

Learning Outcomes

Students will:

- ✦ Discover and evaluate climate change solutions.
- ✦ Distinguish between “mitigation” and “adaptation” strategies for climate change.
- ✦ Reflect on the impact of climate change in their community.
- ✦ Outline their initial ideas for their Climate Innovation Challenge project.

Essential Question



- ✦ Why is it crucial to include both adaptation and mitigation in a holistic climate solution?
- ✦ How might climate change affect your life in the future and how do you want to address this?
- ✦ What are some valuable lessons we can learn from Indigenous-led climate solutions?
- ✦ How do you want to address climate change in your community?

Note to Teacher



- ✦ This lesson is designed to equip students with the necessary knowledge and understanding of adaptation and mitigation strategies for addressing climate change, laying the groundwork for their CIC projects. We give examples of Traditional Ecological Knowledge (TEK) and practices addressing climate change mitigation and adaptation efforts to reflect how world view and culture play a role in the choices we make and the solutions we devise.
- ✦ Supplemental resources include an exercise related to [Seasonal Rounds and ecological calendars](#). These calendars tell a story of when to plant corn, gather wild turnips, pick berries, hunt caribou, collect sap from maple trees (sugarbushing), and harvest salmon. They also describe seasonal phenomena like solar and lunar cycles, bird migration, the last snowfall, the first rain, and the scents of blooming flowers.

Lesson 2 Handouts



- ◆ [Key Terms Worksheet](#)
- ◆ [Key Terms Worksheet - Answer Sheet](#)
- ◆ [Common Ground between Indigenous Knowledge Systems and Western Science](#)
- ◆ Supplemental resource: [Seasonal Rounds and ecological calendars](#)

Classroom Discussion and Activities

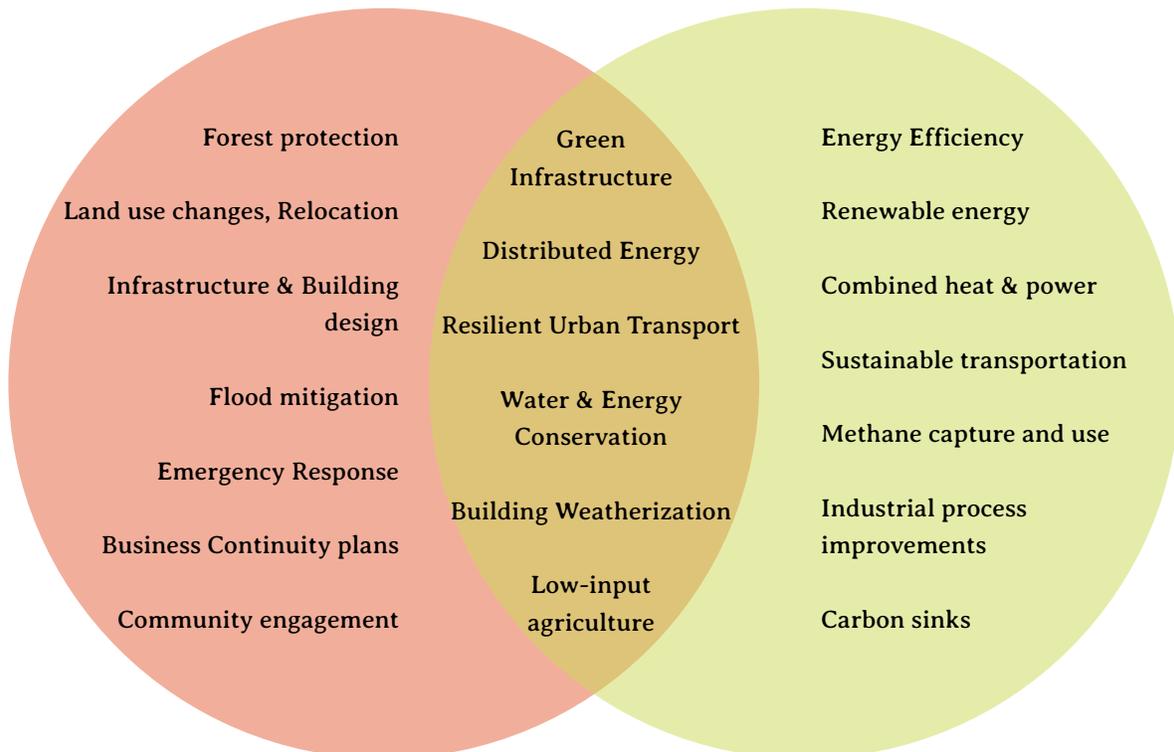


- ◆ **Defining Terms, Venn Diagram Activity** (15 minutes)
 - ◆ Watch CAVU's video "[Mitigation & Adaptation Strategies](#)" (2:10)
 - ◆ Venn Diagram Activity
 - ◆ On a whiteboard or large sheet of paper, draw a large Venn diagram.
 - ◆ One circle will eventually be labeled "adaptation" and one as "mitigation." Do not label them on the whiteboard right away.
 - ◆ Ask the class, "How do we respond to climate change?" Encourage them to recall solutions from the videos they've watched.
 - ◆ Ask students to provide their own ideas. As they provide suggestions, write each in the designated part of the diagram.



Green Resilience

Adaptation & Mitigation Synergies



***Teacher's note on next page regarding this activity.**

Teacher's Note

Some common suggestions include recycling, driving less, and using less or renewable energy, all of which would be placed in the mitigation circle. Suggestions for adaptation strategies include rain catchment systems, land use changes, infrastructure or community response protocols, which would be placed in the adaptation circle. Planting trees would fall into the overlapping part of the circle (because it both sequesters carbon and has local cooling and habitat benefits).

- ◆ When you have received a satisfactory number of suggestions, proceed to label the circles. As you label them, provide the definitions of the following terms:

- ◆ **"Mitigation"** is the action of reducing the severity, seriousness, or painfulness of something. In relation to climate change, "mitigation" is reducing the amount of greenhouse gasses in the atmosphere, either by reducing emissions (i.e., driving less) or pulling the existing greenhouse gasses out of the atmosphere. (i.e., planting trees, recycling, and/or storing carbon underground).
- ◆ **"Adaptation"** is changing to meet a new situation or set of circumstances. Animals and plants can adapt in the short or long term by changing their physiology or behavior. Humans have the benefit of being able to predict future circumstances and can adapt even before changes happen. In relation to climate change, "adaptation" refers to adjustments in ecological, social, or economic systems in response to climate change impacts. (i.e. rain catchment, land use changes, and/or community response protocols)
- ◆ Given these definitions, prompt the students to brainstorm other climate change responses they know about. Have them write these responses on sticky notes, then place them where they ought to be on the Venn diagram. Draw their attention to the overlapping section of the Venn Diagram, and get them thinking about actions that are both mitigation and adaptation.

- ◆ **Key Terms Exercise** (20 minutes)

- ◆ To ensure that students are prepared to create a CIC project, they must have a firm understanding of the differences between climate impacts (the ways that climate change affects our world), adaptation strategies (how to prepare for climate impacts) and mitigation strategies (how to reduce the rate of warming). This [handout](#) provides an opportunity to practice that skill.
 - ◆ If students are familiar with Kahoot, have them participate in a fun, interactive game that delineates the difference between these key terms.
 - [Key Terms Kahoot Exercise](#)

- ◆ **Indigenous led solutions to climate change** (25 minutes)
 - ◇ Important background information to consider sharing before exploring the video examples:

People engage in mitigation and adaptation approaches based on their world view, history, and cultural practices. The UN, and other world governing bodies, are recognizing the need to [address global challenges with Traditional Ecological Knowledge](#). Acknowledging the value of Indigenous knowledge and practices, as well as involving Indigenous communities in climate change mitigation and adaptation efforts, is crucial for addressing the global climate crisis more effectively and equitably. We must listen and learn from Indigenous-led solutions, respecting their rights and knowledge in climate action and environmental stewardship efforts.
 - ◇ Consider sharing a few examples of Indigenous world views and how Indigenous communities are addressing climate change in their own traditional and cultural ways:
 - ◆ [Holding on to the Corn](#) (5:55)
 - ◆ [Fighting to Keep Mexico’s Floating Farms Alive - YouTube](#) (3:22)
 - ◆ [Affiliated Tribes of NW Indians Tribal Climate Camp in Alaska](#) (3:40)



- ◇ Discussion Questions:
 - ◆ What are some valuable lessons we can learn from Indigenous-led climate solutions?
 - ◆ How do Indigenous communities use both adaptation and mitigation to create climate solutions?
 - ◆ Do you see lessons in how Indigenous-led approaches might influence how you want to address climate change in your community?
- ◇ Activity: [Venn Activity Handout - Finding Common Ground between Indigenous Knowledge Systems and Western Science](#)

Alignment to Standards



- ◆ [CCSS.ELA-LITERACY.CCRA.R.4](#)
 - ◇ Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.