



## Climate In My Neighborhood

### Learning Goals:

- I know the main sources and sinks of greenhouse gases.
- I can recognize the sources and sinks in my local neighborhood.

### Materials:

- Blank *Climate Factors*
- Blanks *Local Maps* from your school neighborhood, matching the number of groups.
- Tape or sticky tack
- Colouring pens, pencils, or markers.
- A place to display finalized *maps* and *factor sheets*.

**Minds-on:** Students are asked to come up with a list of things that they think might be sources or sinks of greenhouse gases. Consider a think-pair-share approach. List these things on the blackboard.

Explain that today we'll be looking at some sources and sinks for carbon dioxide — the most common greenhouse gas — in our local area. Add any important missing ones, such as lakes, forests, soils, wetlands, etc.

**Lesson:** Explain that students will summarize one factor and do some research on that topic — and then we'll use that information to find sources and sinks in our neighborhood. Have students, in groups of three or four, choose one factor listed above that they think is important for your area. Give students a cut-out blank *climate factor*, and 15 minutes to fill it out. Rotate and encourage students to explore any questions that might arise. Have them tape or pin their factor sheets to the wall, where everyone can access them.

*Give students a body break! Tell them to check out the factors, go for a walk, the bathroom, etc.* Get students to return to their groups. Let students choose a *local map*. Have them colour code their map according to the filled-out *climate factors* — they will have to use the internet to find out exactly what sort of land is in their map. Find a place somewhere to display the maps, preferable somewhere prominent either in their class, or in the hallway.

**Consolidation:** As a class, have students look at the completed maps. Discuss, as a class, what stands out to them: what the main sources are, what the main sinks? What sources/sinks may be relevant, but not included in this map? Have students write a short exit card: which of these factors do they think they themselves might be interested in changing, and why? Assess exit cards both for interest/engagement, and content knowledge.



# QUILLS

Queen's University Indigenous Land-Based Learning STEM  
Queen's University Biological Station

*Materials adapted from:*

- <https://rb.gy/utxot>
- <https://rb.gy/0639c>
- <https://rb.gy/ttv0m>