

Explore the map activity

Name: _____

The climate atlas shows predicted climate change based on two climate scenarios. These can be seen as “more” or “less” climate change in a sliding bar at the the bottom map. “More” Climate change means that it is showing a **High Carbon** scenario, or a “business as usual” scenario. The “Less” climate change option will change the map to show what Canada will look like under reduced carbon emissions.

To start the activity, go to <https://climateatlas.ca/map/canada/> and find **Toronto, ON**. Use the icon (top left of the map) to change settings from displaying “change from recent past” to “average value.” If using a smartphone device, press the up arrow at the bottom of the screen to see the icons/slide bars).

- Find the climate variables needed to fill out the table along the icons at the bottom on the map. Once the variable is found, record values under a “more climate change” scenario for:
 - Recent Past (1976-2005)**
 - Immediate Future (2021-2050)**
 - Near Future (2051-2080)**
 - Change between the recent past and near future** (under the high carbon scenario). This value is given to you on the map but can also be calculated by subtracting the Recent Past value from the Near Future value for each climate variable.

Climate Type	Climate Variable	HIGH Carbon Scenario			Change from recent past to near future?
		Recent past	Immediate future	Near Future	
Hot weather	Very hot days (30°C +)				
Cold weather	Winter days				
Temperature	Mean annual temperature				
Precipitation	Annual Precipitation				
Agriculture	Frost-free season				

- What areas in Canada are the most impacted by these climate variables?
Set the timeline to the Near Future (2051-2080), Use the icon (top left of the map) to change settings from displaying “average value” to “change from recent past.” What regions of Canada are experiencing:

More “Very Hot” days:

Less Winter days:

Higher Mean Annual Temperature:

Higher Annual Precipitation:

Longer Frost-free season: