Climate Change Resources For Teachers

PEI - 2020

Learning for a Sustainable Future

LSF

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Climate Change Resources for Teachers

> *Climate change is a problem of global proportions whose solution may collectively be our greatest challenge.* [1]

Climate Change Learning

Learning for a Sustainable Future accepts the consensus of the scientific community that human-induced climate change is underway and that impact at some level cannot be avoided. LSF also supports the view that the degree of harm resulting from human-induced climate change can be greatly decreased by taking action now and that action will be required for the foreseeable future.

Climate change is the most complex and wide-reaching challenge facing humankind today; it is essential that we help younger generations to be better equipped to take on this challenge and that we call on their energy, creativity and need to contribute to help us all take up the task.

While climate change presents educators with daunting challenges, these challenges also present valuable opportunities to evolve practice so that students have a sound understanding of climate change and get involved in contributing to solutions in their schools and communities.

Climate Change Presents Educators with Challenges & Opportunities

Complexity
The scope of climate change and its impacts is immense. Everything we do depends on a stable climate. Our understanding of climate change and its impacts requires an understanding of multiple related systems including physical (glaciers, rivers, sea levels), biological (terrestrial, marine) and human (agriculture, energy, health, economy).

A challenge of this complexity provides endless opportunities for learning, from dissecting the individual systems above, to developing critical thinking and media literacy skills, to exploring multiple sources of information to really comprehend the full scope of the issue

Emotions
Discussion of climate change can lead to feelings of fear and anxiety and cause people to distance themselves from the problem, leading them to disengage, doubt and even dismiss it. So how do we address emotions in the teaching of climate change?

Every individual is different, and emotional responses are influenced by the beliefs, worldviews, and existing emotions each individual brings to the table. Classroom cultures of trust must be created where the range of students' perspectives and questions students have on climate change can be expressed and explored through group knowledge building and critical reflection. There

[1] Weather, Climate and Climate Change: Key Themes in Education for Sustainability, Learning for a Sustainable Future, 2006, page 3.

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are many ways to approach climate change; there is room for fear and hope, wonder and suspense, sadness and curiosity, and all the rest of human emotion.

Changing Worldviews
Addressing climate change requires us to question many of society's norms. This includes: how we define progress and the role of science and technology; capitalism, material growth and consumerism; exploitation of nature; and the dominance of individualistic values, such as freedom, independence, success, performance, social recognition, and comfort. An effective understanding of climate change will be transdisciplinary, apply systems perspectives, span from local to global considerations, and cultivate respectful ways of approaching contested positions—all approaches that are transferable to supporting students' development in other areas!

Conventional Schoolings vs Transformative Learning
Conventional teaching, based on information transfer and finding the "right" answers, does not align well with the complexity of climate change education. With the internet at their fingertips, students have access to more information than they could ever process. And society has not yet found the right answers when it comes to climate change. Our students need more.

Education reforms now promote strategies such as Transformative Learning, Education for Sustainable Development, 21st Century Global Competences, and others that are better suited to tackling complex problems like climate change. These strategies often begin with the understanding and experiences that students bring with them. Educators, who themselves are grappling with climate change issues, take the role of facilitator and guide learners with their questions. School learning is brought into contact with the real world, allowing learners to cultivate creativity and innovation as they bump into real-life complexities. Students develop the attitudes and skill sets necessary to address challenges to which we don't yet have the right answers, the same skills they need to be successful individuals, citizens and entrepreneurs.

Climate Change Websites and Links for Educators

This selection of resources has been compiled based on a position of acceptance of climate change as a human-caused phenomenon that is currently negatively affecting the earth and its systems.

Understanding the Science of Climate Change	
What is Climate? Our scientists explain it all to an eleven-year old	https://www.iisd.org/ela/blog/commentary/climate-scientists-explain-eleven-year-old/
Vital Signs of the Planet	https://climate.nasa.gov/
Nine Pictures That Show How Climate Change Is Impacting Earth	https://futurism.com/nine-pictures-show-climate-change-impacting-earth/
NASA Images of Change	https://climate.nasa.gov/images-of-change?id=623#623-arctic-sea-ice-coverage-hits-record-low
The Guardian UK: The ultimate climate change FAQ	https://www.theguardian.com/environment/series/the-ultimate-climate-change-faq

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Climate Change: Deeper Understanding and Possible and Ways Forward	
Resilience.org aims to support building community resilience in a world of multiple emerging challenges: the decline of cheap energy, the depletion of critical resources like water, complex environmental crises like climate change and biodiversity loss, and the social and economic issues which are linked to these. We like to think of the site as a community library with space to read and think, but also as a vibrant café in which to meet people, discuss ideas and projects, and pick up and share tips on how to build the resilience of your community, your household, or yourself.	http://www.resilience.org/
Union of Concerned Scientists was founded in 1969 by scientists and students at the Massachusetts Institute of Technology. By mobilizing scientists and combining their voices with those of advocates, educators, business people, and other concerned citizens, UCS has built a reputation for fairness and accuracy and amassed an impressive history of accomplishments.	https://www.ucsusa.org/global-warming#.WpsFRHxG0dU

Non-Mainstream Canadian Media that Present Alternative Perspectives on Climate Change	
DeSmog Canada's mission is to make complex energy and environment news accessible to Canadians and to shine a light on critical, under-reported stories.	https://www.desmogblog.com/
The Tyee is an independent news outlet that aims to "revive old-style, long-form reporting and shed light on the stories and solutions big media ignores."	https://thetyee.ca/
National Observer is an independent journalism website with a strong emphasis on ethics and accountability.	https://www.nationalobserver.com/

Climate Change Deniers – Be Aware!	
Friends of Science is a Calgary-based organization that believes the sun is the main cause of climate change, not human activity.	https://friendsofscience.org/
Blog post: "Who needs old-time climate-change deniers when we've got the 'New Climate Denialism'?"	http://rabble.ca/blogs/bloggers/alberta-diary/2017/05/who-needs-old-time-climate-change-deniers-when-weve-got-new

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Climate Change Classroom Learning Resources

Learning for a Sustainable Future (LSF) has identified and reviewed a wide range of climate change classroom resources, children's literature books and videos which are available on LSF's Resources for Rethinking (www.R4R.ca) database.

WWW.R4R.CA is a free online database which provides access to over a thousand excellent, peer-reviewed, curriculum-matched resources for educators from hundreds of publishers. These resources include lesson plans, activities, children's literature, and videos. Educators can search by language, jurisdiction, grade, subject, curriculum unit, and sustainability theme in order to get the perfect resource. About 10,000 teachers per month visit the R4R.ca website to access resources.

Climate Change Learning in Grades K-6

Climate change resources on R4R focus primarily on Grade 7-12. Although we believe climate change is an important issue to be taught at all ages, students younger than grade 7 may not have the developmental readiness to confront the full complexity of the problem. Our climate change resources for grades K-6 focus on the "building blocks" of climate literacy, helping teachers to introduce students to foundational concepts including weather, seasons, energy, habitats and responsible citizenship. These resources are intended to foster a strong, positive connection with the natural world and serve as a sound basis for increasing students' understanding of issues related to climate change. To find K-6 climate change resources on R4R, use the "Theme" search; "Climate Change" is a searchable theme under "Air, Atmosphere & Climate." You can then refine your search to explore specific grades or subjects.

Learning for a Sustainable Future (LSF) is a Canadian charitable organization whose mission is to promote, through education, the knowledge, skills, values, perspectives, and practices essential to a sustainable future. LSF has been working with the federal and provincial governments, universities, business, educators and youth across Canada to support Climate Change and Sustainable Development Education since 1991. LSF's innovative programs and strategic partnerships are reshaping education policy and transforming learning methods, helping students learn to address the increasingly difficult economic, social, and environmental challenges of the 21st century.

For further information on our programs, please contact us at:

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Climate Change Resources for Teachers

Elementary/Middle Level
Secondary

A. Lesson / Unit Plans

Resource Title	Synopsis	Curriculum Connections	
		Grade Level	Subject Area
What in the World Is Happening to Our Climate	Follow up activities to the children's book of the same title. Book introduces young readers to the basics of CC. Students collect data & graph data, build models to demonstrate impacts of sea level rise, calculate their greenhouse gas contributions & develop strategies to reduce emissions.	K-4	Math, Science & Social Studies
Polar Bears & the Arctic	Cross curricular look at the polar bear's arctic habitat & effect of CC. Includes an action component	Upper Elementary	Science & Language Arts
Our Changing Climate	Comprehensive, multi-lesson unit. Balance of content & process. What it is. Causes & impacts, What to do	Upper Elementary	Science, Social Studies & Language Arts
Energy Leaders: Grade 7 Energy Solutions Module	Comprehensive 5-lesson inquiry into climate change. Topics investigated include evidence, causes, renewable energy as a solution, climate action.	Middle	Science
Next Generation Climate (6-8)	Provides videos, graphs, activities, games to explore evidence, causes, and impacts of CC. Includes action ideas	Middle	Science & Social Studies
Getting the Picture	Multi-media tool for individual examination of climate change. Videos, graphics & text examine the what, why, evidence & opportunities for action	Middle	Science & Social Studies
To What Degree	Students use photos from Can. Museum of Science & Tech to explore CC impacts in different sectors across Canada. Specific attention to mitigation, adaptation & action	Middle	Science
How the Arctic is Changing	Stem resource in which students explores changes in sea ice & sea level rise.	Middle	Science
Climate Change in the Garden: One Seed at a Time	Students explore the effect of rising temperatures on food production through a number of hands-on activities. *Subject content*: climate change, ecosystems, plant growth, pollination cycles	Upper Elementary Middle Level	Science
To What Degree?	Series of photos are used to explore climate change in Canada. Explores impacts, mitigation & adaptation. Subject content: Climate change, impacts, mitigation, adaptation	Middle Level	Science & Social Studies
Experience Energy	Students develop an understanding of energy. *Subject content*: energy types, energy efficiency, energy & the environment.	Upper Elementary Middle	Science & Math
Mission Five. How the Arctic is Changing	This Stem unit looks at how the arctic is changing in the context of climate change. *Subject content*: climate change, *sea* level rise and the Albedo effect	Upper Elementary Middle	Science
A Warmer World For Arctic Animals	Examines the impact of climate change on four arctic species and the resulting ripple effects that flow through the ecosystem. *Subject content*: climate impacts, populations, ecosystem concept/dynamics	Upper Elementary Middle	Science
Canada in a Changing Climate: The Living World	Students learn about the impact of climate change on food production in Canada. Through a variety of activities students take a critical look at the various threats that contribute to climate change and find solutions to the problems. *Subject*	Middle Secondary	Science

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Resource Title	Synopsis	Curriculum Connections	
		Grade Level	Subject Area
	content: climate change cause & effect, mitigation & adaptation		
Canada in a Changing Climate: Society and Economy	Students explore causes & consequences of climate change including how to reduce risk and take advantage of opportunities. *Subject content*: climate change, mitigation, adaption, sustainable development, data analysis & management	Middle Secondary	Science, Math & Social Studies
Electricity Conservation & You	Students explore use and consequences of different renewable and non-renewable sources of electricity. *Subject content*: renewable vs. nonrenewable energy, causes and consequences of climate change, greenhouse effect, action plan to reduce emissions.	Middle	Science
Arctic Survivor	Outdoor activity to introduce students to the impacts of climate change on animal populations. *Subject content*: Habitats, limiting factors, population dynamics, climate change in Canada's north.	Upper Elementary Middle	Science & Math
Climate Challenge for 11 to 14 year olds	Students explore the impacts of climate change on communities around the world and the steps being taken to address them. *Subject content*: Climate change causes & impacts, adaptation, action plans	Middle	Social Studies & Science
Ch Ch Ch Changes	Challenges students to think about the effects of changing climate on sea ice in Canada's north and the related problems and challenges that result. *Subject content*: Climate impacts on northern life and culture, graphing, thermal expansion	Middle Secondary	Science, Math & Geography
Corals and Chemistry	Students explore the impacts of climate change on the oceans with particular attention to coral reefs. *Subject content*: carbon cycle, fossil fuels, ph, ecosystems	Middle Secondary	Science
Sow the Seed	Examines the impact of climate change on agriculture. Students grow plants and study various climate effects *Subject content*-plant growth, variables, hypothesis testing, impacts of climate change	Middle	Social Studies, Science & Math
Sunny Schools Resources	Multi activity resource that examines the climate change cause & effects around the world in the context of energy use. *Subject content*: Climate change, energy, renewable vs non renewable, carbon footprint	Middle Secondary	Science, Social Studies, Geography
Taking Our Temperature	Examines health issues related to global warming. *Subject content*- water-borne pathogens, transmission of vector-borne diseases, greenhouse gas effects	Middle Secondary	Science & Health
What's All The Buzz About	Students learn how climate change effects disease transmission. *Subject content* – climate, Infectious disease – transmission & vectors, data collection & presentation	Middle	Health, Social Studies & Math
Eneraction- Sustainable Transportation Lessons	Students explore the environmental impacts of various methods of transportation. *Subject content*-Transportation, Greenhouse gases, Data collection, computation, case study analysis	Middle	Math & Science
Climate Change Negotiations Game	Simulation in which students role play delegates to an international climate conference to negotiate an agreement. Realistic look at the complexity of the issue.	Secondary	Science, Geography & Social Studies 9
What's My Carbon Footprint	Students use an on-line 'calculator' to determine their own carbon footprints and compare them with those from other regions/countries. Suggestions & support for action are included.	Secondary	Science & Geography
Climate Citizen Curriculum	Provides videos, readings, scientific reports, articles, blogs & role plays students use to better understand what goes into climate policy and negotiation. Topics explored include the carbon cycle, carbon budgets, climate targets, and the roles of technology, carbon tax and cap and trade in climate change mitigation and international climate negotiation.	Secondary	Science & Geography
Exploring Canada's	Up to date look at Canada's energy use now and projections for	Secondary	Science & Geography

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Resource Title	Synopsis	Curriculum Connections	
		Grade Level	Subject Area
Energy Future	the future based on current data, trends and competing interests. Includes Indigenous perspectives		
Climate Atlas of Canada	Toolkit to examine climate impacts & efforts in Canada. Includes video, documents & maps that explore impacts, adaptation & mitigation efforts in various regions of the country	Secondary	Science & Geography
Adapting to a Changing World	Students assess individual and national opinions on climate change and explore strategies that communities are employing to adapt to aspects of climate change that are already affecting them or may affect them in the future. *Subject Content*. Climate change case study, adaptation, mitigation	Secondary	Science & Geography
Global Warming Lesson Plan with Video	Designed to be used with the film Mr. Green, a parable about climate change in which a jaded government official becomes the unwitting test subject in an experimental program to curb global warming. *Subject Content*: global warming, climate change, carbon sequestration, biotechnology, photosynthesis	Secondary	Science, Biology & Geography
Canada in a Changing Climate: The Living World	Students learn about the impact of climate change on food production in Canada. Through a variety of activities students take a critical look at the various threats that contribute to climate change and find solutions to the problems. *Subject content*: climate change cause & effect, mitigation & adaptation	Secondary	Science & Geography
Canada in a Changing Climate: Society and Economy	Students explore causes & consequences of climate change including how to reduce risk and take advantage of opportunities. *Subject content*: climate change, mitigation, adaption, sustainable development, data analysis & management	Secondary	Science, Geography & Math
Personal Consumption and Climate Change	This toolkit focuses on using photographs and a range of active teaching and learning approaches and strategies to examine the themes of climate change, personal consumption and responsible living. *Subject content*: consumption, ecological footprint, climate change, sustainable development	Secondary	Geography
Energy: Making Sustainable Choices	Decision-making approach to exploring sustainable energy choices in a Canadian context. *Subject content*: Energy sources & choices, energy supply & demand, energy use & climate change, fracking, oil sands, pipelines, renewable energy.	Secondary	Science & Geography
After Fukushimo	Students explore the question-'should the disaster at Fukushima and others like it force us to take a step back & consider whether such a potentially dangerous energy source is worth the risk for the clean energy it provides. *Subject Content*: meeting energy demands, the pros & cons of nuclear power, climate change	Secondary	Science & Geography
Getting to the Core	Students analyze and graph ice core data to explore the link between atmospheric temperature and carbon dioxide. *Subject content*: Greenhouse effect, climate change, carbon cycle, graphing	Secondary	Science & Geography
Making the Decision About the Construction of an Oil Pipeline Through BC	Students analyze a real-world environmental issue involving the building of a pipeline through the province of British Columbia. *Subject content*: pros & cons of pipelines, First Nations perspectives, critical analysis, sustainable development	Secondary	Geography & Science,
Climate Change in Photos	Students analyze and discuss photos to learn about the impact of climate change. *Subject Content:* Climate Change impacts and responses around the world, climate justice	Secondary	Geography & Social Studies 9
Climate Change, Children and Youth	The resource features activities and support documents that address six interconnected themes as presented in the UNICEF UK's Climate Change Report 2008: Our climate, our children, our responsibility. *Subject Content*: climate change, developing word, food security, water, energy, sustainability	Secondary	Geography & Social Studies 9
Connections to Climate Change in Grade 11 and	Resource provides climate & energy activities connected to outcomes in Biology, Chemistry & Physics. *Subject content*:	Secondary	Science

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Resource Title	Synopsis	Curriculum Connections	
		Grade Level	Subject Area
12 Science	ocean acidification, bio-energy & energy transformation		
Melting Ice	Examines the global causes and effects of melting ice. *Subject content*: global warming, sea level rise, Aboriginal perspectives, interconnectedness	Secondary Middle	Geography & Social Studies 9
What's All The Buzz About	How climate change effects disease transmission. *Subject content* : climate, Infectious disease – transmission & vectors:	Secondary Middle	Health, Geography & Math
The Buffer Zone: Acid Base Chemistry in the World's Oceans	How global warming effects marine environments: *Subject content*: acid- base theory, buffers	Secondary	Science
A Teacher's Guide for the Video Sila Alangotok - Inuit Observations on Climate Change	Explores economic, social and environmental impacts of climate change in Canada's North. *Subject content*-TEK, Aboriginal society, greenhouse gases, climate	Secondary	Science & Geography
Penguins on Thin Ice	Provides materials for musical production dealing with climate change. *Subject content*: musical, dramatic and visual arts composition & presentation	Secondary	Music, Drama, Science
Local Connections to Global Issues: Health	Includes activities that bring to life current child health issues and how the spread of infectious disease is being impacted by changing climate. *Subject content*: Climate change, human health, infectious disease, global citizenship	Secondary	Science, Social Studies 9 & Health
Tread Lightly: Low Carbon Lunch	Students examine the relationship between food choices & climate change and take action to reduce their carbon footprint. *Subject content*: carbon footprint, local food, healthy food, waste reduction	Secondary	Science & Home Economics
Serious Game	In this simulation students are tasked to develop a strategy for reducing consumption of energy, increasing energy efficiency and choosing the best renewable energies. *Subject content*- energy conservation, renewable energy, sustainable development	Secondary	Science, Geography & Social Studies 9
The Big Picture On Climate Change and Biodiversity	Students explore the relationship among climate change, biodiversity and human health. Resource includes a video component, simulation, outdoor activities & an action component. *Subject content*: ecosystems, human impacts, biodiversity, climate change, and human health	Secondary	Science
Chemistry Innovations in Sustainable Development	Chemistry resource includes activities on greenhouse gases and climate change. *Subject Content*: green chemistry practices, biosynthesis, bio-mimicry, bioassay, toxicity	Secondary	Science
Natural Gas. A Cleaner Energy Solution or Just Another Fossil Fuel	Students gather information on natural gas, compare its emissions to those of other fossil fuels and use systems-based analysis to defend their position. *Subject content*: fossil fuels, bridge fuels, greenhouse gases, energy use	Secondary	Science & Geography
Sustainability and Really Cool Technologies	Activities include an examination of our reliance on fossil fuels, peak oil and reducing our dependence. *Subject content*: sustainable development, fossil fuels, peak oil, role of technology, zero waste	Secondary	Science
Understanding Climate Change in Grade 11 & 12 Geography	This resource provides information and inquiry-based activities concerning climate change. *Subject content*: climate change causes & effects	Secondary	Geography
Connecting Climate Change Through Rich Performance Tasks in Grade 10 Science	Another inquiry based approach to the study of climate change. Includes a look at the chemistry of climate change and an option of 2 culminating tasks. *Subject content*: climate change, transportation, forest management, environmental impact assessments,	Secondary	Science
Climate Change, Poverty and Women	Examines climate change as a human crisis through activities that focus on how the most vulnerable are being affected. *Subject content*: climate change, adaptation, social justice,	Secondary Middle	Social Studies 9

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Resource Title	Synopsis	Curriculum Connections	
		Grade Level	Subject Area
	globalization, gender roles		
The Heat is On	Examines correlation & causation within the context of climate change. Specific attention to impacts of human activity on climate. *Subject content*: climate change, fossil fuels, causation, correlation	Secondary	Science & Geography
Moving Oil	In this case study approach, students examine the different ways oil is transferred from place to place and consequence of each. *Subject content*: fossil fuel use, oil transport	Secondary	Science & Geography
Weather Makers	This comprehensive, 15-lesson unit addresses climate science, climate change causes & consequences and encourages students to act on their learning. *Subject content*: weather, climate, climate science, climate change	Secondary Middle	Science
Climate Change & the Arctic	Students identify patterns and trends in Arctic sea ice using maps and satellite imagery then make predictions about the extent and impact of future changes in the Arctic. *Subject content:* climate change, sea ice, maps & mapping	Secondary	Science, Geography & Language Arts

B. Short Videos

Resource Title	Synopsis	Curriculum Connections	
		Grade Level	Subject Area
Climate Change Connections	Entertaining presentation of CC basics: what, why, evidence, impacts, actions	Middle	Science
Unlimited Renewable Energy in the 21st Century	A documentary in which a group of passionate grade six students call on adults to take action to address global warming by moving away from fossil fuels. Subject content: energy consumption, carbon footprint, renewable vs non-renewable, responsible citizenship	Middle	Science
Kids vs Global Warming	Introduces a remarkable young teenager who crusades against global warming	Middle	Science & Social Studies
This Bulb	Natalie Portman, Kyra Sedgwick and Chloe Sevigny explain how small changes in lifestyle can help reduce greenhouse gas emissions.	Middle	Science
Climate Change, Wildlife and Wetlands	Impact of CC on Wildlife. Challenges students to "go outside" and examine how nature is changing. Students are also encouraged to adopt lifestyle choices and actions to help make a difference	Middle	Science

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Resource Title	Synopsis	Curriculum Connections	
		Grade Level	Subject Area
Inuit Knowledge & Climate Change	Elders and hunters examine impacts of global warming on the arctic. The film explores social and ecological aspects of the changing climate and reveals a good deal about the culture & expertise in traditional ecological knowledge	Secondary	Science & Geography
Life on a Shrinking Island	Provides powerful evidence of the impacts of CC in Canada….it's smallest province. Great lead into mitigation/adaptation	Secondary	Science & Geography
Immersive Mixed Reality Climate Change	Narrator is immersed in virtual reality experience of melting glaciers and sea level rise due to climate change. Very effective	Secondary	Science & Geography
Climate 101 Causes and Effects of Climate Change	Examines human impact & consequences of climate change.	Secondary	Science & Geography
Sea Otters vs Climate Change	Illustrates the role of sea otters in marine ecosystem and how that role contributes to climate change mitigation	Secondary Middle	Science
Climate Change in Great Bear Lake	Excellent case study of climate change impacts in the north. Highlights the contribution of TEK in documenting and understanding the impacts of CC	Secondary	Science & Geography,
Adapting to A Changing Climate	Interviews & case studies from around the world illustrate the need for and potential of climate change adaptation	Secondary	Science, Geography & Social Studies 9
The End of the Arctic	Contributes to our understanding of how climate change is impacting the Arctic. Highlights TEK.	Secondary	Science & Geography,
The Big Thaw	This video uses an effective combination of visual and narrative to introduce students to the Arctic as a unique bio-region and what the changes there tell us about climate change.	Secondary	Science & Geography
Sea Level Rise	This video examines the causes and consequences of climate change.	Secondary	Science & Geography

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Resource Title	Synopsis	Curriculum Connections	
		Grade Level	Subject Area
Climate Change Adaptation: It's Time for Decisions Now	This video serves to make students aware that the effects of climate change are here and there is urgency in considering how we are to adapt to this reality	Secondary	Geography & Social Studies 9
Global Warming: It's All About the Carbon	The 5-part video package delivers entertaining chemistry lesson on the behavior of the carbon atom and its role in global warming	Secondary	Science
Can Animals Adapt to Climate Change	This Ted Ed Talk examines how plants and animals are adapting to our changing climate	Secondary	Science
Climate Change 101 with Bill Nye	Bill Nye explains what causes climate change, how it affects our planet, why we need to act promptly to mitigate its effects, and how each of us can contribute to a solution.	Secondary	Science
Chasing Ice	Graphic illustration of the melting of arctic ice	Secondary	Science & Geography
Global Warming: A Way Forward	Images used to illustrate consequences of climate change and the future scenarios that are possible	Secondary	Science & Geography
How to Feed the World in 2050	Examines the relationship between climate change and sustainable agriculture	Secondary	Science, Geography & Social Studies 9
Climate Change-Planet Ocean	Provides a compelling look at the effects of changing climate in the far north	Secondary	Science & Geography
Biodiversity & Climate Change	Examines cause and effect relationship between climate change and biodiversity	Secondary	Science & Geography
Inuit Observations on Climate Change	The video documents climate change in Canada's north from an Inuit perspective	Secondary	Science & Geography

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Resource Title	Synopsis	Curriculum Connections	
		Grade Level	Subject Area
The Cheeseburger Footprint	Tracks the amount of CO_2 emitted from the production of a cheeseburger, then extrapolates the larger impact of fast food on greenhouse gas emissions.	Secondary middle	Science, Geography & Social Studies 9
When a Town Runs Dry	Documents the effects of severe drought on lives of those living in a small farming community	Secondary	Science & Geography
What's the Deal with Fossil Fuels	Fossil fuels. What they are. Why they are a problem. Steps for reducing reliance	Secondary	Science

C. Children's Books/Novels

Resource Title	Synopsis	Curriculum Connection	
		Grade Level	Subject Area
Judy Moody Saves the World	Judy Moody wonders how one person can "heal the world". The story chronicles her personal efforts.	Elementary	Literacy, Language Arts, Science
What in the World is Happening to Our Climate	Explains the basics of climate change through and engaging story of the travel adventures of a young girl and her friends	Elementary	Literacy, Language Arts, Science
My Wounded Island	The book explores the themes of climate change and relocation as well as describing the daily lives of the Inuit people who inhabit the island of Sarichef.	Elementary	Literacy, Indigenous Studies, Science, Social Studies
How We Know What We Know About Our Changing Climate	Introduces young people to current climate change research. Emphasis is placed on the importance of citizen science	Middle	Science, Geography, Geography
Empty	Exciting drama that offers a glimpse of what our world might look with a continued reliance on fossil fuels	Middle	Literacy, Science, Geography
Siberia	The novel describes a world of the future where climate change and habitat destruction have ravaged the Earth. Rosita and Mama struggle to eke out an existence in their bleak environment.	Middle	Literacy, Language Arts, Science & Social Studies
Ship Breaker	Many problems resulting from climate change are exposed in this suspense novel based on salvage practice known as 'ship breaking'	Secondary	Literacy, Language Arts, Science

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