Assessment for Outdoor Learning

Connecting with the Natural World
Junior Division Integrated Curriculum

Assessment for, as and of learning can all be done while learning outside. The primary purpose of assessment and evaluation is to improve student learning. (Ontario Science and Technology Curriculum Grades 1-8 , 2007, pg. 21), Since Inquiry-based and Experiential-based learning that readily occurs outdoors stimulates student learning by direct involvement, assessment for and as learning naturally occurs. Using the questions students ask and the interaction between teacher and student exploring together, learning goals and success criteria can be developed. Assessment of learning can also occur as teachers use a variety of observations and activities to evaluate achievement of overall expectations.

The Ontario Curriculum document requires strategies of assessment that are varied, appropriate for the needs and experiences of the students and promote students' ability to assess their own learning (2007, pg. 21, 22). All these strategies can be met through observations of outdoor experiences.

Assessment for Learning Overview

Teachers are implementing Assessment for Learning when they are using the information from the evidence of student learning to provide descriptive feedback to students and to develop

meaningful learning tasks to help move students' achievement to a higher level. "Teachers use a variety of assessment strategies to elicit information about student learning. These strategies should be triangulated to include observation, student-teacher conversations, and student products. Teachers then use the information gathered to adjust instruction and provide feedback." (Growing Success, pg. 34).

Growing Success (page 34) explains that teachers gather information about student learning by:

- Designing tasks that provide students with a variety of ways to demonstrate their learning
- Observing students as they perform tasks
- Posing effective questions to help students make their thinking explicit
- Engineering classroom and small-group conversations that encourage students to articulate what they are thinking and further develop their thinking

Providing outdoor experiences is conducive to gathering information in these ways. Doing activities outdoors will increase the variety of assessment opportunities. The outdoor environment naturally stimulates questions from students that will help them express their learning. Teachers will find they will have to do less engineering of conversation in the outdoor classroom as the fresh, diverse surroundings will naturally engage students in conversation.

Possible assessment for learning tools/strategies includes:

1. Anticipation guides (Grade 6 Biodiversity - Lesson 1: Anticipation Guide)
2. Cooperative learning concept mapping (Grade 6 Biodiversity -Lesson 7: Biodiversity Garden, Grade 4 Habitats and Communities - Lesson 1: What is my Habitat?)
3. Anecdotal observation of content and language usage (Grade 5 Conservation of Energy and Resources - Lesson 1: Defining and Collecting an Inventory of Energy in the Community)
4. Question formation by students
5. Observations during classroom or out of doors task completion (Grade 5 Conservation of Energy and Resources Lesson 1: Defining and Collecting an Inventory of Energy in the Community)
6. Observations of small group and whole group student talk, inside and outside (Grade 5 Conservation of Energy and Resources - Lesson 2: Acting Out Energy)
7. Listening to student talk as they describe or explain their thinking (Grade 4 Rocks and Minerals- Lesson 2: Rock Identification and Classification, Grade 5 Conservation of Energy and Resources Lesson 2**:** Acting Out Energy)
8. Responses to prompting questions (Grade 5 Conservation of Energy and Resources - Lesson 1: Defining and Collecting an Inventory of Energy in the Community and Lesson 2: Acting Out Energy)
9. What students include or do not include in their out of doors recording sheets (Grade 5 Conservation of Energy and Resources - Lesson 1: Defining and Collecting an Inventory of Energy in the Community)

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10. Reflections students state or do not state in their journals or exit tickets (Grade 5 Conservation of Energy and Resources- Lesson 2: Acting Out Energy)
11. Electronic evidence (digital pictures, video, audio recording, etc.) of students showing evidence of learning connected to the learning goals and success criteria (Grade 6 Biodiversity – Lesson 4: Virtual Collections)
12. What students record, do or discuss during out of doors tasks

Assessment as Learning Overview

Assessment as learning is happening when students are involved with self-assessment and use the information about their learning to improve their achievement in learning. When teachers help students develop this meta-cognition, they are helping students build lifelong learning skills. "Teachers help students develop their self-assessment skills by modelling the application of success criteria and the provision of descriptive feedback, by planning multiple opportunities for peer assessment and self-assessment, and by providing descriptive feedback to students about the quality of their feedback to peers. By clearly identifying, sharing, and clarifying learning goals and success criteria, teachers lay the foundation for practices such as providing feedback and enabling students to develop skills in peer and self-assessment." (Growing Success, pg. 35-36).

Possible assessment as learning tools/strategies includes:

1. Anecdotal observations of student interaction, language, group work (Grade 5 Conservation of Energy and Resources - Lesson 2: Acting Out Energy)
2. Observations of games, activities (Grade 5 Conservation of Energy and Resources - Lesson 2: Acting Out Energy)
3. Group projects, investigations, field research, out of doors tasks and students reflections upon their achievement and goals (Grade 5 Conservation of Energy and Resources -Lesson 3: Conservation of Energy and Resources Blog)
4. Application of concepts in stewardship projects (Grade 4 Habitats and Communities Lesson 4: What's the Biggest Human Impact?)
5. Journaling, inquiry lab books (Grade 4 Habitats and Communities - Lesson 3: Invaders! Ladybug Field Study)
6. Knowledge building circles (Grade 6 Biodiversity - Lesson 7: Biodiversity Gardens, Grade 4 Rocks and Minerals-Lesson 2: Rock Identification and Classification)
7. Student questions and wonderings that lead them to build personal goals
8. Artwork, creative writing, and other products that students reflect upon (Grade 4 Rocks and Minerals-Lesson 4: Repurposing Items)
9. Reflections on portfolios and/or electronic portfolios (Grade 5 Conservation of Energy and Resources- Lesson 3: Conservation of Energy and Resources Blog)

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10. "I can" statements (Grade 6 Biodiversity – Lesson 2: Web of Life Interrelationships)
11. Exit Tickets in response to portfolio work or as reflections on learning tasks
12. What students include and do not include in reflections in thinking journals
13. Self-reflections related to learning goals for inside and out of doors activities (Grade 4 Rocks and Minerals Lesson 1, Let's Dig in the Dirt!)
14. Self-Goal Setting
15. Peer evaluation (Grade 4 Rocks and Minerals Lesson 3: Discovering Human Made Items that Contain Rocks and Minerals)
16. Differentiation strategy could include audio recording (MP3 file) of reflections for students with accommodations or modifications.

Assessment of Learning Overview

Assessment of learning leads to the evaluation that teachers make, using their professional judgment, on how a student is achieving at a given time in a course or grade level. "Evidence of student achievement for evaluation is collected over time from three different sources – observations, conversations and student products. Using multiple sources of evidence increases the reliability and validity of the evaluation of student learning." (Growing Success, pg. 39) Evaluation of a student's achievement at a given time will involve teacher's professional judgment and interpretation of evidence (collected over time) and should reflect the student's most consistent level of achievement, with special consideration given to more recent evidence.

Bringing students outdoors will increase sources of evidence for assessment. In this document, opportunities for observations, conversations and student projects are developed.

Possible assessment of learning tools/strategies include :

1. Rubrics
    a. ICE - Ideas, Connections and Extensions (Natural Curiosity, 2011, pg. 33 and Grade 4 Habitats and Communities – Lesson 1: What is My Habitat?; Grade 6 Biodiversity - Lesson 2: Web of Life Interrelationships; Grade 5 Conservation of Energy - Lesson 7: Plan of Action to Support the Environment)
    b. KICA based on the Growing Success Achievement Chart
2. Anecdotal observations connected to learning goals and success criteria (Conservation of Energy and Resources - Lesson 4: Gathering Perspectives on Using Different Energy Sources)
3. Written projects, on line projects, presentations, etc., showing evidence of learning connected to the learning goals, and criteria for success (Grade 5 Conservation of Energy and Resources - Lesson 3: Conservation of Energy and Resources Blog)
4. Art and other products where students are able to show evidence of learning
5. "I can" statements (see Natural Curiosity, 2011, pg 33)
6. What students say during student-teacher conferences
7. Observations of how students use their problem solving in inquiry projects (Grade 4 Rocks and Minerals-Lesson 1: Let's Dig in the Dirt!)

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8. Observations of students working on a group project (observations of individual student application to project)
9. Rubrics, checklists, class lists with anecdotal comments, checkbricks, etc. to record evidence of learning both in the classroom and out of doors (Grade 6 Biodiversity Lesson 7: Biodiversity Gardens; Grade 5 Conservation of Energy and Resources - Lesson 7: Plan of Action to Support the Environment)
10. Flip cameras or digital cameras to capture students' evidence of learning

Resources: Natural Curiosity, 2011, pg 31-34

Triangulation Of Data
Learning Evidence for Assessment of Learning

Here are some ideas for assessment strategies and tools. Teachers should add their own ideas as they explore outdoor learning experiences.

Observations of Process

Strategies:

- how students approach inquiry project
- how students approach the learning task

Tools:

- Checklists
- Rubrics
- Anecdotal recording sheet
- Video or audio recording of student problem

Conversations

Strategies:

- Student questions and comments during a Knowledge Building Circle
- Student responses to effective questions by teacher
- Teacher/Student Conference

Tools:

- Checkbric
- Recording device to capture explanations
- Anecdotal recording tool

Products

Strategies:

- outdoor inquiry project
- presentation or video of outdoor learning task
- learning log

Tools:

- Checklists
- Rubrics
- Criteria list

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