



Using Inquiry in Social Studies Lessons to Target Environmental Education and Stewardship

Social Studies Inquiry Model

Formulate
Questions

Gather and
Organize

Interpret and
Analyse

Evaluate and
Draw Conclusions

Communicate

Introduction: Balancing Needs and Wants with Environmental Stewardship

This introductory lesson incorporates social studies inquiry (formulating questions; interpreting, analysing and communicating information) through the strategy of a Knowledge Building Circle (KBC) within the context of investigating human needs and wants, activities that satisfy them and the impact on the environment and stewardship. A Knowledge Building Circle is a process of student-led, inquiry-based discussion which affords development, consolidation and extending of established knowledge through reflection and consideration of others' ideas, insights, perspectives and values.

Considerations for Planning

Prior to this lesson, students will need:

- experience working collaboratively in small groups;
- initial understanding of human needs and wants;
- experience participating in Knowledge Building Circles; and,
- understanding of environmental stewardship initiatives; (recycling efforts, reducing greenhouse gas emissions through alternative energy use).

Resources and Materials

chart paper, images of daily life which exemplify human needs and wants

- **BLM 1.1 – Graphic Organizer: Needs, Wants and Human Activities**
- **BLM 1.2 – Knowledge Building Circle**
- **BLM 1.3 – Exit Card: Considering Environmental Impact**

How does this lesson link to Environmental Education?

Students develop strategies which allow them to better understand and appreciate the “dynamic interactions” related to “the dependency of our social and economic systems on...natural systems” and “the positive and negative consequences, both intended and unintended, of the interactions between human-created and natural systems”.

Shaping Our Schools, Shaping Our Future: Environmental Education in Ontario Schools (2007), p. 6

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Lesson: Balancing Needs and Wants with Environmental Stewardship

Collaborative student inquiry through knowledge building discourse develops a deeper understanding of the environmental impact of human choices and commerce.

Learning Goals:

By the end of this lesson students will understand and be able to:

- use elements of the Social Studies Inquiry Model (formulate questions, interpret and analyse information, communicate) to investigate the issues and challenges associated with balancing human needs/wants and activities with environmental stewardship;
- actively participate in a Knowledge Building Circle;
- make connections between human needs, wants and activities and the intended and/or unintended environmental consequences, and;
- address the need for balance between human needs/wants/activities and the resulting environmental impact.

Curriculum Expectations and Concepts of Social Studies Thinking

Grade 4: People and Environments: Political and Physical Regions in Canada

Overall expectation:

- Use the social studies inquiry process to investigate issues and challenges associated with balancing human needs/wants and activities with environmental stewardship in one or more political and/or physical regions of Canada. FOCUS ON: Perspective

Specific expectations:

- Formulate questions to guide investigations into some of the issues and challenges associated with balancing human needs/wants and activities with environmental stewardship in one or more of the political and/or physical regions of Canada.
- Interpret and analyse information and data related to their investigations, using a variety of tools.

Big Idea: Human activities should balance environmental stewardship with human needs/wants.

Framing Questions to Guide the Lesson: What impact can human activities have on the natural environment? How do we find the balance between environmental stewardship and human needs/wants?

Integrated Expectations across Subject Areas

Language: Oral Communication

- Communicate in a clear, coherent manner, presenting ideas, opinions, and information in a readily understandable form.

Science

- Analyze the effects of human activities on habitats and communities.

Relevant Terminology

basic needs, wants, impact, natural environment, environmental stewardship, perspectives

Minds On: Connecting Background Knowledge

Establishing Needs and Wants, and How People Satisfy Them

Large and small group activities (approximately 30 minutes)

- Suggest that students consider basic human needs and wants along with the choices we make to satisfy them.
- Show students images of daily life related to human needs and wants (food, water, shelter, energy, clothing, health care).
- Working in pairs, students identify/discuss needs and wants.
- Post a large version of a cause and effect diagram, network tree, comparative table or other preferred graphic organizer which displays causal information. See **BLM 1.1 – Graphic Organizer: Needs, Wants and Human Activities** for options.
- Invite each pair to contribute examples of needs/wants. Add the information to the graphic organizer.
- Suggest to students that people meet needs and wants in different ways.
- Establish that human activities (the way that we live) are related to our needs/wants. Provide an example: We need food. We could grow our food.
- Ask: What other ways can people satisfy their need for food (buy it at the grocery store, go to a local farmer's market, eat at a restaurant)?
- Within small groups, students generate examples of human activities which correspond to satisfying the remaining needs/wants.
- Organize strategic ability groupings. Indicate that each group will share examples.
- Small groups share ideas.
- Add new information to the graphic organizer as students contribute.

Assessment Tools and Strategies:

Assessment for Learning - Observation/notes, *consider*:

- students' ability to relate human activities to specified needs/wants

Action

Deconstructing the Impact of Human Activities

Small group activity (approximately 20 minutes)

- Model a think aloud strategy to extend the cause/effect concept in the graphic organizer to include the environmental impact of human activities. Select an example from the graphic organizer. For example: We have established that food is a need and that one way we satisfy our need for food is via pizza delivery.....How does our choice to have pizza delivered to our house impact others? The environment? Include perspectives from the Pizza parlour owner, driver of deliveries, customers, others.
- Students continue investigating the impact of our actions in the same small groups. Encourage groups to develop/record any questions that arise from their discussion.
- Circulate and prompt as needed.

Knowledge Building Circle

Large group activity (approximately 20 minutes)

- Students participate in a Knowledge Building Circle (KBC) to consider the impact of human choices/activities on the environment and explore opportunities to reduce their impact. (See **BLM 1.2 – Knowledge Building Circle**)
- Students form a circle (typically seated at the carpet).
- Hand a designated (KBC) object, such as a talking stone or talking stick (indicates turn to speak) to the first student who is sharing.
- Propose as the *initial* points of inquiry for the KBC:
 - How do we balance meeting our needs/wants with taking care of the environment? Do we have a responsibility to the environment?
- One student leads the inquiry by presenting thoughts/insights/questions to the larger group. After each student contributes, he/she passes the KBC object to the next student speaker. Other students follow by contributing their own knowledge/perspectives, agreeing or disagreeing in a respectful way, making connections, comparing or expanding on presented ideas, and/or formulating additional questions.
- Guide/prompt only as needed while students continue to contribute and lead the inquiry process. Note: The teacher is in the role of a facilitator throughout the KBC, not leading the discussion.
- Possible prompts/questions to extend discussion, propose divergent perspectives:
 - How can we use stewardship to reasonably reconcile the impact of satisfying wants vs. needs?

Assessment Tools and Strategies:

Assessment for Learning – throughout the KBC, *consider*:

- students' communication related to environmental stewardship (Is it clear/coherent?);
- students' ability to make connections and build upon others' ideas;
- students ability to incorporate new and relevant terminology (needs/wants, actions, impact, stewardship) throughout the KBC.

See **BLM 1.2 – Knowledge Building Circle** for additional ideas regarding *assessment for* and *assessment as* learning.

Consolidation and Debrief

Reflection - Exit Strategy

Individual activity (approximately 15 minutes)

- Encourage students to think about some of the challenges to meeting our needs and wants while taking care of the environment.
- Distribute **BLM 1.3 – Exit Card: Considering Environmental Impact** to each student.
- Students complete the flow chart on **BLM 1.3**.
- Collect **BLM 1.3 – Exit Card: Considering Environmental Impact** when complete.

Assessment Tools and Strategies

Assessment as Learning – **BLM 1.3 – Exit Card: Considering Environmental Impact**, *consider*:

- student responses incorporate/apply ideas, insights and perspectives gained from participation in the KBC;
- students ability to incorporate new and relevant terminology (needs/wants, actions, impact, stewardship) during the KBC and completion of the Exit Card

Further Opportunities for Learning

Digital Presentations

Additional topics of inquiry/research which may be communicated in a digital presentation:

- How do renewable (and nonrenewable) resources provide for human needs?
- What actions can you take to help meet the basic needs of others in your community?
- Should some people have their wants satisfied when others don't have their needs met?
- How does satisfying our needs/wants (positively or negatively) impact other people (job creation, health/living conditions near a major road)?

Graphic Posters/Glogsters

Students create a graphic poster or Glogster which encourages others to modify the environmental impact of their actions/activities (walk to school when possible, bring reusable containers in school lunches) or which reflects ways that students/families can modify their activities to live in a more sustainable way, while still meeting their needs and wants.

Related Resources and References

Websites

- Ministry of Education
<http://www.edu.gov.on.ca/eng/teachers/enviroed/education.html>
- Ministry of Education
<http://www.edu.gov.on.ca/eng/curriculum/elementary/sshg.html>
- Natural Curiosity
<http://www.naturalcuriosity.ca>

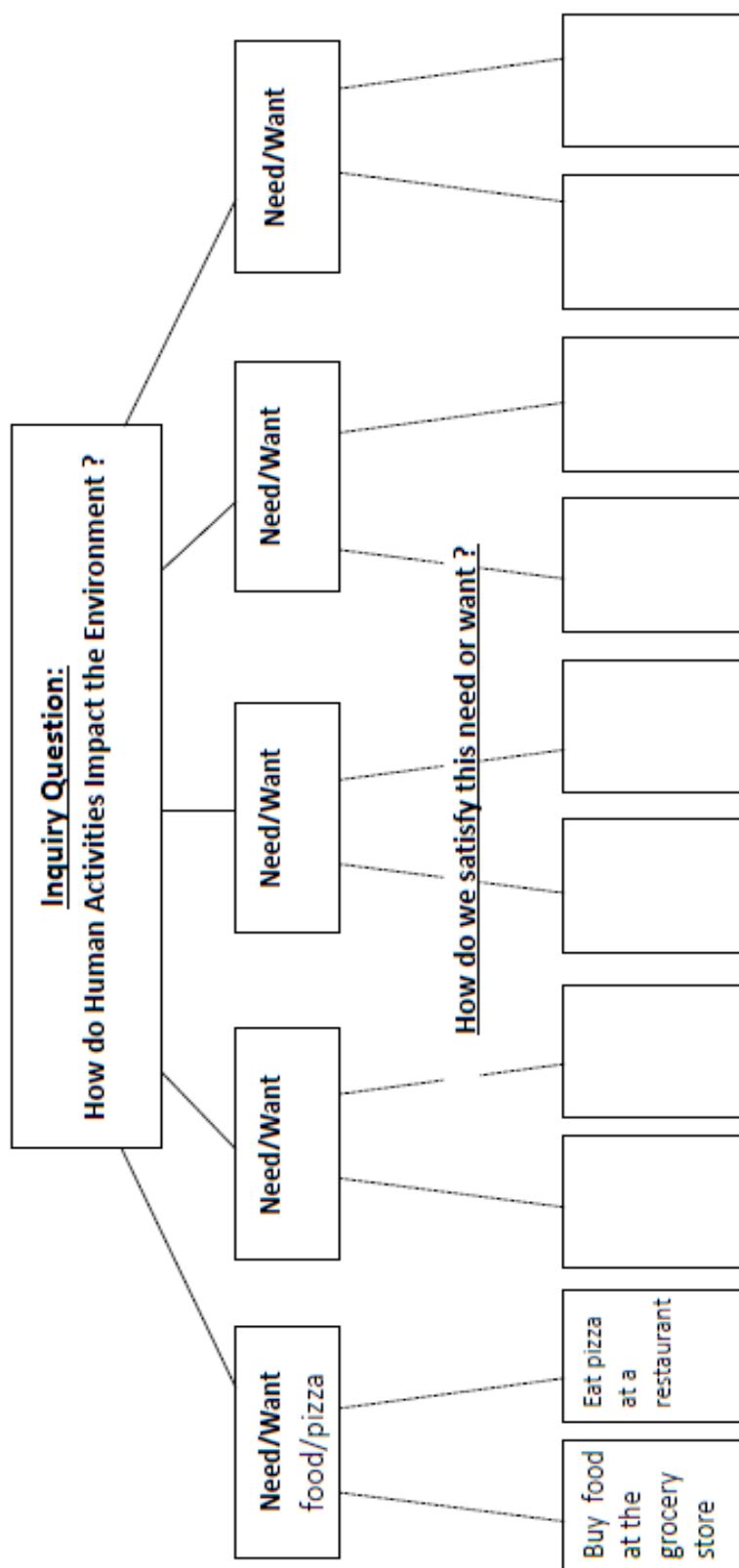
References

Maslow, A (1954). *Motivation and personality*. New York, NY: Harper. p. 236.

Ministry of Education. *Acting Today, Shaping Tomorrow; A Policy Framework for Environmental Education in Ontario Schools*. Ontario, 2009

The Laboratory School at the Dr. Eric Jackman Institute of Child Study. *Natural Curiosity: Building Children's Understanding of the World through Environmental Inquiry*. University of Toronto (2011)

BLM 1.1 – Graphic Organizer: Needs, Wants and Human Activities



BLM 1.2 – Knowledge Building Circle

Knowledge Building pedagogy refers to teaching and learning which focuses on improving the ideas of the entire classroom community instead of solely on the individual learner. The approach emphasizes collaborative learning experiences where students come together to pose questions, posit theories, and to revisit, negotiate, and refine their ideas. Knowledge Building Discourse builds upon traditional classroom discussions by encouraging student-led inquiry, rather than promoting a teacher-directed forum. Knowledge Building Discourse "serves to identify shared problems and gaps in understanding and to advance students' understanding beyond the level of the individual" (Scardamalia, 2002).

The term Knowledge Building Circle refers to the seating configuration of students as they engage in Knowledge Building discourse. The circle is an intentional physical configuration that is conducive to successful Knowledge Building for several reasons:

- **Circles promote attentive listening and communication.** The physical shape facilitates face-to-face dialogue amongst students. Eye contact and 'attentive' body language - physical signs of respect and active listening - are more visibly apparent.
- **Circles eliminate hierarchy.** All students enjoy an equal place in a circle. No one student takes precedence over another. The teacher takes his or her place within the circle as a co-learner. As members of this egalitarian knowledge building community, students both learn from, and contribute to, each other's understanding. They take turns speaking and wait patiently for their turn. In Early Years classrooms, or in classes at any grade level that are new to Knowledge Building Discourse, the teacher may direct the conversation by selecting which student with their hand up will speak next. The goal is for the students to eventually raise their hands and wait for the student who has just spoken (not the teacher) to choose who will speak next.
- **Circles foster respect for all life.** Learning how to communicate respectfully with others is an important aspect of children's social development, and integral to developing their sense of respect for all life.

Note: A Knowledge Building Circle aligns with many principles of an Aboriginal Talking Circle, such as listening and speaking in a respectful way in a non-hierarchical, safe environment.

Assessment opportunities during Knowledge Building Circles include:

- **Expressive language and communication:** Does this student communicate his or her thoughts in a clear and coherent manner such that the rest of class is able to understand and respond?

- **Ability to interact with diverse ideas and perspectives:** Does the student listen to other students' ideas and agree or disagree in a positive way?
- **Contribution to community knowledge:** Does the student make connections and build upon the ideas shared by other students, and in the appropriate context?
- **Ability to use authoritative sources constructively:** Is the student's understanding refined by something he or she has read from a book or heard from an authoritative person who has come in to talk to the class?
- **Understanding of basic concepts:** Has the student revealed a misconception?
- **Flexibility of ideas:** Does the student hold onto his or her own beliefs no matter what?
- **Providing supporting explanation:** Does the student provide evidence for his or her ideas? Where does this evidence come from (e.g., personal experience or anecdotes, observations of naturally occurring phenomena, books, experts, other students)? Does the student draw upon multiple sources of information to improve his or her thinking and understanding?
- **Participation:** Does this student participate in the discourse? Does he or she ask more questions than offer ideas or vice-versa?

Direct excerpts and adaptations from *Natural Curiosity: A Resource for Teachers: The Laboratory School at the Dr. Eric Jackman Institute of Child Study*
<http://www.naturalcuriosity.ca/search.php?searching=knowledge+building+circle>

BLM 1.3 – Exit Card: Considering Environmental Impact

