



Learner Outcomes: Climate Change



Climate change refers to long-term shifts in temperatures and weather patterns. Human activities (e.g. burning fossil fuels and agriculture), have been the main drivers of climate change because they generate greenhouse gas emissions that trap the sun’s heat and raise the temperature faster than at any time in at least the last two thousand years. The impacts of climate change include intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity. In order to ensure a sustainable future for all living beings, youth must learn what climate change is and its causes, the impacts on different regions and communities, and actions that can be taken to mitigate and adapt to the climate crisis. The table below outlines key outcomes for learners throughout their education journey.

	THEME	LEARNERS WILL BE ABLE TO . . .	THIS CAN LOOK LIKE:
Foundations Early Childhood Kindergarten-Grade 1	Understanding climate change	<ul style="list-style-type: none"> • Characterize humans as part of nature and explain that we rely on nature for food, water, shelter, and oxygen to survive. • Recognize that Earth is our home and we can, and need to, care for it. • Use the terms weather and climate correctly. 	<ul style="list-style-type: none"> • Describing where food and other products around them come from. • Making observations about living beings such as where they live and what they eat. • Doing an activity that supports local wildlife (e.g. creating a simple bird feeder). • Describing daily weather and different seasons.
	Climate Impact	<ul style="list-style-type: none"> • Build an emotional connection to nature. • Recognize that taking care of the earth is important for the planet and all living beings. 	<ul style="list-style-type: none"> • Experience, explore and actively learn in nature. • Seeing that water and sunlight are needed for flowers to grow.
	Human Activities	<ul style="list-style-type: none"> • Understand that there are things humans can do to care for the planet. • Outline actions that can be taken to reduce our impact on the planet. • Practice reducing, recycling, reusing and recovering. • Describe the ways that our actions impact nature. 	<ul style="list-style-type: none"> • Participating in activities that support nature, such as helping to plant a pollinator garden. • Turning off lights when leaving the room. • Using ‘Good On One Side’ (GOOS) paper for artwork.



Learner Outcomes: Climate Change Continued

	THEME	LEARNERS WILL BE ABLE TO . . .	THIS CAN LOOK LIKE:
Fundamentals Middle Childhood Grades 2-6	Understanding climate change	<ul style="list-style-type: none"> • Articulate what climate is and its role in sustaining all forms of life on Earth. • Explain in simple terms what is climate change and what are the causes. • Recognize the important role of Indigenous knowledge in adapting and mitigating climate change. 	<ul style="list-style-type: none"> • Differentiating between climate and weather. • Recognizing how local plants and animals adapt to the different seasons. • Giving examples of greenhouse gases and their sources.
	Climate Impact	<ul style="list-style-type: none"> • Recognize that climate change has an impact on all life on the planet. • Explain in simple terms the effects of climate change and how we can help to mitigate negative outcomes. • Discuss the effects of climate change on traditional ways of living off the land. 	<ul style="list-style-type: none"> • Identifying that less rainfall can result in less water for plants and less drinking water for humans and other animals. • Identifying concrete effects of climate change on life in our community (e.g. winter is shorter than in the past).
	Human Activities	<ul style="list-style-type: none"> • Identify actions that can be taken to mitigate climate change at the individual and community levels. • Describe jobs and careers that support climate-friendly economic activities. 	<ul style="list-style-type: none"> • Making choices that support a healthy planet, such as walking or biking to school instead of driving. • Identifying careers that contribute to a sustainable planet.
Essentials Adolescence Grades 7 - 12	Understanding climate change	<ul style="list-style-type: none"> • Explain the science behind the greenhouse effect and what causes it. • Identify key elements of Canada's 2050 net-zero emissions goal and UN Sustainable Development Goal 13 (Climate Action) and how they will help to mitigate climate change. • Describe what carbon sequestering is and how oceans, forests and soil play a pivotal role in combating climate change. 	<ul style="list-style-type: none"> • Explaining the greenhouse effect and the effect it has on species migration. • Articulating the purpose of the UN SDGs and Canada's net-zero emission goals. • Describing adaptations required to mitigate climate change in our communities and the world. • Identifying important carbon sinks.
	Climate Impact	<ul style="list-style-type: none"> • Recognize the significant ecological, social, cultural, ethical and economic impacts of climate change on various communities, including First Nations, Métis and Inuit communities. • Identify different climate impacts that exist currently and are anticipated at a global level in the decades to come. 	<ul style="list-style-type: none"> • Identifying that rising sea water levels affecting islands are due to climate change. • Identifying that increases in the frequency and severity of forest fires are the result of climate change.

Learner Outcomes: Climate Change Continued

	THEME	LEARNERS WILL BE ABLE TO . . .	THIS CAN LOOK LIKE:
Essentials Cont. Adolescence Grades 7 - 12	Human Activities	<ul style="list-style-type: none"> Identify and explain which human activities contribute, mitigate and prevent climate change. Outline the concept of climate justice, the disproportional impact globally, and the role of economic, political and social factors in climate change. Identify jobs and careers that support climate-friendly economic activities. 	<ul style="list-style-type: none"> Sharing information about how food production and waste both contribute to and can mitigate climate change. Describing pathways to different careers that support a sustainable future. Identifying climate adaptation strategies that various communities, including First Nations, Métis and Inuit communities, have integrated to adapt to climate change.
Consolidation Early Adulthood Post-secondary	Understanding climate change	<ul style="list-style-type: none"> Demonstrate a deep understanding of the science behind climate change and how science, Indigenous knowledge, economic and social structures can help us find ways to mitigate its effects. Articulate how the increased emission of greenhouse gasses disrupts ecosystems. Identify ways we can contribute to Canada's 2050 net-zero emissions goal. Describe key elements of the Government of Canada's Adaptation Action Plan. 	<ul style="list-style-type: none"> Recognizing how Indigenous People's practices and traditional ecological knowledge contributes to climate change prevention, mitigation and adaptation. Participating in a community project that supports biodiversity affected by climate change. Making changes in daily habits to contribute to Canada's 2050 net-zero emissions goal.
	Climate Impact	<ul style="list-style-type: none"> Articulate the impacts of climate change and the critical need to respect global targets for greenhouse gasses, limiting global warming to 2°C. Summarize the impacts of an increase of 1.5°C on Canada and the world. Recognize nature-based solutions and restoration of ecosystems as forms of mitigating and adapting to climate change. 	<ul style="list-style-type: none"> Actively adopting and promoting habits that contribute to the 2°C global target. Explaining how an increase of 1.5 °C will impact different geographical regions of Canada. Supporting the development and implementation of restoration projects and maintenance of natural ecosystems.

Learner Outcomes: Climate Change Continued

	THEME	LEARNERS WILL BE ABLE TO . . .	THIS CAN LOOK LIKE:
Consolidation Cont. Early Adulthood Post-secondary	Human Activities	<ul style="list-style-type: none"> Recognize the urgency of action and the necessity to make changes at local, national, and global levels to prevent, mitigate and adapt to climate change. Outline how policies are made at the local, provincial, and federal levels. Recall key information about international climate accords. 	<ul style="list-style-type: none"> Researching and analyzing different sources of energy and innovative ways of harvesting and conserving energy. Building awareness of the impacts of different sources of energy (renewable and nonrenewable) and undertaking a campaign to improve the provincial and national energy system. Outlining the importance of climate smart plans at all levels of government such as climate smart forestry. Describing how Canada is doing with the 'Agenda 2030 targets' compared to other countries.