

Title Visual Exploration of a Natural Environment

Subjects Science, Environment, Media Literacy

Level Intermediate, Middle School

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Abstract

In this several day lesson, students use the visual sense to explore a small natural environment. Using a viewfinder and camera, students document, describe and comment on the meaning they find in this small place. Individuals bring a range of prior knowledge to the setting and will make varied observations of it. As a collective, the students conduct primary research and visually represent their developing understanding for an audience of their peers. In the process, students learn to safely use and care for the digital camera. They develop a language base to discuss why and how their images "work" and could be improved. Students collaborate to learn. They improve in providing constructive critique and support to fellow learners. As with the writing process, an initial draft digital image of a subject is reviewed by oneself and others who describe what appeals in the image, the clarity of the intended message, and how the communication of the message could be improved through recasting the idea, reframing the image, working particular visual elements, and eliminating distracting content. A second draft of the image is readily constructed. Further manipulation of the image by the student will allow for additional refinement of the message.

When exploring an environment visually, students attend closely to that place.

What and where is this place?

What do I already know about this place?

What features and living things do I see here?

Who comes here, and what is the evidence of any impact on this place?

What does this place feel like?

What sounds and scents would you expect/did you experience in this place?

What are the textures of this place?

What does this place remind me of?

How is this place like and unlike other places that I know?

How do things in this place relate to one another?

How am I responding to what I see in this place through my intellect and my emotions?

Why do I think I respond in the ways that I do?

What does this place "mean"?

These are the questions students seek to answer for themselves through the images they make.

Invitation

A walk through a small wood brings students into intimate contact with the landscape for sensory discovery and response to the space. Students conduct visual explorations of a small natural environment using a viewfinder and camera to gain an overall sense of the landscape and the elements within it. They answer for themselves through the visual exploration and documentation of the place, "What does this place mean?" and "How may I communicate that meaning visually to an audience?"

Situation

Getting Ready for the Field Experience

This field experience makes a number of assumptions about student prior learning. If students are unfamiliar with or inexperienced in handling a camera, using a viewfinder, making photographic images and communicating about images, their meaning and how students control image elements to craft a particular message visually; the documents attached in the URL below will be helpful background information and activities which build to the field experience. When the teacher is comfortable that students have sufficient experience talking about and controlling the message of images they make, the visual exploration field experience produces an interesting range of communicative images.

- Select a small environment/place close to the school for students to explore visually. Ideally, the site would be very close to the school so that students could conduct this field experience readily over two to three days. In the sample below, we selected a small wooded area next to the school.
- Obtain any necessary permissions from the land owner prior to the field experience.
- Obtain any necessary school permissions prior to the field experience.
- Obtain any required parental/guardian permission prior to the field experience.
- Obtain any para-professional assistance required for students with visual, motor or other assistance needs.
- Recommend any dress requirements for this field experience such as boots, rain jacket, or sun screen.
- Explain to the students that the purpose of the field experience is to observe and explore the environment in depth while ensuring that they do not have a negative impact on that environment.
- Visit the site ahead of time to determine any hazards in the environment which need to translate into cautions for the students.
- Have the students prepare a cardboard clipboard or locate a binder for documenting observations.
- Teach the students safe care and handling of the still digital camera.
- Have students perform a "check out" routine prior to the field experience to ensure student safety and proper care and use of the camera.
- Ensure that the digital camera batteries are fully charged and review the contents of the

camera bag to ensure that camera accessories are present, sufficient disks are packed and, moisture protection is available in case of rain or snow.

Tasks

The Learning Experience

Activating Students' Prior Knowledge, Understanding and Experience

Prior to the field experience, tell the students where they will be going and ask them to identify what they already know, understand or have experienced in that environment. Record any questions about the environment which arise during the discussion. Create a thought web of prior knowledge on the board, chart paper, or by using software such as Inspiration 6 and a large image projection device such as a data projector. Use the "What Does This Place 'Mean'?" sheet to support student thinking. (See handout "What does this place mean?" attached in the URL below.)

Visual Exploration without a Camera or View Finder

A walk through a small wood brings students into intimate contact with the landscape for sensory discovery and response to the space. Preferably, students conduct an initial exploration without the camera or viewfinder to gain an overall sense of the landscape and the elements within it. The questions contained on the "What Does This Place 'Mean'?" handout included with this unit of practice should be top of the mind during the initial exploration of the place. Students should show each other and discuss what they are discovering in the place. Discussion and showing help all students to more deeply engage with the landscape and supports peer collaboration for learning. Through discussion, students articulate what the place "means" and how their collective prior knowledge and current observations expand individual and collective understanding of the place. In pairs or small groups, students may choose to make jot notes or make quick sketches of observations on paper in their binder.

Large Group Discussion and Further Development of the Thought Web

Upon return to the classroom, assign students to add additional ideas to the thought web based upon class discussion of their observations. Which prior understanding and ideas were confirmed, enhanced or refuted by the direct observation of the environment? What new questions do the students have about this small place?

Extending the Visual Exploration with a Camera or View Finder through a Re-Visit of the Place

Once students have had an initial exploration of the environment, placing a viewfinder and camera at their disposal, presents them with the challenge and opportunity to visually represent this new understanding and response during a second visit. It also provides the opportunity for students to extend their initial understanding and response through reflective talk, additional observation, and the visual search for and documentation of the inter-connectedness of elements within the environment. Essentially, students should begin to answer for themselves, "What does this place mean?" and "How may I represent and communicate this meaning using my visual sense and the technology of the camera?" (For instructions see the handout Safe Care and

Handling of the Digital Still Camera, handlcam.pdf attached in the URL below.)

Let's Look at the Images We Have Made About this Place!

Connect the computer and projector and project students' images for a whole class discussion. The focus is on the communicative value of the images. Each image should be projected for 5-15 seconds and initial responses should focus on the particular appeals of the projected images. As a collection, what do the images tell the viewer about the "Place"? What range and diversity of meaning does the place hold for students as communicated by the images?

For support in developing students experience with this discussion, please consult and adapt from the handout "Discovering How Images Communicate" (imcomm.pdf) attached in the URL below.

What do you like about your image?
How does the image make you think and feel?
What Forms of Appeal are at work in this image? Which are strongest?
How might you shoot a particular image differently next time? And why?
What smaller portions of the image are especially "good"? And why?
If you could get rid of anything in the image, what would you get rid of and why?

Personal prior knowledge of the environment, and discussion of the images they make, lead students to seek richer and more precise language to communicate the meaning they attribute to particular images. What is it about the subject of the photograph and the way in which they have arranged or worked visual elements which contribute to their affective and intellectual responses to that image? Knowing how an image "works" and being able to make images which communicate the image maker's intent are part of students' literacy in the information age.

Interactions

Large group, small group, paired, and individual discussion and friendly, constructive critique of student produced images.

Handling the digital still camera safety.

Constructing images to convey a particular meaning through deliberate decision-making.

Exploring a natural place with a small group of learners.

Brainstorming and concept mapping using blackboard, chart paper or concept mapping software (Inspiration 6)

Self, peer and small group assessment of images and their communicative value.

Assessment

Assessment rubrics and processes are described in the handout "Discovering How Images Communicate" and may be freely reproduced and adapted by classroom teachers for use with

their students. (See the URL below.)

Tools

clipboard or binder per student

Computer and Projection device, screen

Inspiration 6 or

Chart Paper and Markers/blackboard and chalk/whiteboard and marker

Digital Still Camera Kit and

labelled 3.5 inch diskettes (one per 2 students)

Handouts included with this Unit of Practice

Project

A .pdf version of this unit of practice "Visual Exploration of a Natural Environment" (visexp.pdf)

Handout "What does this place mean?" (placemean.pdf)

Handout "Safe Care and Handling of the Digital Still Camera" (handlcam.pdf)

Handout "Discovering How Images Communicate" (imcomm.pdf)

Standards:

Nova Scotia Information Technology Integration Learning Outcomes for students at various grade levels.

Grades 4-6

BOC 6.1 Basic Operations and Concepts

Students will be able to use calculators; media and computer equipment; and relevant peripheral devices, such as scanners, cameras and printers.

BOC 6.9

Students will begin to understand the health and efficiency reasons for using IT in an ergonomically correct fashion.

PTS 6.9 Productivity Tools and Software

With the assistance of their teachers, students will use tools for observation, measurement and calculation to explore scientific, mathematical and geographic concepts under study.

Grades 7-9

BOC 9.1 Basic Operations and Concepts

Under general supervision as they research, design and create products that represent their learning, students will be able to independently and safely

- operate a wide variety of school media equipment, including audio equipment, overhead projectors, video cameras, video cassette recorder/players, televisions, photocopiers, and still cameras;
- use computer equipment to access and use curriculum-based computer software, from CD-ROMs, hard drives, or other data storage media.

CT 9.1 Communications Technology

Students will represent their learning in a range of media, including print, video, audio, and multimedia, with growing confidence and competence.

RPSD 9.2 Research, Problem Solving and Decision Making

With the assistance of their teachers, students will select and use appropriate forms, styles, media, and sources to access, manipulate, assess and present information meaningfully for different audiences.

URL: See Project section above or the actual NSLI posting.