

Teaching the Sustainable Development Goals Through Art

Goal 15: Life on Land Grades 6 to 12





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Acknowledgements



Statement on Reconciliation

The work that Aga Khan Foundation Canada (AKFC) does in supporting teachers and youth to become active global citizens reminds us of the importance of learning, listening and taking action as change makers, all of which are central to the process of Truth and Reconciliation. We are reminded that Canada's reconciliation process with Indigenous Peoples must be continuous and intentional, as do all processes like this around the world. We must remember that Canadian society struggles with the ongoing legacy of colonialism. Our ongoing pursuit of this work reminds us of the importance of understanding and acknowledging history, accurately and completely, to help us make changes that move us towards more inclusive and equitable societies. These reminders will inform our work, in Canada and globally, as we embark on this shared path of reconciliation.

Cover Page Artwork

Image of "Landscape with villagers, travellers and animals". India, ca 1800. $\hfill \ensuremath{\mathbb{C}}$ Aga Khan Museum. AKM461.

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Introduction



17 Global Goals for 2030

In 2015, the United Nations adopted the <u>Sustainable Development Goals (SDGs)</u> – a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030.

These 17 Sustainable Development Goals balance social, economic, and environmental sustainability and are interconnected. Progress towards any goal facilitates progress towards others. The Sustainable Development Goals are also known as the *Global Goals*.

In 2015, nearly half of the world's population—<u>3.4 billion people</u>—was living on less than \$5.50 a day¹. <u>More than 700</u> <u>million people</u> were living in extreme poverty (less than \$1.90 a day)², the majority of whom were in Africa and Asia. The COVID-19 pandemic will push an estimated <u>71 million more people</u> into extreme poverty³.

Developed in partnership with the Government of Canada, this toolkit of lesson plans and activities explores the United Nations' Sustainable Development Goals through:

- Sustainable development initiatives from Aga Khan Foundation Canada (AKFC)
- · Centuries-old artefacts from the Aga Khan Museum (AKM)
- Stories highlighting Canada's commitment and contributions towards the Global Goals



Toolkit Tutorial Video

To make the most of this toolkit, you can watch this short tutorial video which provides an overview of how best to use this toolkit in your classroom.

1 Nearly Half the World Lives on Less than \$5.50 a Day." *The World Bank*. Accessed 19 November 2021.

2 Nearly Half the World Lives on Less than \$5.50 a Day." *The World Bank*, Accessed 19 November 2021.

³ No Poverty: Why It Matters." United Nations Sustainable Development Goals. Accessed 18 November 2021.

Who We Are



AGA KHAN FOUNDATION AGA KHAN MUSEUM CANADA



Committed to breaking the cycle of poverty, Aga Khan Foundation Canada (AKFC) is a non-denominational international development organization and registered Canadian charity. Aga Khan Foundation Canada works in 15 countries in Africa and Asia, tackling the root causes of poverty through a holistic, sustainable, and interconnected set of programs. AKFC programs promote the empowerment of women and girls, and invest in health and nutrition, education, economic inclusion, agriculture and food security, early childhood development, and civil society. Since 1980, AKFC has improved millions of lives in Africa and Asia, with the support of the Government of Canada and thousands of individual Canadians.

Canada

AKFC works with Canadian educators to deepen their understanding of global issues and empower them with practical tools and strategies to engage students as active global citizens. Some of these tools include workshops for students, professional development workshops for educators, videos, and the Inspiring Global Citizens Educator Guide, a pan-Canadian resource designed for intermediate- and secondary-level classrooms.

Sign-up for our monthly newsletter where we share our favourite activities, videos, and resources or book a workshop for your class or district.

The Aga Khan Museum (AKM) showcases the art, culture, and contributions of Muslim civilizations. With a collection of over 1,200 objects-hailing from Afghanistan, China, Egypt, India, Iran, Pakistan, Turkey, and more—the Aga Khan Museum aims to educate, inspire, and connect cultures through art.

The Aga Khan Museum offers programs and resources for teachers, schools, and families. These include museum tours, hands-on workshops, asynchronous courses, virtual classroom visits, and downloadable lessons and activities. including Learning at the Aga Khan Museum: A Curriculum Resource Guide for Grades One to Eight.

Both Aga Khan Foundation Canada and the Aga Khan Museum are part of the global Aga Khan Development Network (AKDN), a family of development agencies with individual mandates that address the social, economic, and cultural dimensions of development.

Goal 15 Life on Land



This toolkit of lesson plans and activities explores the United Nations' Sustainable Development Goal 15—*Life on Land*— through arts and culture.

We will look at sustainable development stories from Aga Khan Foundation Canada's international work, historical artefacts from the Aga Khan Museum's collection, and Canada's work towards the Global Goals.

Curriculum Connections

Across Canada + International Baccalaureate (IB)

This toolkit of lesson plans and activities supports curriculum expectations for Grade 6 to 12 learners across Canada, as well as those enrolled in an International Baccalaureate (IB) programme. There are ties to Social Studies, Visual Arts, World Culture, World Issues, and more. For a full chart of curriculum connections, please see the **Appendix** on <u>page 46</u>.

Learning Outcomes

Sustainable Development Goal 15: Life on Land

Learners will:

- Become familiar with the Sustainable Development Goals (SDGs)
- Understand the importance of the Sustainable Development Goals to the global community
- Understand what "sustainable development" means
- Activate thinking around Goal 15: Life on Land
- Activate thinking around two land environment-related artefacts from the Aga Khan Museum (AKM)
- · Identify connections between the artefacts and land environments
- · Activate thinking around Canada's commitment, contributions, and work towards protecting life on land
- Extend knowledge and understanding by making personal connections, community connections, and/or taking action

Key Concepts:

- Sustainable Development Goals (SDGs), also known as the Global Goals
- Global interconnectedness
- Sustainable development
- Development issues: agriculture, food security, health, climate, biodiversity, deforestation, and forest management
- Connections between culture and land environments
- Using historical artefacts to learn about the past and illuminate contemporary issues

Curriculum Connections

Across Canada + International Baccalaureate (IB)

Learning with Objects

Using Museum Artefacts to Create Conversations

There are several frameworks for working with art and artefacts in the classroom, including the Ontario Arts Curriculum's **Critical Analysis Process** for <u>elementary</u> (pg. 25) and <u>secondary</u> learners (pg. 18). Though this approach is part of the Ontario Curriculum, it is transferable to other curricula across Canada. Other approaches include <u>Object-based learning</u> (OBL) and <u>Visual Thinking Strategies</u> (VTS).

Some of you may have experience using art and artefacts in your classroom, while others may be trying this approach for the first time. We are excited for your journey! Here are some general principles to help you along the way:

- The museum artefact is a window or door onto a wider history.
- Imagine yourself as a conversation facilitator. Your role is to help students unlock what this object has to "say."
- Keep the conversation as student-centred as possible. Make the students active participants in the process of discovery. They can react, describe what they notice, make personal connections, analyze the object, and think about its cultural context. Here there is an additional layer, because you will invite them to reflect on how the object relates to the Global Goals.
- You can share information about the object's historical and cultural context that fuels the conversation.
- Students will respond in different ways, according to their cultural perspectives and unique personal histories. Make room for all their responses!
- If you repeat this approach with different museum artefacts, students will eventually internalize a way of looking past labels, thinking for themselves.

This resource provides questions for every artefact, suggests sequencing for those questions, and provides historical and cultural information to fuel the conversation. Words that are **bolded and italicized** appear in the **Glossary**. The conversational flows in this resource are only possibilities—not the right way, or the only way.

Curriculum Connections

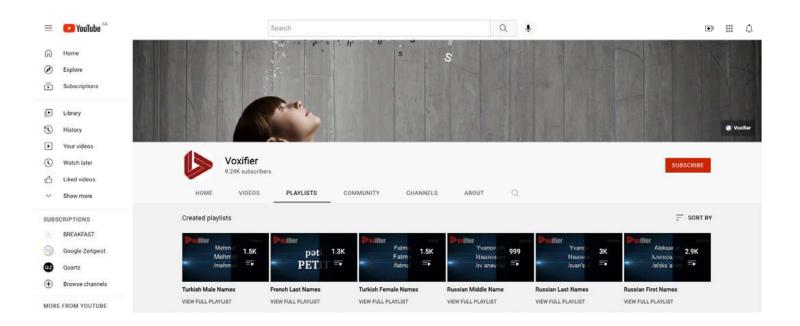
Across Canada + International Baccalaureate (IB)

A Note on Pronunciation

Voxifier

If you or your students have trouble pronouncing some of the names in this document, you can use <u>Voxifier</u> which is a YouTube channel and pronunciation guide that includes many of the names you will come across in this resource. To use the tool, enter a name in the search field and select the video pronunciation guide that corresponds to the language that you are seeking. Voxifier shares the correct pronunciation and phonetic transcription of the name. All recordings are done by professional native speakers and simplified by linguist experts so that non-native speakers can replicate the recordings while maintaining the original pronunciation as much as possible.

Additionally, there may be multilingual learners in your classroom who can help pronounce words—for example, in Arabic or Farsi—which appear in this resource. This is an opportunity to celebrate the languages they speak and showcase their language assets within the classroom community.



Lesson 1

What are the Sustainable Development Goals?

Materials

- Any way of recording ideas
- The Global Goals video: Malala Introducing The World's Largest Lesson
- Sustainable Development Goals poster on page 12 (one per student or projected on a screen)

Procedure

Think

- Invite students to reflect: What do you think are the biggest challenges facing people and the planet today? Have students record their ideas independently.
- 2. Have students organize into pairs or small groups and share their ideas with each other. Invite students to reflect:What ideas are the same? What ideas are different?
- 3. Have students work collaboratively to combine their ideas into one list of challenges facing people and the planet.
- 4. Use one student's idea as a model for the next part of the activity. Suppose the challenge is: "climate change." How can we transform that challenge into a goal that people can work towards? One possibility is: "take climate action." Another possibility is: "reduce pollution." Another possibility is: "invest in clean energy." Emphasize that there are many ways to transform a challenge into a goal.
- arphi 5. Have groups work collaboratively to transform their lists of challenges into goals for people and the planet.
- 6. Invite students to reflect: Review your list of goals. Are there any goals that you can group into the same category? For example, if one goal is "provide free education to all children" and another goal is "build schools where they are needed," you could group these goals into a category, like "quality education."
- 7. Have groups work collaboratively to organize their goals into categories, then share their ideas with everyone.

Connect

- Introduce students to the Sustainable Development Goals (SDGs), by sharing The Global Goals video: <u>Malala Introducing The World's Largest Lesson</u>. If the level of this video does not feel like the best fit for your audience, there are many other videos from which to choose on <u>The Global Goals YouTube channel</u>. Invite students to reflect: What is one piece of information that you are going to take away from this video?
- 2. Share the poster on the next page. In 2015, the United Nations adopted the Sustainable Development Goals

 –a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and
 prosperity by 2030. There are 17 Sustainable Development Goals, and they are also known as the Global Goals.
- 3. Invite students to compare their lists with that of the United Nations: Are there any goals in the United Nations' list that do not appear in your lists? Are there any goals in your lists that do not appear in the United Nations' list? Why might that be?
- 4. Invite students to reflect: How are these 17 goals connected to each other? To make this more dynamic, you could write the numbers 1 to 17 on slips of paper, choose two without looking, then invite students to brainstorm the ways those two goals connect.
- 5. Alternatively, invite students to choose a few of the 17 goals and complete the prompt below:

Without [GOAL] ______, I would not be able to ______

For Example:

Without clean water, I would not be able to drink, eat, be healthy, take a shower, or clean my clothes.

This activity can help students understand the relationship between goals. Have students work independently or collaboratively, then share.

Do

1. To extend learning, have students choose one of the 17 Sustainable Development Goals, explain what it means in their own words. What would they do to support that goal in their school, community, country, or world?





Lesson 2

What is Sustainable Development?

Materials

- Any way of recording ideas
- Handout with examples of sustainable and unsustainable development on page 15 (one per student)
- Testers handout on page 16 (one per student)
- Sustainable Development Goals poster from Lesson 1 on page 12 (one per student or projected on a screen)

Procedure

Think

- Share the examples of sustainable and unsustainable development. Invite students to reflect: All the examples in column 1 have something in common. All the examples in column 2 have something in common. Please compare the examples in column 1 with examples in column 2. Focus on the stories—how are they different? Have students brainstorm independently or collaboratively, then share their ideas.
- Tell students that all the stories in column 2 are examples of *sustainable development*. Invite students to reflect: Based on these examples, what do you think "sustainable development" means? Create your own definition. Have students work independently or collaboratively, then share their ideas.
- 3. Share the definition: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (*The Bruntland Commission Report, 1987*). For younger grades, you may share the definition differently, for example: Sustainable development means changing the world in a way that helps everyone living now survive, making sure that future generations will be able to survive too. Here are some characteristics of sustainable development:
 - It is a long-term approach or solution, that helps people now and will continue to help people in the future.
 - It **builds partnerships** between people and organizations, who work together to identify problems and create solutions. People share knowledge and skills with each other. The approach involves and empowers the people who the solution supports.
 - It protects the environment by minimizing greenhouse gas emissions, minimizing pollution, and taking care
 of habitats and ecosystems. It also uses renewable resources like solar energy and wind energy that
 naturally replenish themselves and will not run out.
 - It supports economic growth, increasing a region or country's goods, services, and wealth.
 - It increases quality of life, creating opportunities; improving people's physical, mental, and emotional health; and increasing their financial security.

Think

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4. To check for understanding, share the *Testers* handout and invite students to reflect: Where does each example belong—column 1 or column 2? Have students work independently, then share their ideas.

Connect

1. Invite students to reflect: Review all the examples of sustainable development in column 2.

Revisit the **Sustainable Development Goals** poster from the previous lesson. Which Sustainable Development Goals do these projects support? For example:

In Bangladesh, the solar-powered lanterns project supports Goal 7: Affordable and Clean Energy.

Emphasize that a single project may support many goals.

Do

- 1. To extend learning, have students choose one example of unsustainable development from column 1 and invite them to reflect: What changes would you make to increase sustainability?
- 2. To extend learning further, have students find a project in their local community that supports the Sustainable Development Goals and share their findings with the class.

Column 1	Column 2
In the United States, the Colorado River supplies water to the cities, farms, and people in Wyoming, Utah, Colorado, Arizona, New Mexico, Nevada, and California. In the 1920s, governments began dividing up the Colorado River's water, building dams, and diverting water to meet their demands. Climate change and overuse have reduced the river's flow. The Colorado River used to reach the sea regularly, but it does not reach the sea regularly anymore.	In her book, <i>Braiding Sweetgrass</i> , Robin Wall Kimmerer describes "the genius of Indigenous agriculture" in the planting of the "Three Sisters"—corn, beans, and squash. The corn grows first, tall and quickly, becoming a support for the beans' looping vine. Later, the low, broad leaves of the squash shelter the soil, keeping it moist, while beans help bacteria convert atmospheric nitrogen to usable nutrients.
Palm oil is used in food, cosmetics, cleaning products, and more. It creates jobs, contributes to the economy, and about half the people in the world depend on palm oil in their diets. Indonesia and Malaysia produce 85% of the world's palm oil ⁴ and export most of it to Europe, China, India, United States, Japan, and Pakistan. Palm oil comes from the oil palm tree. Across Indonesia and Malaysia, tropical rainforests are cut down to create oil palm plantations. This process releases harmful greenhouse gases into the atmosphere. It also displaces communities whose lives are tied to the rainforest for survival. On the island of Borneo, rainforest- cutting destroys animal habitat. This has affected the Bornean orangutan, which is now critically endangered.	In Bangladesh, millions of people live in rural communities without access to electricity. Traditionally, they have used kerosene lanterns for light at night. The SEED partnership is converting kerosene lanterns into solar-powered lanterns. This saves families money, reduces harmful carbon dioxide emissions, and allows children to study in the evening.
	In Mozambique, many people living in rural communities make their living by farming but struggle to earn an income. Aga Khan Foundation Canada (AKFC) has shown farmers techniques that produce more food and organized farmers into associations. These farmers learn from each other and combine their harvest, which attracts more buyers, increases the farmers' income, and makes it possible for them to send their children to school.
South America's Amazon rainforest spans 6.7 million km ² and helps stabilize Earth's climate. It is home to <u>10% of Earth's known</u> wildlife ⁵ , but every minute, an area the size of <u>3 football fields</u> ⁶ (about 10½ ice hockey rinks, or 33 basketball courts) is deforested, mostly for cattle ranching that produces beef. Trees release water into the atmosphere. As trees are cut down, the atmosphere becomes drier and hotter, which increases forest fires and deforestation. Over time, the rainforest can transform into a savannah.	In Tajikistan, about 75% of people ⁷ live in rural areas. The Aga Khan Development Network (AKDN) set up eHealth services to improve access to health care. When Mavjuda visited a local doctor, he examined her ear with a medical device and shared the images electronically with a specialist in Afghanistan. The specialist diagnosed the problem and suggested treatment. These eHealth services save patients time and money traveling to faraway clinics and hospitals.

4 "Palm Oil and Biodiversity." International Union for the Conservation of Nature (IUCN). Accessed 20 September 2021.

- 5 "The Amazon." <u>World Wildlife Fund</u>. Accessed 7 October 2021.
- 6 "Pasto-Mocoa: Driving Better Roads." *World Wildlife Fund*. Accessed 7 October 2021.
- 7 "Rural population (% of total population) Tajikistan" <u>The World Bank</u>. Accessed 18 January 2022.

Testers

A.

In Denmark, the city of Copenhagen wants to be the world's first carbon-neutral city by 2025. "Carbon neutral" means the carbon dioxide emissions the city produces will be equal to the carbon dioxide emissions the city reduces, plus the green energy it creates. As part of its plan, the city will install more than 100 wind turbines, which use wind to make electricity. It will also encourage more people to walk, bike, and use public transportation.

C.

In Sri Lanka, Rice & Carry is transforming used plastic rice bags into pencil cases, lunch bags, picnic blankets, and more. When the project started in 2012, there were two goals: to reduce plastic waste and to create job opportunities for women. Everything is handmade by a team of women who are artisans and skilled seamstresses. These women hail from rural villages, work in safe conditions, receive fair wages, and train new employees.

В.

In Australia, every year, thousands of people make their way to the coast of Western Australia to go "crabbing" for blue swimmer crabs. Some are commercial fishers, who sell what they catch to earn an income. Some are recreational fishers, who fish for sport or fun. To keep the blue swimmer crab population healthy, the fishery regulates trap types, the number of traps, the number of people who can fish, and how much fish they can catch.

D.

These days, people around the world are buying more clothes and throwing them away more quickly. The fashion industry produces **8-10% of the world's greenhouse gas emissions** and uses a lot of water—it takes **9,982 litres of water**⁸ to make one pair of jeans. Chemical dyes used to colour clothing pollute the water, harming both people and marine life. The fashion industry also employs over 75 million people around the world, many of them women.

E.

The Great Lakes hold more than 20% of the Earth's freshwater. The Great Lakes basin supplies drinking water to about **25% of people in Canada and 10% of people**⁹ in the United States. Canadian and American scientists have teamed up for The Great Lakes Environmental and Assessment and Mapping Project (GLEAM). They are making maps that show environmental stresses on the lakes, like shipping, development, invasive species, and climate change. These maps can help people protect the Great Lakes.

F.

In Tajikistan's Pamir Mountains, food insecurity, pollution, and deforestation pose challenges. Aga Khan Foundation Canada (AKFC) gave money to Navras, a local engineer, who dreamed of building an all-season greenhouse. Navras heats the greenhouse with solar power and by recycling used motor oil. This reduces motor oil pollution and the need for fuel wood. He grows affordable tomatoes, cucumbers, and leafy vegetables for his community.

8 "ActNow for Zero-Waste Fashion." United Nations Sustainable Development Goals. Accessed 8 October 2021.

9 "Pollution in the Great Lakes." *Canadian Geographic*. Accessed 19 November 2021.

Lesson 3

Aga Khan Foundation Canada Spotlight: The Famous Farmers of Ishkashim

Materials

- Any way of recording ideas
- World map
- Aga Khan Foundation Canada (AKFC) video: <u>The Famous Farmers of Ishkashim</u>
- The Famous Farmers of Ishkashim Reflection Questions on page 21, one per student
- Community Food Project graphic organizer on page 23, one per student

Procedure

Think



1. Prior to this lesson, invite students to reflect and do a little research: What food do you eat? Where was the food grown or made?

- 2. Introduce the topic of Sustainable Development Goal 15: Life on Land. This goal focuses on the way human activity changes the surface of the Earth, which affects ecosystems and *biodiversity*. The goal is to use land and water in sustainable ways, reduce *land degradation*, and protect biodiversity.
- 3. Invite students share their foods and the foods' countries of origin. Locate them on a world map.
 - 4. Invite students to reflect: People often say: "eat locally," meaning try to eat food grown in your local area. Why? What are the advantages of eating food that has been grown locally? Have students record their ideas independently, then share.

Possibilities include: Less environmental damage, fewer *greenhouse gas* emissions from vehicles transporting foods long distances, supports local growers and local economy, less food waste, and more.





Connect

- 1. Show the Aga Khan Foundation Canada (AKFC) video, <u>*The Famous Farmers of Ishkashim*</u>. Note that the film was recorded before the COVID-19 pandemic and health crisis.
- 2. Facilitate a discussion around the video, inviting students to reflect on the questions below. The reflection questions are also provided in the form of a handout on page 21.
- A
- 3. This video features four brothers, who are farmers in Ishkashim, Afghanistan. What challenges do the people of Ishkashim face?

Possibilities include: This region of Afghanistan has a mountain climate, with a high altitude, cold climate, and little rain. Farming is challenging because it is harder to access arable land and water. Traditional farming techniques do not work well. Many children in this rural area suffer from poor nutrition or malnutrition. At the start and end of the film, students may notice a channel of water. Mountain snow melts and flows down to join the Panj River, which forms part of the border between Afghanistan and Tajikistan. The channel of water seen in the film is part of a canal system that brings water to fields for *irrigation*. Media reports may influence students' responses, and they may raise the idea of conflict. Ishkashim is a border town in Afghanistan, which neighbours Tajikistan. Conflict may create additional pressures on this area, especially if there is an influx of people trying to leave Afghanistan.

4. One of the brothers says that people used to bring wild vegetables, like mustard plants, down from the mountain.
 How has food and the source of food changed over time?

Possibilities include: There is more greenery, and people are farming fruits and vegetables that they can both eat and sell – onions, potatoes, carrots, onions, radish, and enormous beets and cabbage.

Connect

5. What makes the farmers' approach to farming sustainable?

Possibilities include: It is chemical-free and does not damage the ecosystem. They use river water and well water, but demand does not exceed supply. They use sheep manure, which is natural and will continue to be available. They bring sheep manure down from the hills by donkey, a form of transportation that does not pollute the environment. The manure keeps the ground warm as it fertilizes. The farmers are self-reliant, which means they do the work themselves and do not depend on others. It is important to distinguish between subsistence farming and commercial farming. Subsistence farming happens in a small area and is intended to fulfil the needs of the farmer; any surplus may, for example, be sold in a nearby market. Commercial farming happens over a large area and is intended for trade and profit.

6. How do the farmers and their families benefit?

Possibilities include: They have received training and ongoing education helps them succeed and mentor future generations. They eat some of the food and sell the rest at market to earn an income. There is a trans-boundary market, where Afghans and Tajiks buy and sell goods. They use the money they earn to buy rice, cooking oil, salt, sugar, and more.

7. How are geography, climate, food, health, gender equality, and financial security connected?

Possibilities include: Climate is connected to geography, or where people live in the world. If people live in remote locations, it may be harder for them to access food. The seasons, temperature, rainfall affect farming and what food farmers can or cannot grow. This, in turn, affects nutrition, overall health, and earnings. Though this film focuses on four brothers who are farmers, there are many farmers who are women. According to a 2009 report, in developing countries, <u>45% to 80% of food produced</u> was being grown by women farmers.¹⁰ Women are affected differently and more severely by climate change. Climate change increases maternal mortality rates and rates of child marriage. Further, around the world, women and girls are responsible for collecting water in <u>80% of households</u> without access to clean water at home.¹¹ With climate change, women tasked with obtaining water, food, and fuel may have to work harder and longer carrying out this labour. When climate changes, water may be in short supply, or in excess, and weather and soil may no longer support the growth of old crops.

10 "Women, Gender Equality and Climate Change." <u>United Nations Women Watch</u>. Accessed 21 November 2021.

11 "Goal 6: Clean Water and Sanitation." United Nations Sustainable Development Goals. Accessed 30 September 2021.

Do

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To extend learning, have students conduct research in their community. What sustainable community food projects can they find?

For example, some areas have community gardens, where the people in the neighbourhood plant the seeds, tend to the garden, and then eat from what grows. There are also food banks and plant-a-row programs, where people plant and donate a row of garden produce for the hungry.

2. After students have identified a community food project, have them explore the project in depth, then make a poster or write a blog article that shares the story. We have included a *Community Food Project* graphic organizer on page 23 to help students focus their research and organize ideas.

The Famous Farmers of Ishkashim

Reflection Questions - Page 1 of 2

1. This video features four brothers, who are farmers in Ishkashim, Afghanistan. What challenges do the people of Ishkashim face?

2. One of the brothers says that people used to bring wild vegetables, like mustard plants, down from the mountain. How has food and the source of food changed over time?

The Famous Farmers of Ishkashim

Reflection Questions - Page 2 of 2

3. What makes the farmers' approach to farming sustainable?

4. How do the farmers and their families benefit?

5. What is the relationship between geography, climate, food, health, and financial security? Alternatively, how are geography, climate, food, health, and financial security connected?

Community Food Project

Name of Project:	
What is the community food project and why was it started?	Who is involved in the food project?
What challenges have there been, setting up or running the food project?	What solutions have people put in place?
What makes the food project sustainable?	Who benefits from the food project? How do they benefit?

Lesson 4

Aga Khan Museum Spotlight: Landscape with villagers, travellers, and animals

Materials

- Any way of recording ideas
- An image of the Aga Khan Museum's painting, Landscape with villagers, travellers, and animals, on page 28

Procedure

Think

1. Show students the image of *Landscape with villagers, travellers, and animals*, with no title or other information. If it is possible for students to enlarge and zoom in on details, encourage them to do so. Facilitate a discussion around the painting, inviting students to reflect on the questions and information below.

2. How does the weather look? What can you tell me about the climate in this place? What clues gave you that idea?

Possibilities and key points: The weather looks overcast, as though it has rained or may rain. There are palm trees, so it is probably a warm climate.

3. How would you describe the land or landscape in this painting?

Possibilities and key points: It is a *rural* landscape, very green, with rolling hills. There are ponds, as well as a stream winding through the landscape. The stream may be a river, or a smaller creek. If you look closely, you will notice that the water in the stream stops partway, and the rest of the channel is dry – that is where carriages, people, and other animals are travelling.

4. What can you tell me about the plants in the painting?

Possibilities include: There are trees, but not many. Some of the trees look like palms. It is very grassy.

5. What animals do you notice in this painting, not including the humans?

Possibilities and key points: There are camels, dogs, horses, oxen, and many cows. In the foreground of the painting, right of centre, there is a mule, which is a hybrid of a horse and donkey. In the foreground of the painting, in the left corner, there are deer and antelopes. These antelopes are called blackbucks. The males are dark brown with long, twisting horns. In the centre of the painting, there is a group of wild boars. In the middle ground of the painting, on the left, there are some rabbits. Near the large pond, there are ducks, taller birds that may be egrets or herons, and even a lion.

Think



6. What can you tell me about the people in this painting?

Possibilities and key points: There are many people, and some of these people are farmers. The painting also shows many types of transportation. Some people are riding camels; they are traveling salespeople, transporting their wares. Some are on horseback, escorted by soldiers. Some people are riding in ox-drawn carriages; the two carriages carrying women only are escorted by soldiers. If you can zoom in, in the foreground, on the right side, there is a person in a hut pouring water into the hand of a passer-by. In the background, there is a village and a Hindu temple.

7. What part of the world do you think this painting is showing? What clues gave you that idea?

The setting is India. The warm climate, Hindu temple, and the type of animals are clues.

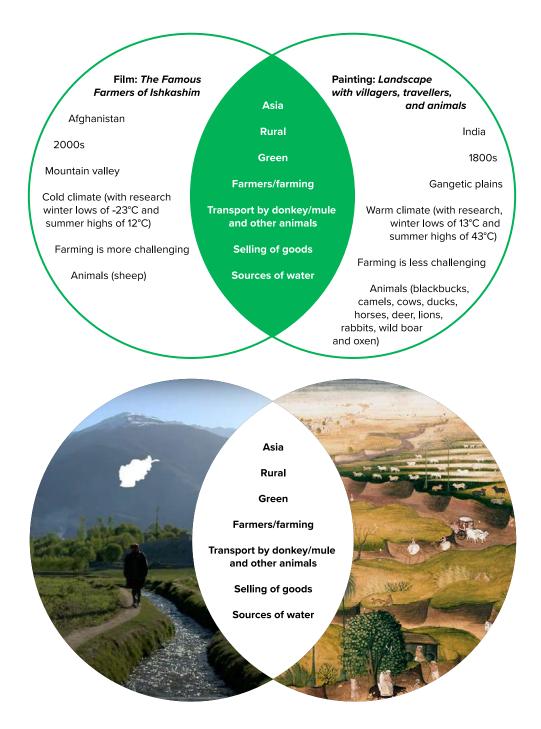
- 8. This painting was made in India in 1800, over 200 years ago. It shows a northern Indian landscape set in 01) the Ganges River Basin. The Ganges River is one of the largest rivers on Earth. It starts high in the Himalaya Mountains, travels through India and what is now Bangladesh, and empties into the Bay of Bengal. The river basin is the region drained by the river and its tributaries. There is a heavy rainy season in July, August, and September, and a dry period in November, December, January, February, March, and April. As you can see, there is not a lot of forest in this area.
- 9. The people in the painting are living on the land. What makes their way of life sustainable?

Possibilities include: They are not polluting the environment. They are not using resources faster than the earth can replenish itself. The animals in the area suggest that biodiversity is healthy. Some of the plants in the painting appear to be mature which means they have been taken care of adequately over the long-term. The land is divided, used, and developed in a way that allows for the harmonious existence of plants, animals, and humans.

Connect

1. Invite students to reflect: Think about the film we watched in the previous lesson, <u>The Famous Farmers of</u> <u>Ishkashim</u>. What similarities do you notice? What differences?

To consolidate ideas, students may organize their ideas into a Venn diagram. In a Venn diagram, there are two large, overlapping circles. The first circle is for details unique to the film. The second circle is for details unique to the painting. The area of overlap is for details common to both the film and painting.



Connect



2. Invite students to reflect: Both the film and painting show rural environments. In what way are people living in rural communities impacted differently by biodiversity loss and land degradation than those living in urban communities?

Possibilities include: Most people living in rural communities in developing countries rely on their natural environment to support their nutrition, health, and financial security, so they will feel the impact of biodiversity loss and land degradation more keenly. A plant or animal on which they depend may disappear, or fertile land for agriculture may shrink.

Do

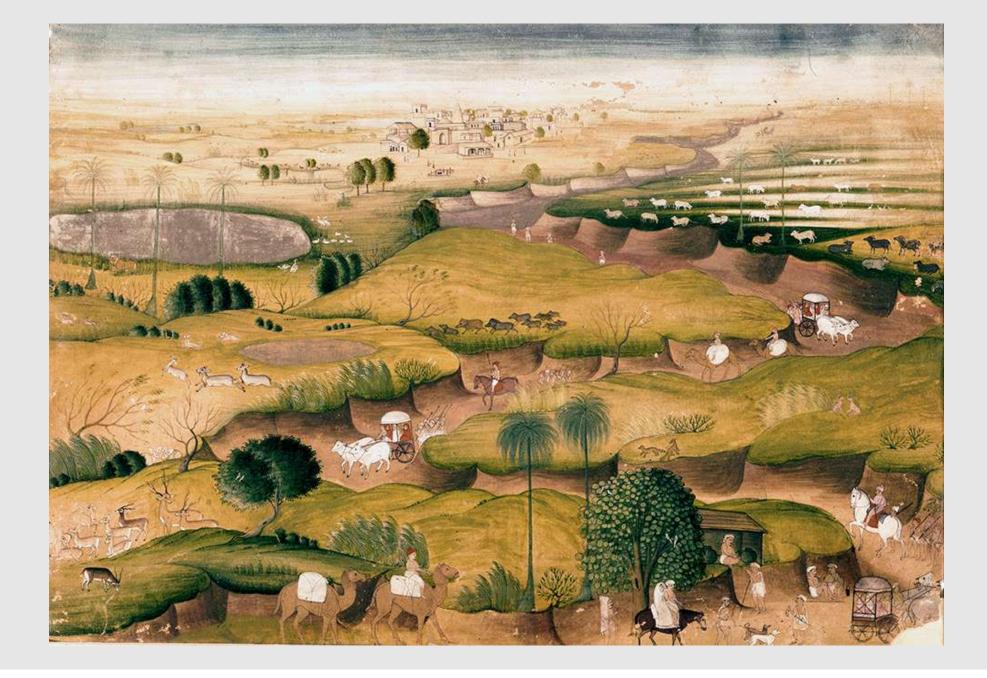
/}

1. To extend learning, have students explore the topic of agriculture further. Have students identify an agricultural product that has controversy around it.

Possibilities include, but are not limited to:

- Beef
- Soy
- Palm oil
- Sugarcane
- Dairy
- Cotton
- Quinoa
- Coffee

2. After students have identified or chosen an agricultural product, have them research it in depth, collecting stories and statistics that show the controversy: What are the benefits of the product? What is the environmental cost? What current practices are unsustainable? What are some sustainable solutions? The World Wildlife Fund Sustainable Agriculture website is a great resource. Have students present key findings in the form of an infographic.



Landscape with villagers, travellers, and animals

Place: India, Oudh, Lucknow | Date: ca 1800 | Materials and Technique: Ink and watercolour on paper | Dimensions: 28.7 cm × 41.4 cm | Accession Number: AKM461

Lesson 5

Aga Khan Museum Spotlight: Kashkul (Beggar's Bowl)

Materials

- Any way of recording ideas
- An image of the Aga Khan Museum's object, <u>Kashkul (Beggar's Bowl)</u>, on page 32
- Aga Khan Museum's Artefact video for the Kashkul (Beggar's Bowl)
- The Guardian article, "Nuts for coco de mer: islanders rally to save the world's biggest seed"
- Biodiversity Loss and Conservation graphic organizer on page 34, one per student

Procedure

Think

- 1. Show students the image of the *kashkul*, with no title or other information. Facilitate a discussion around the object, inviting students to reflect on the questions and information below.
- 2. How do you think this object was used? Alternatively, what are three possible uses for this object?

Answers will vary.

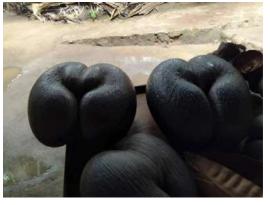
- 3. This object was made in Iran, in the 18th century over 200 years ago. It is known as a *kashkul*, or beggar's bowl. *Kashkuls* were carried by spiritual people, specifically Sufi Muslim mystics. These mystics gave up their worldly possessions and used *kashkuls* to collect alms like money or food from generous people. The calligraphy carved into the *kashkul* features two languages, Arabic and Farsi. The writing includes prayers and supplications.
 - 4. What materials do you think were used to make this kashkul?

Answers will vary.

Think

5. This kashkul is made from half of a giant seed. The seed comes from the double coconut palm tree, also known 01) as coco-de-mer. This tree produces the largest and heaviest seeds in the world; the seeds grow up to half a metre long and weigh up to 25 kilograms, or roughly 55 pounds.





Seychelles.

Double Coconut Palm Tree, Seed of the Double Coconut Palm Tree. Photo by Radosław Botev¹²

The double coconut palm tree, or coco-de-mer, only grows in the wild on two islands in the entire world. Both islands are part of the Seychelles, an archipelago island country located off the east coast of Africa, in the Indian Ocean. Sometimes these giant seeds travelled away from the Seychelles and washed ashore in southern Iran and India.

The journey made the seeds special. Some people thought the seeds' journey was like a spiritual person's journey. That is why the seeds were used to make kashkuls.



12 Seed of the Double Coconut Palm Tree By Radosław Botev, CC BY 3.0 pl. Changes: border added.

Connect

1. Share with the students: Today, the double coconut palm tree, or coco-de-mer, is endangered. There are only about 8,000 wild and mature trees growing in the Seychelles.¹³ It can take up to 50 years for a young tree to grow into a mature tree that can reproduce. The government of Seychelles protects the trees and seeds through a permit system, but *poachers* still steal the seeds to sell for profit. In 2020, the government of the Seychelles and the Seychelles Islands Foundation (SIF) launched a new *conservation* plan to protect the double coconut palm tree.

2. Share The Guardian article, "Nuts for coco de mer: islanders rally to save the world's biggest seed."

Read through the article with students, then have them work independently or collaboratively to complete the Protecting the *Double Coconut Palm Tree (Coco-de-Mer)* graphic organizer on page 33. After students are done, have everyone share ideas.

3. Invite students to reflect on the following three questions:

- What drives poaching?
- What is the relationship between poverty, poaching, and biodiversity loss?
- What is necessary to protect endangered plants, animals, and ecosystems?

To stop the poaching of endangered plants and animals, it is crucial to reduce poverty and increase people's security. Inequality, a lack of security, and limited opportunities for stable and sufficient employment are often major driving forces that lead to poaching.

It is also important to demarcate land for wild animals and create sanctuaries for wildlife, especially for those which are on the verge of extinction.

Do

X

- 1. To extend learning, have students identify another endangered plant or animal involved in illegal trade, as well a related conservation project. Possibilities include, but are not limited to:
 - Elephant ivory
 - Rhinoceros horn
 - Tiger skins
 - Tortoise shell
 - Coral
 - Shark fins
 - 2. After students have identified or chosen an issue, have them complete the *Biodiversity Loss and Conservation* graphic organizer on page 33 in point-form.

13 "Double coconut: The largest seed in the world." Kew Royal Botanic Gardens. Accessed 30 September 2021.



Kashkul (Beggar's Bowl)

Place: Safavid or Qajar Iran | Date: 18th century | Materials and Technique: Carved nutshell (coco-de-mer), with chain as a later addition | Dimensions: 61 cm | Accession Number: AKM640

Protecting the Double Coconut Palm Tree (Coco-de-Mer)

Endangered plant or animal:		
Location:		
How endangered is the plant or animal?	What threatens its survival?	
What are people doing to protect it?	In what ways are the protections working?	
In what ways are the protections not working?	What new ideas have been proposed? Or, what new ideas do you have?	

Biodiversity Loss and Conservation

Endangered plant or animal:			
Location:			
How endangered is the plant or animal?	What threatens its survival?		
What are people doing to protect it?	In what ways are the protections working?		
In what ways are the protections not working?	What new ideas have been proposed? Or, what new ideas do you have?		

Extend Your Learning

Canada and the Global Goals

Materials

- Paper, pencils, markers, coloured pencils
- The infographic, "Canada's conserved areas" on page 38
- Google Earth Pro, free and downloadable to desktop
- <u>Canadian Protected and Conserved Areas Database</u>

Background Information

- In Canada, the Minister of Children, Families, and Social Development is responsible for leading the country's efforts towards the Sustainable Development Goals, working collaboratively with all other ministers and their departments.
- The Government of Canada has identified "Ambitions" and "Targets" for all 17 Sustainable Development Goals (SDGs).
 You can find these ambitions and targets in the <u>Canadian Indicator Framework (CIF) for the Sustainable Development</u> <u>Goals Data Hub</u>.
- For Goal 15, Life on Land, one Ambition is that Canada "conserves and restores ecosystems and habitat." The related Target is to "conserve 25% of Canada's land by 2025, working towards 30% by 2030."

Procedure

1. Show students the infographic, "<u>Canada's conserved areas</u>." Invite students to reflect: What stands out to you in this infographic?

Answers will vary.

- 2. This infographic shows Canada's conserved areas. In this context, the words "conserved" and "protected" do not have the same meaning. Conserved areas include protected areas, like:
 - Indigenous protected areas
 - National, provincial, and territorial parks
 - National wildlife areas
 - Migratory bird sanctuaries
 - Marine protected areas

Conserved areas also include places that are not protected, but where there are other *conservation* measures in place, like:

- Indigenous territories
- Watersheds or resource management areas
- Areas where access is restricted

×

3. Invite students to reflect: How does environmental conservation relate to Indigenous rights?

Possibilities and talking points include: Around the world, Indigenous people have been and continue to be removed from their lands in the name of environmental conservation. 80% of the world's biodiversity is on Indigenous lands, and they are experienced and effective protectors.¹⁴ Indigenous led and co-led conservation efforts are a way forward.

In Canada, <u>Indigenous Protected and Conserved Areas</u> (IPCAs) are lands and waters where Indigenous laws, governance, knowledge systems, language and culture play the primary role in protecting and conserving ecosystems. Currently, <u>27 communities</u> across the country are receiving funding to establish Indigenous Protected and Conserved Areas, and there is also an <u>Indigenous Guardians Pilot program</u>.

4. Canada's Target is to "conserve 25% of Canada's land by 2025, working towards 30% by 2030." Invite students to reflect: How do you feel about Canada's goal?

Answers will vary.

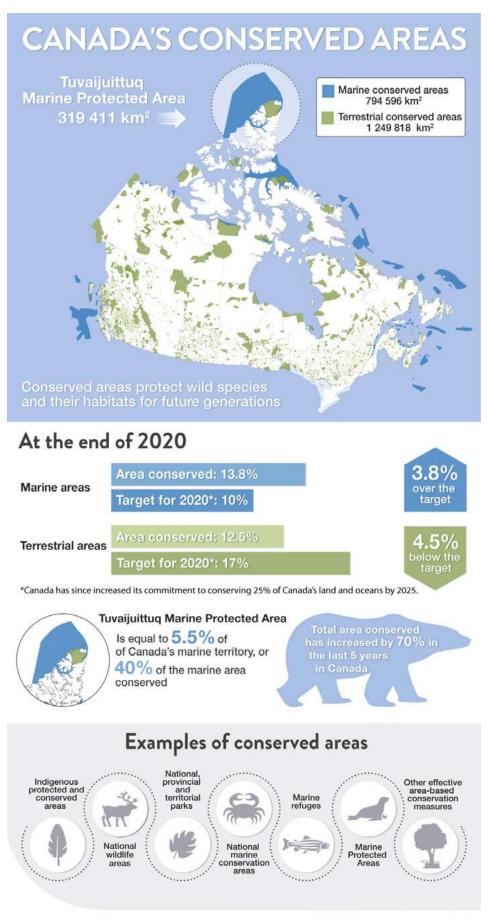
5. Between 2015 and 2020, Canada's total conserved area <u>increased by 70%</u>.¹⁵ Invite students to reflect: Do you think Canada will meet its Target of conserving 30% of the land by 2030? What measures do you think Canada needs to put in place to do so? What recommendations would you make?

6. If possible, have students download <u>Google Earth Pro</u> – it's free and works on a desktop.

14 "Indigenous Peoples: The unsung heroes of conservation." United Nations Environment Programme, Accessed 23 February 2022.

^{15 &}quot;Canada's Conserved Areas." Government of Canada: Environment and natural resources. Accessed 30 September 2021.

- 7. If possible, have students visit the <u>Canadian Protected and Conserved Areas Database</u> and download the December 2020 CPCAD data for Google Earth[™]. After, when you double-click the download, it should open automatically in Google Earth Pro.
- 8. Invite students to explore the map and choose one conserved area (one of the colour dots on the map). When they click on the dot, more information should appear, including the type of conserved area, as well as a link to more information. Have students learn about their chosen area, then share with the class.



Canada.ca/Environmental-Indicators

Canada

Glossary

Aga Khan Development Network (AKDN): A global family of development agencies with individual mandates that address the social, economic, and cultural dimensions of development. AKDN works in over 30 countries around the world, enhancing and promoting agriculture and food security, architecture, culture, education, environmental stewardship, financial inclusion, health, industry, infrastructure, media, music, tourism, and more.

Aga Khan Foundation Canada (AKFC): A non-denominational international development organization and registered Canadian charity. AKFC works in 15 countries in Africa and Asia, tackling the root causes of poverty through a holistic, sustainable, and interconnected set of programs. AKFC programs promote the empowerment of women and girls, and invest in health and nutrition, education, economic inclusion, agriculture and food security, early childhood development, and civil society. In Canada, AKFC empowers the public to learn about global development, channels skills and expertise to support its work overseas, and promotes learning and exchange within the development sector. Since 1980, AKFC has improved millions of lives in Africa and Asia, with the support of the Government of Canada and thousands of individual Canadians. It is an agency of the global *Aga Khan Development Network (AKDN*).

Aga Khan Museum (AKM): A museum located in Toronto, Ontario, Canada that showcases the art, culture, and contributions of Muslim civilizations. With a collection of over 1,200 objects – hailing from Afghanistan, China, Egypt, India, Iran, Pakistan, Turkey, and more—the AKM aims to educate, inspire, and connect cultures through art. It is an agency of the global Aga Khan Development Network (AKDN).

Agriculture: The art and science of farming, which includes cultivating the soil, growing and harvesting crops. Agriculture also includes raising livestock, like cows and sheep.

Biodiversity: All living things, including plants and animals. Biodiversity can also describe the living things in a specific region or ecosystem.

Child marriage: Any marriage where at least one of the parties is under 18 years of age. Child marriage is considered a form of forced marriage, which is a marriage that happens even though one or both people do not consent to marry each other.

Conservation: Protecting and taking care of Earth's natural resources for current and future generations. This includes protecting and taking care of the air, soil, water, minerals, plants, and animals.

eHealth: An approach to health care that includes health services and health information delivered or improved by the Internet and related technologies. For example, if you are sick and consult your doctor using a video conferencing platform like Zoom, that is an eHealth service.

Global Goals: Another name for the *Sustainable Development Goals (SDGs)*, adopted by the *United Nations* in 2015—a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030. There are 17 SDGs. They balance social, economic, and environmental sustainability and are interconnected.

Greenhouse gas: A gas that warms Earth's atmosphere, because it absorbs solar heat reflected by the surface of the Earth. Examples of greenhouse gases are carbon dioxide, methane, ozone, and water vapor.

Irrigation: Watering crops in an artificial way, rather than relying on rain. Irrigation includes binging water in with wells, pipes, canals, or sprinklers.

Kashkul: A Persian word for a beggar's bowl. Kashkuls are typically oval or boat-shaped and made of coco-de-mer shell, metal, or wood. Dervishes (Sufi Muslim mystics), who had given up their worldly possessions, would carry them to collect alms.

Glossary

Land degradation: When the quality of land deteriorates. There are many causes for land degradation, including pollution, deforestation, and extreme weather, like drought.

Pandemic: An outbreak of infectious disease over a wide geographical area, spreading across several countries or continents, usually affecting many people.

Poachers: People who capture and kills wild animals illegally, as well as people who harvest wild plants illegally.

Rural: A word that describes the area outside of cities and towns.

Sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable Development Goals (SDGs): In 2015, the *United Nations* adopted the Sustainable Development Goals (SDGs) – a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030. There are 17 SDGs. They balance social, economic, and environmental sustainability and are interconnected. The SDGs are also known as the **Global Goals**.

United Nations: An international organization founded in 1945. Currently made up of 193 Member States, it is where the nations of the world gather to discuss common problems and find shared solutions that benefit all of humanity.

Videos





The Global Goals YouTube Channel

This channel features short videos about the United Nations Sustainable Development Goals (SDGs), in multiple languages, including French. There are playlists for each of the 17 Sustainable Development Goals. Videos feature live action, animation, or a combination of both. Some videos feature celebrity appearances, including Emma Watson, Serena Williams, and Malala Yousafzai.

The Global Goals Goal 15 – Life on Land

This playlist features short videos about United Nations Sustainable Development Goal (SDG) 15, Life on Land.





Toolkit Tutorial Video

To make the most of this toolkit, you can watch this short tutorial video which provides an overview of how best to use this toolkit in your classroom.



Artefact Video: Kashkul (Beggar's Bowl)

This is a video about the Kashkul (Beggar's Bowl), providing important historical context about the artefact.



Avelino's Story: How to Harvest Hope in a Changing Climate (4:29)

This Aga Khan Foundation Canada (AKFC) film is set in Impiri, Mozambique. It features Avelino Siquia, a farmer. Avelino learns and practices farming techniques that produce more food, and combines his harvest with other farmers, which attracts more buyers.



Water and sustainable land use in the Wakhan Valley (9:14)

This film from the United Nations University shares more about the challenges faced by the farmers in Ishkashim, and how they overcame those challenges to find success.



UN Human Rights: Conservation as a pretext to evict Indigenous peoples (2:13)

This video features Victoria Tauli Corpuz, Special Rapporteur on Indigenous Peoples rights. Indigenous people around the world have been removed from their lands in the name of conservation, when they are the best protectors of the lands on which they live. Victoria advocates for Indigenous leadership and co-management of protected areas.

Videos



Indigenous Voices

This playlist features Indigenous people in Canada, who are leading environmental conservation initiatives.



Nature Lives Here

This playlist features student-friendly videos about biodiversity within the Canadian context.



<u>Netflix Series – Rotten</u>

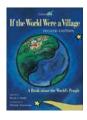
Suitable for secondary school audiences, this documentary series explore food, the food supply chain, and controversy at the heart of foods people eat.



Netflix Series – Down to Earth

This documentary series features Zac Efron, travelling around the world with wellness expert, Darin Olien. Together they explore healthy, sustainable ways of living.

Publications



Clickable thumbnails

If the World Were a Village

By: David J. Smith | Kids Can Press (32 pages)

This best-selling advanced picture book is a classic, translated into 17 languages. It imagines the world's population as a village of 100 people. In an easy-to-grasp way, it explores the statistical breakdown of where people live, what languages they speak, religion, education, money, access to food and water, and more.



Learning at the Aga Khan Museum: A Curriculum Resource Guide for Teachers Grade One to Eight

By: Patricia Bentley, Ruba Kana'an, et al | (160 pages)

This free, downloadable resource features lesson plans and activities for primary, junior, and intermediate learners. Lessons and activities explore paintings, three-dimensional objects, and performing arts, making cross-curricular connections to dance, drama, music, visual arts, language arts, math, science, and social studies.



We Have a Dream: Meet 30 Young Indigenous People and People of Colour Protecting the Planet

By: Dr. Mya-Rose Craig | Magic Cat Publishing (60 pages)

This illustrated book profiles 30 young people from around the world who are actively work on issues around wildlife conservation, clean water, air pollution, plastic waste, climate justice, and more.



United Nations Declaration on the Rights of Indigenous Peoples

By: United Nations | (18 pages)

Adopted by the General Assembly on September 13, 2007, The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) establishes minimum standards for the survival, dignity, and well-being of indigenous peoples around the world. It also supports their right to self-determination; spirituality; language; lands; territories; resources; and free, prior, and informed consent.



Know Your Rights: United Nations Declaration on the Rights of Indigenous Peoples for Indigenous Adolescents

By: Global Indigenous Youth Caucus, Secretariat of the Permanent Forum of Indigenous Issues, and Unicef (40 pages)

This document is a youth-friendly version of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).



We Rise Together – Indigenous Circle of Experts' Report and Recommendations (112 pages)

Published in Canada in March 2018, this report shares recommendations and case studies around the creation of Indigenous Protected and Conserved Areas (IPCAS) – lands and waters where Indigenous laws, governance, knowledge systems, language and culture play the primary role in protecting and conserving ecosystems.

Websites

Clickable thumbnails



The Global Goals

This website was designed to promote the United Nations Sustainable Development Goals (SDGs) to end extreme poverty, fight inequality and injustice, and fix climate change. It includes information about the 17 goals and campaigns from around the world, news, resources, ways to take action, and lesson plans and activities.

SUSTAINABLE GOALS

United Nations Sustainable Development Goals

Goal 15: Life on Land. This webpage features a subject brief, infographics, point-form facts and figures, a list of the 2030 targets, and links to reliable resources.



SDG Tracker – Life on Land

This webpage is a free, open-access publication that tracks progress towards the Global Goals. It features consolidated statistics from the United Nations and other international organizations, clickable and customizable charts, maps, and tables.



Aga Khan Museum Collection

Here you can browse the Aga Khan Museum's collection of objects from Muslim civilizations across time and geography.



t Gouvernement du Canada <u>Government of Canada: Sustainable Development Goals Data Hub</u> Hosted by Statistics Canada, this is the central place for tracking Canada's progress towards the 17 Sustainable Development Goals (SDG) on a global level.



Canadian Indicator Framework (CIF) for the Sustainable Development Goals Data Hub Hosted by Statistics Canada, this site features the 17 Sustainable Development Goals (SDGs), Canadian Ambitions, Targets, related data and charts.



conservation through reconciliation partnership

Conservation Through Reconciliation Partnership

This is a seven-year initiative, bringing together over 30 leaders from Indigenous communities, environmental organizations, academia, and government, who are committed to supporting Indigenous-led conservation across Canada.



Indigenous Leadership Initiative

The Indigenous Leadership Initiative is "dedicated to strengthening Indigenous Nationhood and Indigenous leadership on the land." With a focus on Canada, this website features a blog, videos, publications, and more.

Websites





Saskatchewan Council for International Cooperation (SCIC)

Online Education Resources SDG 15: Life Land. This webpage features lessons and activities that support the goal of taking care of life on land, including a resource guide from the David Suzuki Foundation and a way to explore field journaling.



Canadian Wildlife Federation

The Canadian Wildlife Federation has a mission to conserve Canada's wildlife and habitats. This website features information about its work in lakes and rivers, coasts and oceans, forests and fields, and endangered species. There are educational resources, including activities, encyclopedias, games, and videos.



World Wildlife Fund: Sustainable Agriculture

This website features the video: "Change the Way You Think About Food" — environmental challenges associate with agriculture, profiles of top commodities (beef, soy, palm oil, sugarcane, dairy, and cotton), and sustainable agriculture stories.



Google Earth: I am Water

Take a trip with Google Earth to explore the Amazon rainforest and Amazon River basin. Learn how the forest contributes to the water cycle and the effects of deforestation.

Curriculum Connections Across Canada + International Baccalaureate (IB)

Alberta

Grade 6	Art • Reflection						
Grade 7	Art • Encounters						
Grade 8	Art • Encounters						
Grade 9	Art • Encounters						
Grade 10	Art 10 • Encounters	Art 11 • Appreciation	Social Studies 10-1 • Perspectives on Globalization	Social Studies 10-2 • Living in a Globalizing World			
Grade 11	Art 20 • Encounters		Art 21 • Appreciation				
Grade 12	Art 30 • Encounters		Art 31 • Appreciation				



Curriculum Connections Across Canada + International Baccalaureate (IB)

British Columbia

Grade 6	Arts Education • Exploring and Creating • Reasoning and Reflecting	1	 Social Studies Global poverty and inequa structure and gender International co-operation 	ality issues, including class and responses to global issues
Grade 7	Arts Education • Exploring and Creating • Reasoning and Reflecting]		cular geographic challenges ng climates, landforms, and
Grade 8	Arts Education • Exploring and Creating • Reasoning and Reflecting	1	Social Studies Changes in population and 	d living standards
Grade 9	Arts Education • Exploring and Creating • Connecting and Expanding	ng	Social Studies Global demographic shifts migration and population 	. .
Grade 10	Arts StudioReason and ReflectCommunicate and Document	 Studio Arts 2D Reason and Reflect Communicate and Document Connect and Expand 	 Studio Arts 3D Reason and Reflect Communicate and Document Connect and Expand 	Social Studies Environmental, political, and economic policies
Grade 11	 Arts Studio Explore and Create Reason and Reflect Communicate and Document 	 Studio Arts 2D Explore and Create Reason and Reflect Communicate and Document Connect and Expand 	Studio Arts 3D • Explore and Create • Reason and Reflect • Communicate and Document	Social Studies Adapted from Grade 12 • Asian Studies: 1850-present • Comparative Cultures • Human Geography • Physical Geography • Social Justice
Grade 12	 Arts Studio Explore and Create Reason and Reflect Communicate and Document Connect and Expand 	 Studio Arts 2D Explore and Create Reason and Reflect Communicate and Document Connect and Expand 	 Studio Arts 3D Explore and Create Reason and Reflect Communicate and Document Connect and Expand 	Social Studies • Asian Studies: 1850-present • Comparative Cultures • Human Geography • Physical Geography • Social Justice



Curriculum Connections Across Canada + International Baccalaureate (IB)

Manitoba

Grade 6	Visual Arts • Connecting • Responding	 Social Studies: Canada: A Country of Change (1867 to Present) Shaping Contemporary Canada (1945 to Present) Democracy, diversity, and the Influence of the Past
Grade 7	Visual Arts • Connecting • Responding	Social Studies: People and Places in the World World Geography • Global Quality of Life • Ways of Life in Asia, Africa, or Australasia • Human Impact in Europe or the Americas
Grade 8	Visual Arts • Connecting • Responding	Social Studies: World History: Societies of the Past • Transition to the Modern World (Circa 500 to 1400) • Shaping the Modern World (Circa 1400 to 1850)
Grade 9	Visual Arts • Connecting • Responding	Social Studies: Canada in the Contemporary World • Canada in the Global Context • Canada: Opportunities and Challenges
Grade 10	Visual Arts • Connecting • Responding	Social Studies: Geographic Issues of the 21 st Century • Geographic Literacy • Natural Resources • Food from the Land • Industry and Trade
Grade 11	Visual Arts • Connecting • Responding	
Grade 12	Visual Arts • Connecting • Responding	Social Studies: Global Issues: Citizenship and Sustainability • Climate Change • Environment • Gender • Health and Biotechnology • Poverty, Wealth, and Power • Social Justice and Human Rights • Sustainable Agriculture



Curriculum Connections Across Canada + International Baccalaureate (IB)

New Brunswick

Grade 6	 Visual Arts Understanding and Connecting Contexts of Time, Place, and Community Perceiving and Responding 	Social Studies 6: World Cultures • An Introduction to Culture • Environment and Culture • Some Elements of Culture • Expressions of Culture • World Issues		
Grade 7	 Visual Arts Understanding and Connecting Cont Perceiving and Responding 	exts of Time, Place, and Community		
Grade 8	 Visual Arts Understanding and Connecting Contexts of Time, Place, and Community Perceiving and Responding 	Social Studies: Atlantic Canada in th	e Global Community	
Grade 9	 Visual Arts Understanding and Connecting Contexts of Time, Place, and Community Perceiving and Responding 	Social Studies: Canadian Identities Students will explore social responsibility 		
Grade 10	Visual Arts Understanding and Connecting Contexts of Time, Place, and Community Perceiving and Responding 			
Grade 11	 Visual Arts Understanding and Connecting Contexts of Time, Place, and Community Perceiving and Responding 			
Grade 12	 Visual Arts Understanding and Connecting Contexts of Time, Place, and Community Perceiving and Responding 	World Issues 120 • Humanity • Interdependence • Geopolitics	Introduction to Environmental Science 120 • Sustainable Development • Investigating Environmental Issues	



Curriculum Connections Across Canada + International Baccalaureate (IB)

Newfoundland and Labrador

Grade 6	 Visual Arts Understanding and Connecting Contexts of Time, Place, and Community Perceiving, Reflecting, and Responding 	Social Studies: World Cultures • An Introduction to Culture • Environment and Culture • Some Elements of Culture • Expressions of Culture • World Issues
Grade 7	 Visual Arts Understanding and Connecting Contexts of Time, Place, and Community Perceiving, Reflecting, and Responding 	Social Studies: Empowerment Introduction Economic Empowerment
Grade 8	 Visual Arts Understanding and Connecting Contexts of Time, Place, Perceiving and Responding 	and Community
Grade 9	Visual Arts • Design • Cinematic Arts	
Grade 10	 Visual Arts 1202 Understanding and Connecting Contexts of Time, Place, and Community Perceiving, Reflecting, and Responding 	 Social Studies 1201/1202 Power, Active Citizenship, and Change Individual Rights and the Common Good
Grade 11	 Visual Arts 2202 Understanding and Connecting Contexts of Time, Place, and Community Perceiving, Reflecting, and Responding 	Social Studies 2201/2202 • Conflict, Cooperation, and Change
Grade 12	 Visual Arts 3202 Understanding and Connecting Contexts of Time, Place, and Community Perceiving, Reflecting, and Responding 	Social Studies 3201 • Quality of Life • Political Economy • Population Change • Human-Environmental Interaction



Curriculum Connections Across Canada + International Baccalaureate (IB)

Nova Scotia

Grade 6	Visual Arts 6 • Expression		Social Studies 6: W • An Introduction to • Environment and • Some Elements o • Expressions of Cu • World Issues	o Culture Culture f Culture		
Grade 7	Visual Arts 7 • Communicating Meaning • Culture and Identity					
Grade 8	Visual Arts 8 • Communicating Meaning • Culture and Identity		Social Studies 8: A Changing Canadian Society Forms of Advocacy Causes of a Current Issue Impacts of a Current Issue Effectiveness of Advocacy 			
Grade 9	Visual Arts 9 • Understanding and Connecting Contexts of Time, Place, and Community • Perceiving and Responding		Citizenship • Engaged Citizenship • Global Citizenship			
Grade 10	 Visual Arts 10 Understanding and Connecting Contexts of Time, Place, and Community Perceiving and Responding 		Geography 10History 10• Geographic Perspective• Religion and Civilizations• Land Environment• Religion and Civilizations• Atmospheric Environment• Spaceship Earth		and Civilizations	
Grade 11	Visual Arts 11 • Understanding and Connecting Contexts of Time, Place, and Community • Perceiving and Responding		Advanced Visual Arts 11Geography of Canada 11• Understanding and Connecting Contexts of Time, Place, and Community• Global Links• Perceiving and Responding• Mathematical Contexts			
Grade 12	Visual Arts 12 • Understanding and Connecting Contexts of Time, Place, and Community • Perceiving and Responding	• Under Conne Time, Comm	ving and	Global/Advance Global Geograph • Planet Earth • Population • Resources and Commodities		History/Advanced Global History 12 • The Challenge of Economic Disparity • The Pursuit of Justice • Societal Change



Curriculum Connections Across Canada + International Baccalaureate (IB)

Northwest Territories

Grade 6	Visual Arts: Identity Critical/Responsive Cultural/Historical 			
Grade 7	Visual Arts: Place Critical/Responsive Cultural/Historical 			
Grade 8	Visual Arts: Social Issues Critical/Responsive Cultural/Historical 		Social Studies The Changing World 	
Grade 9	Visual Arts: Taking Action Critical/Responsive Cultural/Historical 			
Grade 10	Art 10 • Encounters	Art 10 • Appreciation	Social Studies 10-1 • Perspectives on Globalization	Social Studies 10-2Living in a Globalizing World
Grade 11	Art 20 • Encounters		Art 21 • Appreciation	
Grade 12			Art 21 • Appreciation	



Curriculum Connections Across Canada + International Baccalaureate (IB)

Nunavut

Grade 6	
Grade 7	
Grade 8	Social Studies • The Changing World
Grade 9	
Grade 10	
Grade 11	
Grade 12	



Curriculum Connections Across Canada + International Baccalaureate (IB)

Ontario

Grade 6	Visual Arts Reflecting, Responding, and Exploring Forms and Culture 	, .	Social Studies People and Environments: the Global Community 	Canada's Interactions with		
Grade 7	Visual Arts Reflecting, Responding, and Exploring Forms and Cultur 		 Social Studies Physical Patterns in a Changing World Natural Resources Around the World: Use and Sustainability 			
Grade 8	Visual Arts Reflecting, Responding, and Exploring Forms and Cultur 		 Social Studies Global Settlement: Patterns and Sustainability Global Inequalities: Economic Development and Quality of Life 			
Grade 9	Visual Arts AVI10 • Reflecting, Responding, and Analyzing					
Grade 10	Visual Arts AVI20Reflecting, Responding, and Analyzing					
Grade 11	Visual Arts AVI30/M Reflecting, Responding, and 	d Analyzing	Gender Studies HSG3M			
Grade 12	Visual Arts AVI4E/M • Reflecting, Responding, and Analyzing Equity and Social Justice: From Theory to Practice HSE4M		World Cultures HSC4M	World Issues: A Geographic Analysis CGW4C/U		
	World Geography:The Environment andUrban Patterns andResource ManagementPopulation Issues CGU4MCGR4M		Living in a Sustainable Worl	d CGR4E		



Curriculum Connections Across Canada + International Baccalaureate (IB)

Prince Edward Island

Grade 6	Visual Arts • Reflecting, Responding, and Analyzing • Exploring Forms and Cultural Contexts	Social Studies: World Cultures • Citizenship, Power, and Governance • People, Place, and Environment • Culture and Diversity • Interdependence
Grade 7	 Visual Arts Understanding and Connecting Contexts of Time, Place, and Community Perceiving, Reflecting, and Responding 	Social Studies: Empowerment • Introduction to Empowerment • Economic Empowerment
Grade 8	 Visual Arts Understanding and Connecting Contexts of Time, Place, Perceiving, Reflecting, and Responding 	and Community
Grade 9	 Visual Arts Understanding and Connecting Contexts of Time, Place, and Community Perceiving, Reflecting, and Responding 	Social Studies: Interdependence – Atlantic Canada in the Global Community • Introduction • Culture in the Global Community • Environment in the Global Community • Human Rights in the Global Community • Citizenship in the Global Community
Grade 10	 Visual Arts 401A Understanding and Connecting Contexts of Time, Place, and Community Perceiving, Reflecting, and Responding 	Canadian Studies 401A • Canada's Global Connections
Grade 11	 Visual Arts 501A Understanding and Connecting Contexts of Time, Place, and Community Perceiving, Reflecting, and Responding 	Global Studies 521/531APhysical Patterns of the WorldCultural Patterns of the World
Grade 12	 Visual Arts 601/621A Understanding and Connecting Contexts of Time, Place, and Community Perceiving, Reflecting, and Responding Message/Voice Unit MV12.4 demonstrate an understanding of how their artwork can support the values and principles of sustainable development in our world 	 Global Studies 621/631A What is a Global Issue? What are the Issues? Active Citizenship – What Can I Do?



Curriculum Connections Across Canada + International Baccalaureate (IB)

Quebec

Grade 6	 Visual Arts Competency 3: To appreartistic objects 	ciate works of art, traditional	 Social Sciences: Geograp Competency 3: To be op and their territories 	hy en to the diversity of societies	
Grade 7	 Visual Arts Competency 3: Apprecia objects from world's artistication 	ites works of art and cultural stic heritage	 Geography Competency 3: Constructs consciousness of global citizenship 		
Grade 8	 Visual Arts Competency 3: Apprecia objects from world's artis 	ites works of art and cultural stic heritage	 Geography Competency 3: Constructs consciousness of global citizenship 		
Grade 9	Visual Arts • Competency 3: Apprecia	ites images	GeographyCompetency 3: Constructs consciousness of global citizenship		
Grade 10	Visual Arts • Competency 3: Apprecia	ites images	GeographyCompetency 3: Constructive citizenship	ts consciousness of global	
Grade 11	Visual ArtsGeography• Competency 3: Appreciates images• Competency 3: Constructs consciousness of global citizenship		Cultural Geography African area Indian area 	The Contemporary WorldEnvironmentPopulationWealth	
Grade 12	CÉGEP				



Curriculum Connections Across Canada + International Baccalaureate (IB)

Saskatchewan

Grade 6	Visual Arts: Identity • Critical/Responsive • Cultural/Historical	Social Studies Canada and Our Atlantic Neighbours
Grade 7	Visual Arts: Place • Critical/Responsive • Cultural/Historical	Social Studies Canada and Our Pacific and Northern Neighbours
Grade 8	Visual Arts: Social Issues Critical/Responsive Cultural/Historical 	Social Studies The Individual in Canadian Society
Grade 9	Visual Arts: Taking Action Critical/Responsive Cultural/Historical 	Social Studies The Roots of Society
Grade 10	Visual Arts • Critical/Responsive • Cultural/Historical	Geography • Climate Regions and Their Effects • Economic Geography • Population
Grade 11	Visual Arts • Critical/Responsive • Cultural/Historical	Social StudiesGeography• Human Rights• Population• Environment• Wealth and Poverty
Grade 12	Visual Arts • Critical/Responsive • Cultural/Historical	Social StudiesGeography• Globalization• The Geography of Population



Curriculum Connections Across Canada + International Baccalaureate (IB)

Yukon

Grade 6	Arts EducationExploring and CreatingReasoning and Reflecting		 Social Studies Global poverty and inequality issues, including class structure and gender International co-operation and responses to global issues 	
Grade 7	Arts EducationExploring and CreatingReasoning and Reflecting		 Social Studies Human responses to particular geographic challenges and opportunities, including climates, landforms, and natural resources 	
Grade 8	Arts EducationExploring and CreatingReasoning and Reflecting		Social StudiesChanges in population and living standards	
Grade 9	Arts EducationExploring and CreatingConnecting and Expanding		 Social Studies Global demographic shifts, including patterns of migration and population growth 	
Grade 10	Arts StudioReason and ReflectCommunicate and Document	 Studio Arts 2D Reason and Reflect Communicate and Document Connect and Expand 	 Studio Arts 3D Reason and Reflect Communicate and Document Connect and Expand 	Social Studies • Environmental, political, and economic policies
Grade 11	Arts StudioExplore and CreateReason and ReflectCommunicate and Document	 Studio Arts 2D Explore and Create Reason and Reflect Communicate and Document Connect and Expand 	Studio Arts 3D • Explore and Create • Reason and Reflect • Communicate and Document	Social Studies Adapted from Grade 12 • Asian Studies: 1850-present • Comparative Cultures • Human Geography • Physical Geography • Social Justice
Grade 12	 Arts Studio Explore and Create Reason and Reflect Communicate and Document Connect and Expand 	 Studio Arts 2D Explore and Create Reason and Reflect Communicate and Document Connect and Expand 	 Studio Arts 3D Explore and Create Reason and Reflect Communicate and Document Connect and Expand 	Social Studies • Asian Studies: 1850-present • Comparative Cultures • Human Geography • Physical Geography • Social Justice



Curriculum Connections Across Canada + International Baccalaureate (IB)

International Baccalaureate (IB)

Grade 6	Middle Years Programme (MYP)	
Grade 7	Arts Individuals and Societies	
Grade 8		
Grade 9		
Grade 10	Diploma Programme (DP)	
Grade 11	Visual Arts, SL/HL Geography, SL/HL	
Grade 12	 Global Politics, SL/HL Social and Cultural Anthropology, SL/HL Environmental Systems and Societies, SL 	



"ActNow for Zero-Waste Fashion." *United Nations Sustainable Development Goals.* Accessed 8 October 2021. http://www.un.org/sustainabledevelopment/blog/2019/08/actnow-for-zero-waste-fashion/

"Avelino's story: How to harvest hope in a changing climate." *YouTube*, uploaded by Aga Khan Foundation Canada, 6 August 2021. Accessed 20 September 2021. http://www.youtube.com/watch?v=59iCOfmSaB4&list=PLfYgWnafSUQbavXOm7a6bl9bWWi8RINDv&index=3

"Beggar's Bowl (Kashkul)." *Aga Khan Museum*. Accessed 30 September 2021. https://www.agakhanmuseum.org/collection/artifact/beggars-bowl-kashkul-akm640

Butler, Rhett A. "Amazon Destruction." *Mongabay*. Accessed 8 October 2021. https://rainforests.mongabay.com/amazon/amazon_destruction.html

"Canada's Conserved Areas." *Government of Canada: Environment and natural resources*. Accessed 30 September 2021. https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/conserved-areas.html

"Caring connections: the power of eHealth." *Aga Khan Foundation Canada*. Accessed 8 October 2021. http://www.akfc.ca/our-work/ehealth/

"Copenhagen (CPH) 2025 Climate Plan." *The City of Copenhagen*. Accessed 20 September 2021. https://international.kk.dk/carbon-neutral-capital

Dolski, Jaclyn. "Reaching the most vulnerable." *Aga Khan Foundation Canada*. Accessed 8 October 2021. https://www.akfc.ca/our-work/reaching-the-most-vulnerable/

"Double coconut: The largest seed in the world." *Kew Royal Botanic Gardens*. Accessed 30 September 2021. https://www.kew.org/read-and-watch/double-coconut-largest-seed-in-the-world

Eysenbach, G. "What is e-health?." *Journal of medical Internet research* vol. 3,2 (2001): E20. Accessed 9 December 2021. https://www.jmir.org/2001/2/e20/

"Feeding a hunger for solutions in rural Tajikistan." *Aga Khan Foundation Canada*. Accessed 8 October 2021. https://www.akfc.ca/wp-content/uploads/2017/07/AKFC_InBriefReport_Tajikistan_FINAL.pdf

"Goal 6: Clean Water and Sanitation." *United Nations Sustainable Development Goals*. Accessed 30 September 2021. https://www.un.org/sustainabledevelopment/water-and-sanitation/

"Goal 15 – Life on Land." Government of Canada: Canadian Indicator Framework for the Sustainable Development Goals Data Hub. Accessed 30 September 2021. https://sdgcif-data-canada-oddcic-donnee.github.io/15/

"Goal 15: Life on Land." *United Nations Sustainable Development Goals*. Accessed 30 September 2021. https://www.un.org/sustainabledevelopment/biodiversity/

Sources

Heggie, Jon. "Can the Colorado River keep on running?" *National Geographic*, 3 August 2020. Accessed 20 September 2021. <u>https://www.nationalgeographic.com/science/article/partner-content-colorado-river-preserving-stressed-water-resources</u>

"Indigenous leadership and initiatives." *Government of Canada: Environment and natural resources*. Accessed 17 February 2022. https://www.canada.ca/en/environment-climate-change/services/nature-legacy/indigenous-leadership-funding.html

"In Focus: Climate action by, and for, women." *UN Women*. Accessed 21 November 21. https://www.unwomen.org/en/news/in-focus/climate-change

Kimmerer, Robin Wall. *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants.* Milkweed Editions, 2013.

"Looking After 'Bluey': The Australian Crab that Became and Icon." *Marine Stewardship Council*. Accessed 20 September 2021. http://peel-harvey-crab-stories.msc.org/

"Nearly Half the World Lives on Less than \$5.50 a Day." *The World Bank*. Accessed 19 November 2021. https://www.worldbank.org/en/news/press-release/2018/10/17/nearly-half-the-world-lives-on-less-than-550-a-day

"No Poverty: Why It Matters." *United Nations Sustainable Development Goals*. Accessed 18 November 2021. https://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/1_Why-It-Matters-2020.pdf

"Nuts for coco de mer: islanders rally to save the world's biggest seed." *The Guardian*. Published 5 April 2021. Accessed 30 September 2021. https://www.theguardian.com/environment/2021/apr/05/coco-de-mer-islanders-rally-to-save-worlds-biggest-seed-ace

"Palm oil and biodiversity." *International Union for Conservation of Nature (IUCN): Issues Brief.* Accessed 20 September 2021. https://www.iucn.org/resources/issues-briefs/palm-oil-and-biodiversity

"Pasto-Mocoa: Driving Better Roads." *World Wildlife Fund*. Accessed 7 October 2021. https://www.wwf.org.uk/what-we-do/projects/tackling-unsustainable-practices-amazon

"Pollution in the Great Lakes." *Canadian Geographic*. Accessed 19 November 2021. https://www.canadiangeographic.ca/article/pollution-great-lakes

"Powering the Future with SuryaHurricanes." *SEED: Promoting Entrepreneurship for Sustainable Development.* Accessed 20 September 2021. https://www.seed.uno/enterprise-profiles/powering-the-future-with-suryahurricanes

"Rice & Carry." *Lanka Upcycles*. Accessed 8 October 2021. https://www.lankaupcycles.com/riceandcarry



"The Amazon." *World Wildlife Fund*. Accessed 7 October 2021. https://www.wwf.org.uk/where-we-work/amazon

Treasures of the Aga Khan Museum: Masterpieces of Islamic Art. Nicolaische Verlags-buchhandlung GmbH, Berlin and Berliner Festspiele, 2010.

"Water and Sustainable Land Use in the Wakhan Valley." *Our World: Brought to you by United Nations University.* Accessed 21 November 21. https://ourworld.unu.edu/en/water-and-sustainable-land-use-in-the-wakhan-valley

"Women, Gender Equality and Climate Change." *United Nations Women Watch*. Accessed 21 November 21. https://www.un.org/womenwatch/feature/climate_change/downloads/Women_and_Climate_Change_Factsheet.pdf

Zielinski, Sarah. "The Colorado River Runs Dry." *Smithsonian Magazine*, October 2010. Accessed 20 September 2021. <u>https://www.smithsonianmag.com/science-nature/the-colorado-river-runs-dry-61427169/</u>

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