



Building an Iglu

Haydn George 21st Century Lesson Plan GRADEDUC 9102L 650

Interdisciplinary Curriculum:

Inuit Cultural Studies, Math & English Language Arts
Grades 6 - 12

Objectives explain or demonstrate in the mode(s) of your choosing

1. The historical importance of the iglu to the Inuit
2. Understand snow
 - 2.1. for blocks (select, cut, transport, install)
 - 2.2. for packing the joints
3. Iglu hemisphere geometry
 - 3.1. snow blocks & radial lines in the vertical plane
 - 3.2. snow blocks & radial lines in the horizontal plane
4. Create a sharable artifact that represents what is most meaningful to you in the iglu building process.

Materials Needed

1. Snow knife
2. Wood saw
3. Shovel
4. Iglu snow 🤔



Online Resources

1. Iglu Building National Film Board *How to Build an Igloo*
<https://kugluktukhighschool.ca/iglu>
2. In the Coppermine Delta Time lapse video from March '18
<https://kugluktukhighschool.ca/iglu>
3. Haydn's Sample Artifact Multimodal reference exemplar ✨
<https://kugluktukhighschool.ca/iglu>
4. Building an Iglu Lesson Plan Paper copies are handed out at our first meeting and are available in the office
<https://kugluktukhighschool.ca/iglu>

Summary of Activity

1. Accommodations are provided as needed based on student needs. For example, not everyone will be physically able to lift the snow blocks due to their weight. We will practice the 4Cs (communication, collaboration, creativity and critical thinking) as we work together in our harsh Arctic environment. ☆
2. The Hook: who would like to spend an afternoon out of class, in temperatures as low as -40 degrees Celsius 🤯, working alongside some of our most skilled elders? Students have expressed an interest in iglu building; they are being withdrawn from their regular Grades 6 to 12 classes.

3. In collaboration with other teachers, we have identified outcomes from Inuit Cultural Studies, Math & English Language Arts; we collaborate to identify and attribute these interdisciplinary objectives based on student artifacts and skills learned.
4. Flipped! Students are assigned **Online Resources 1, 2, 3 & 4** to watch before we go outdoors to build the snow house. These short videos will give students an excellent introduction and overview of the process as well as our lesson plan. A paper copy of this lesson plan is provided at our first iglu meeting. ★
5. Once outdoors, we will be able to focus on the practical application of the skills related to **Objectives 1, 2 & 3**.
 - 5.1. Snow is selected for its consistent density and is cut into blocks 6” thick, 18” high and 30” long.
 - 5.2. The diameter of the base is marked, blocks are laid with vertical edges being radial lines. A spiral is cut after the first row is set. The top horizontal edge is also cut on the radial plane to create the dome (hemisphere) and not a cylinder!
 - 5.3. New snow is used to pack the joints between the blocks.

6. Create a sharable artifact that represents what is most meaningful to you in the iglu building process.

6.1. See #3 for Haydn's exemplar <https://kugluktukhighschool.ca/iglu>

6.2. Use any mode! Students are only limited by their imagination! *

7. The Rating Scale that we co-created is below. We will practice consensus evaluation, meeting with a peer and myself to determine each mark. Students will have time in class to complete their artifact, with staff support. Artifacts are due one week after the outdoor excursion.

Rating / 10	Descriptor		
9	Mastery	Personal meaning of the iglu process is expressed	The 4Cs (communication, collaboration, critical thinking and creativity) are rated for the iglu building experience.
8	Proficient		
7	Intermediate		
6	Beginner		
5	Emerging		

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APA references to course readings (I used symbols so as not to interrupt the flow of the text):

✿ Multimodality is embraced and modelled in this exemplar of a possible artifact. Ryan, Scott and Walsh, (2009) have noted that “various modes of print, image and sound... call upon many meaning making systems and technologies” (p. 478). I have used iMovie to integrate pictures and an audio file recorded on the Voice Memo app.

☆ The 4Cs, communication, collaboration, creativity and critical thinking , are practiced during the iglu building experience (Ontario, 2016, p. 12). We collaborate in the harsh arctic environment to construct the snow house; communication is key as we need to work together to stay warm, mobile and without frostbite. These are quite literally, 21st century competencies that are essential to success.

✿ Flipping! By flipping the background, theory and context students have the basic information they need to participate in iglu building. As Eaton (2017) noted, this has the potential to “increase learners’ motivation, task value and engagement” (p301). Students have reacted positively to visual and auditory modes.

✿ Multiple Modes! Students know that “mobile technologies... provide positive pedagogical affordances” (Lai, 2013, p. 421). Many of us are now regularly connected to our mobile devices. When iglu building in extremely cold temperatures, battery power declines rapidly if devices get cold. We are accustomed to wearing moisture wicking clothing with a pocket close to the chest and then we only remove the device for a few seconds for pictures or videos. All that being noted, mobile devices afford incredible creativity as we can produce and edit movies right in our hands.

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References

Eaton, M. (2017). The flipped classroom. *The Clinical Teacher*, 14(4), 301-302.

Lai, K-W., Khaddage, F., Knezek, G. (2013). Blending student technology experiences in formal and informal learning. *Journal of Computer Assisted Learning*, 29(5), 414-425.

Ontario, Government of, (2016). *21st century learning* (pp.3-14, 16-22, 24-29, 35-38). Retrieved from http://www.edugains.ca/resources21CL/21stCenturyLearning/21CL_21stCenturyCompetencies.pdf

Ryan, J., Scott, A., & Walsh, M. (2010). Pedagogy in the multimodal classroom: an analysis of the challenges and opportunities for teachers. *Teachers and Teaching: Theory and Practices*, 16(4), 477-489.