

Grade 6 Science

Earth Systems

Activity 1: Climate Change and Farming Practices

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Activity #1

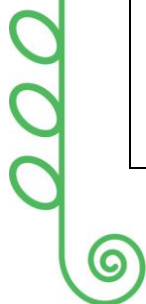
Climate Change and Farming Practices

Duration: 60 minutes

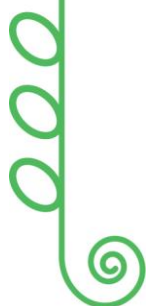
Objective	Overview:
<p>By the end of the activity, students should be able to:</p> <ul style="list-style-type: none"> - Understand the different agricultural practices. - Understand how climate change is affecting our society. - Understand how climate change is impacting agricultural practices 	<p>This activity introduces students to the concept of how climate change is impacting agricultural practices around the world. Students will explore different agricultural practices and how they are changing due to climate change. Through discussions, demonstrations, and hands-on activities, students will gain a deeper understanding of the impact of climate change on our production of food.</p>

Science Guiding Question	Learning Outcome
What relationships exist between climate and changes on Earth?	Students investigate climate, changes in climate, and the impact of climate change on Earth.
Knowledge	<ul style="list-style-type: none"> - Climate change can impact agricultural practices, such as: crop selection, crop production, harvesting periods and yields, irrigation, pest management
Understanding	<ul style="list-style-type: none"> - Climate change over time can affect land, plants, humans, and other animals in a variety of ways.
Skills and Procedures	<ul style="list-style-type: none"> - Discuss agricultural practices impacted by climate change.

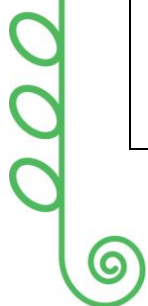
ELA Guiding Question	Learning Outcome
<ul style="list-style-type: none"> - How can text form and structure improve understanding of content? - What relationships can be made between 	<ul style="list-style-type: none"> - Students analyze how text form and structure clarify information and support connecting with self, others, and the world. - Students connect the quality and efficacy of oral communication to oral language skills.



skillful oration and communication content, style, and delivery?	
Knowledge	<ul style="list-style-type: none"> - Texts can have more than one purpose and may have one that stands out. - Reading a variety of texts for enjoyment can support academic development. - Literary text forms can be digital or non-digital and include <ul style="list-style-type: none"> -articles -speeches -hybrids - First Nations, Metis and Inuit communication processes and protocols can preserve shared knowledge and include practices such as <ul style="list-style-type: none"> -ongoing conversations -sharing circles -respectfully acknowledging all voices -waiting to take turns -active listening -focusing on the idea rather than on who gave the idea -ending with consensus
Understanding	<ul style="list-style-type: none"> - Text genres, forms, and structures can enhance and influence the enjoyment and communication of ideas and information. - Oral traditions can enhance relationships and preserve shared knowledge.
Skills and Procedures	<ul style="list-style-type: none"> - Analyse the purpose of a variety of digital or non-digital texts. - Make connections between texts read for enjoyment and academic development. - Examine communication processes and protocols that contribute to the transmission or preservation of knowledge.



Timing	Instructional Element	Student Tasks
Introduction Starting in a Good Way (15 minutes)	<ul style="list-style-type: none"> - Talking Circle Prompt: What have you noticed about the local climate and how it has changed in your lifetime? - Pose the question and ask the student on the left to be the first to respond. The teacher may encounter student responses such as: Warmer, More fires, etc - As the teacher is to respond last, summarize what students have shared and consolidate with what the teacher would like the students to know. Highlight how we will be focusing on the impact of global warming on agricultural practices. - See link below for classroom talking circle guidelines: Talking Circle Pedagogy 	Participate in talking circle
Development Weaving Knowledge (15 minutes)	<ul style="list-style-type: none"> - Small group discussion: - In random groups of three, at vertical non-permanent surfaces (white boards) students will discuss and record their thinking. - Prompt: Teacher displays a variety of pictures such as domestic animals, wild animals, plants, water, Sun and rocks. File: 01 Photo Prompts <ul style="list-style-type: none"> - Teacher asks students to write down how these images have been changing with climate change and how that impacts agriculture. - Teacher will observe and listen to student thinking by visiting the small groups at the student whiteboards. - The teacher can bring the whole group together to highlight the common themes that came up in the small group discussions. - See the links below for more information about thinking tasks, random groupings and vertical non-permanent surfaces in the classroom. - Learn more about the positive impact of small group student-led discussions here. - Building Thinking Classrooms Practices 	<ul style="list-style-type: none"> - Students use white boards to write their understanding. - Students participate in small group discussions. - Students listen to the teacher as a part of the large group discussion.



Independent Work Gathering Knowledge (15 minutes)	<ul style="list-style-type: none"> - Choice Board: Agriculture Practices - Choice Boards require student access to an internet connected device to access the resources. Students work independently to complete the choice board. - If students don't have access to laptops or Chromebooks, they can use their phones to access resources through the scan code version of the provided choice boards. - Choice Boards are built to provide student choice while learning. Students choose one agricultural practice to get to know, one video to watch and one method to share their thinking. - Students will choose one agricultural practice and explain how it has been changed by climate change. The options include: crop selection, crop production, harvesting periods and yields, irrigation, pest management. <p>Helpful Links: Climate Change Impacts - Canada Climate Change Impacts - USA</p> <ul style="list-style-type: none"> - Learn more about the positive impact of providing choice boards to shift from transfer of information to student discovery here. - How to create choice boards for students. 	Students prepare their choice board for their given Earth system factor.
Conclusion: Sharing knowledge (10 minutes):	<ul style="list-style-type: none"> - Invite a few students to share some of their findings about agricultural practices. Display learning maps so students can reflect on their level of understanding. 	If selected, students will present the information that they have found about agricultural practices.