

GEO-TRACKING & LAND INVESTIGATION AT THE NORTHEAST SWALE PART II: MAPPING

GRADE 6-8

THE IDEA



First, we took students onto the land to look at the land is the first part of this adventure. Students were led by a geologist, a teacher and a lead interpreter from Meewasin to look at the rocks, water and habitat. While investigating students engaged in discussions and hands-on investigation about the land, rocks, water; how they were developed; where they came from; their importance to investigating the land. As the students looked at the land, they found and discussed rocks from the area. They then began to use a GPS to landmark the rocks. We also took pictures of where these rocks were located. This was also done to other interesting landmarks that the students found.

We then returned to the classroom with the data we gathered from the GPS trackers. We used this data to input into a mapping program supplied to the students through the Girls In The Classroom program.

THE PROCESS



Materials: Mapping program such as mapFeeder (contact Deb Shewfelt for more info); computers for students to explore; data from the Swale Part I (GPS data) collected by the students; instruction from mapping program experts with Girls in the Classroom.

The students all logged into the mapping program. GITC experts instructed the students on how to use the data to input into the program. The students then could make maps with different elements.

THE CURRICULUM CONNECTIONS



This lesson was part of a multi-grade project and it was done with grade 6-8 students. These are some of the connections we used.

Grade 6

A. Career Education

1. **CC6.2** Investigate and compile data to explain ways work contributes to individuals and the community.

B. Social Studies Outcomes

1. **DR 6.3** Appraise the strategies human societies have used to orient themselves within time and place in the natural environment.

2. **IN 6.1** Evaluate and represent personal beliefs and values by determining how culture and place influence them.

* These indicators focus on place and how humans interact, impact and/or assess what their role is as citizens regarding their responsibility when living with other organisms.

Grade 7

A. Science Outcomes

1. **EC 7.1** Analyze societal and environmental impacts of historical and current catastrophic geological events, and scientific understanding of movements and forces within Earth's crust. (SI)
2. **EC 7.3** Investigate the characteristics and formation of the surface geology of Saskatchewan, including soil, and identify correlations between surface geology and past, present, and possible future land uses. (DM, SI)
3. **EC 7.3** Investigate the characteristics and formation of the surface geology of Saskatchewan, including soil, and identify correlations between surface geology and past, present, and possible future land uses. (DM, SI)

B. Social Studies Outcomes

1. **DR 7.1** Analyze and use various types of maps (that provide differing perspectives and information for differing purposes) in order to situate current issues in Canada, and in a selection of Pacific Rim and northern circumpolar countries.

C. Language Arts

1. **CR 7.5** Listen critically to understand and analyze oral information and ideas from a wide range of texts (e.g., complex instructions, oral explanations and reports, opinions or viewpoints, messages presented in the media).
2. **CC 7.1** Create various visual, oral, written, and multimedia (including digital) texts that explore identity (e.g., Exploring Thoughts, Feelings, and Ideas), social responsibility (e.g., Taking Action), and efficacy (e.g., Building a Better World)

D. Career Ed

1. **CC 7.2** Analyze the contributions work makes to the individual and their community, including globally.
2. **CC 7.1** Reflect on and express insights about how knowledge and skills learned in school transfer to one's future life and work.

Grade 8

A. Science Outcomes

1. **WS 8.1** Analyze the impact of natural and human-induced changes to the characteristics and distribution of water in local, regional, and national ecosystems. (CP, DM)
2. **WS 8.2** Examine how wind, water, and ice have shaped and continue to shape the Canadian landscape. (DM, SI)

B. Social Studies Outcomes

1. **DR 8.1** Develop an understanding of the significance of land on the evolution of Canadian identity.
2. **RW 8.3** Critique the approaches of Canada and Canadians to environmental stewardship and sustainability.

C. Language Arts

1. **CR 8.1** View, listen to, read, comprehend, and respond to a variety of texts that address identity (e.g., Becoming Myself), social responsibility (e.g., In Search of Justice), and efficacy (e.g., Building a Better World).
2. **CR 8.5** Listen critically to understand, gather information, follow directions, form an opinion, and analyze oral presentations for diverse opinions, presenter's point of view, values, and biases, stereotypes, or prejudices.
3. **CC 8.1** Create various visual, oral, written, and multimedia (including digital) texts that explore identity (e.g., Telling One's Life Story), social responsibility (e.g., Examining the Influence of Popular Culture), and efficacy (e.g., Creating Turning Points).

D. Career Ed

1. **CC 8.1** Examine how a disposition for lifelong learning connects to potential career pathways
2. **CC 8.2** Determine the contributions that work and work alternatives such as volunteerism make to the community and identify their importance to society.

THE ASSESSMENT



1. Have students create a narrative to connect the mapping to the project on the Swale.

THE NEXT STEPS



1. Connect pictures to the mapping.
2. Formulate an interactive map with pictures and written connections to the pictures.
3. Connect with Meewasin to work together to formulate both understanding of the information but also on going usage of the information.