Lesson 3   40 Minutes

Outcomes | Alberta Grade 5 Science Curriculum
- Methods used to predict weather include computer modelling and historical data
- The study of climates across regions helps identify historical patterns and make predictions
- Interpret data about climate

Pre–Flight Checklist
- Device and projector set up. Click through first five screens of https://albertaclimaterecords.com/ to understand how it works. On the screen where you choose your dataset, try any index (kids love to choose) and try "67-year changes" as a starting point.
- Skim the opening paragraph and two paragraphs on chocolate: https://www.rainforest-alliance.org/everyday-actions/5-of-your-favorite-foods-threatened-by-climate-change/
- Organize students into elbow partners; partners they can quickly turn to and share a brief conversation.

Time	Learning Opportunity
1 min	The earth revolves around the sun: fact or opinion? Use your ASL signs. (F) It is lovely outside today: fact or opinion? (O) It is warm/cold today: weather or climate? Use your ASL signs. (W) Over the past 67 years, the average temperature on Earth has increased: weather or climate? (C)
22 min	Today we will look at more of the Climate Game Changers website: https://climategamechangers.ca/student/climate-change-101/ and we will go back to the "Who, What, Why?" section (click). Next, we will spin the globe to find out "Where is Climate Changing" (click). This is a cool tool! (breeze through the intro screens highlighting important points). Does it look like we are going to get facts or opinions here? (F) These are statistics, not debatable, unless you question how they were gathered, and they explain that. (Proceed to dataset choice page and choose one together, maybe by show of hands) We will look at the change in ____ over the past 67-years. (click "Explore" and then double click a few times to zoom in to find your local 10x10km rectangle. Help students understand what they are seeing by asking them questions (e.g., What does the graphic on the right side show us?). Look at the Alberta map for this index. Turn to your elbow partner and tell them what the colour

CPAWS
CANADIAN PARKS AND WILDERNESS SOCIETY
SOUTHERN ALBERTA CHAPTER

Bring Nature Home
Climate Change and Anxiety | Grade 5

Lesson 3| Continued

Time	Learning Opportunity
(cont.)	means in this area (point to a particularly stark area). Give your partner one conclusion from what you see and ask if they agree (e.g., "the area along the Rocky Mountains is cooler than our area because it is a lighter shade of red"). (Try looking at a few different climate indices, mousing over the question mark after each index to define terms and find out who might care) You can explore this tool further on your own if you like. Would this be good for sharing facts or opinions with others? (F)
8 min	Now for the final section of "Who, What, Why?": https://climategamechangers.ca/student/climate-change-101/classroom/ we will pull down the map and find out "Who is responsible?" (click). What do the colours represent on this world map? (Name continents together, then play video). (Pause after 14 seconds "where the people are"). This map represents where the people are, what the heck does that mean? Why does Asia (green) look so distorted? You have 20 seconds to discuss with your elbow partner. (Someone share aloud. Play another two seconds, stop after "where the money is"). What does this tell us about Africa in yellow? (Continue to pause as often as necessary to help students digest info. You may need to pause after each graphic change.) (Pause after 27 seconds "Extracting fossil fuels"). What is a fossil fuel? What does this map show? (Who takes the most fossil fuels out of the ground?) (Pause after 48 seconds "Droughts floods and extreme temperatures." What does this crazy map tell us? (After video, click on Canada, which will highlight Canada in grey. Now the previously mentioned topics are clickable along the top. A legend on the right side will show statistics for Canada for each topic. Discuss as desired.)
8 min	https://climategamechangers.ca/student/climate-change-101/ Now that we have explored "Who, What, Why?", let's move on to "What does it mean for me?". (click) This section looks at the effects of climate change on water, sports, and food. We are going to look at food. (click) The article here talks about five foods, so let's look at chocolate. (Students could choose different food)

CPAWS
CANADIAN PARKS AND WILDERNESS SOCIETY
SOUTHERN ALBERTA CHAPTER

Bring Nature Home
Climate Change and Anxiety | Grade 5

Lesson 3| Continued

Time	Learning Opportunity
(cont.)	Turn to your elbow partner and predict how climate change could affect chocolate. (Share a few.) (Read the opening paragraph aloud, then skip down to the two paragraphs on chocolate, stopping to make various statements: ask for raised hands for fact vs opinion – i.e., Chocolate is essential to happiness – O, etc.) We don't produce chocolate in Canada, turn to your elbow partner and share something that you think we do produce that could be affected by climate change? (Seafood: warming/cooling water, wheat/canola/grains: flooding/drought, cattle…)
1 min	Now that we have talked about food, check out other areas of sports and water on your own if you are interested in how climate change might affect them. https://climategamechangers.ca/student/climate-change-101/ Next time we will look at the last two sections: "Impact on Plants and Animals" and "How is the Landscape Changing".