaches for the Thames Valley District School Board and Western University in London, Ontario.

Dr. Alex T. Bielak: Environment Consultant

Now heading his own consultancy, Dr. Bielak previously held senior positions with the U.N., various government departments, and NGOs working in the natural resources and environment field. An alumnus of the Banff Centre’s inaugural Science Communications Residency, his expertise is sought worldwide as an authority on science communications, science-policy linkages, and knowledge translation and brokering. His numerous awards include a 2013 Citation of Excellence recognizing “outstanding innovation demonstrated in connecting people to science”. Still actively involved with a variety of organizations as an expert advisor, Alex continues to publish on a number of topics in various media.

Issues 21: Program Overview

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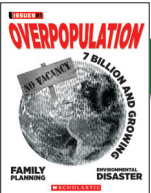
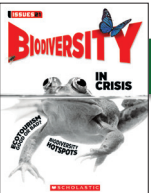
Bring real world issues into the classroom.

Issues 21 uses inquiry to engage and challenge students, and integrates social justice thinking with 21st century learning.

Culture & Media



Environment



Health



Human Rights

