CROWN OF THE CONTINENT ECOSYSTEM EDUCATION ACTIVITY: PERSPECTIVES ON LAND MANAGEMENT

January 28, 2004

GRADE (S): 7-12

STANDARDS/CURRICULUM CONNECTIONS:

Alberta Program of Studies

Science
Grade 8: Interactions and Environments
Grade 9: Environmental Quality
Science 20: Changes in Living Systems & The Changing Earth
Science 30: Living Things Respond to Their Environment
Biology 20: The Biosphere & Energy and Matter in Ecosystems.

Montana Content Standards
Social Studies
Standard 1: Access, synthesize, and evaluate information to communicate and apply social studies knowledge to real-world situations.
Standard 3: Apply geographic knowledge and skills (e.g., location, place, human/environment interactions, movement, and regions).

Science
Standard 3: Demonstrate knowledge of characteristics, structures, and function of living things, the process and diversity of like, and how living organisms interact with each other and their environment.
Standard 5: Understand how scientific knowledge and technological developments impact society.

Communication Arts – Writing
Standard 1: Write clearly and effectively
Standard 6: Use the inquiry process, problem-solving strategies, and resources to synthesize and communicate information.

COCEEC CONCEPTS:
Define and explore key natural resource issues affecting Crown of the Continent.
Define the term ecological health and why it's important to an ecosystem.
Describe how humans are part of the Crown of the Continent Ecosystem.

SUBJECT(S): Social Studies, Science, English

SKILLS: Interviewing, writing, listening, map reading skills, researching.

DURATION: Three to four class periods or two class periods with a field trip.

SETTING(S): Classroom and/or Field Trip (preferred)

OUTLINE:
Understanding the human construct of land – its ownership and its management - is crucial to understanding the economic, social, political and ecological forces of the ecosystem. This activity will allow students to explore the similarities and differences of different land managers (public and

private), explore their own perspectives about land and how it should be managed, and develop their own definition of ecological health. It will also help develop skills in listening to and considering the viewpoints of others.

OBJECTIVES:

Students will:

- Understand that different groups and individuals may have different perspectives about land, land management and ecosystem health, and that these viewpoints have impacts – both positive and negative - on the Crown of the Continent Ecosystem.
- Understand that having a variety of perspectives relating to land and land management is a positive situation.
- Understand that different people define ecological health differently.
- Think about their own viewpoints relating to land, and develop their own definition of ecological health.
- Describe why land management is important.
- Describe why consideration of other land manager's viewpoints is useful.

MATERIALS:

- Land manager contact list, developed by the students and instructor.
- Discussion points and interview questions for students to use for interviews. Suggestions are included but students should also develop additional ideas.
- COEC map and Profile.
- Other regional maps for the specific geographic area.

PROCEDURE:

PRE- ACTIVITY:

- Have students discuss their viewpoints regarding the value of land, land 'ownership' and who is or should be responsible for taking care of land.
- Discuss what land management is and why it is important.
- Have students create a list of people/agencies who are responsible for taking care of land in their area.

ACTIVITY:

Activity will focus on a number of different people who are involved in managing, living on and/or taking care of land. Suggested groups include - rancher, aboriginal/native representative, protected areas resource manager, industry representative (gas, forestry, mining). Other possibilities are county or municipal district councillor, farmer, resident of a town or city, acreage owner. If the activity is done as a field trip or classroom visitors, it is suggested that the number of representatives be kept to 3 to 4 (e.g. the four suggested groups). If students teams are reporting back, consider a broader range of representatives.

Activity can be carried out as:

A. Field trip, visiting the areas where the representative lives/operates,
B. Invite representatives to come into the classroom for question & answer period,

C. Have students divide into small teams, interview land managers and report back to the other students.

Students will pose a common set of questions to each of the land managers to gain a greater understanding of their connections to the land, how they manage their resources, and what their definition of ecological health is. (Students can develop their own questions or use questions in appendix.)

The (instructor) group leader will then lead a discussion regarding similarities and differences in the answers gained from the land managers. As well, compare on the map where these people live and or operate to see if there are any common land management practices, goals, objectives, and philosophies of ecosystem health. Students should then develop their own definition of ecological health.

EVALUATION/ASSESSMENT:

Students will:

- Define ecological health.
- Identify actions mentioned by each of the representatives, which may positively or negatively affect the ecosystem.
- Identify two examples of the similarities and differences in the viewpoints of the people they have interviewed**.**

RESOURCES:

COCE Profile Chapter 13:(What the land offers-natural resources of the crown) addresses the resources and uses of the area known as the crown of the continent.

COCE Profile Chapter 14 (Lines on the map – land ownership and management) expands on the issues with a look at the various entities that manage the land.

Suggested Interview questions.

Where do you live? How long have you lived there? or,
Where do you work? How long have you done that job?

Do you own, rent or lease the land where you live? or,
When doing your job, who owns, rents or leases the land?

Why is the land important to you?

Who's responsibility is it to take care of the land?

What sort of activities do you and/or other people conduct on the land you live on/manage?

Why are these activities carried out? (investment, earn a living**,** personal satisfaction, conservation, live there, recreation…..)

How do you manage your land and its natural resources? Do you use formal education, experience and/or traditional knowledge to assist you in this?

What effects do you think your activities have on the land? Will the land be better than when you started? Worse? About the same? Why?

Do you think your activities mainly affect your land, or do they have an impact on neighbouring areas?

What does the term ecological health mean to you?

What activities do you carry out to ensure long-term use of the land?

What activities do you carry out to ensure long-term health of the land? Do you think this is your responsibility?

Can you describe the different sorts of lands that surround your area and under whose authority are they managed?

How do these varying lands classification help or hinder you in reaching your land management goals?

Developed By:
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Glossary:
natural resource - A part of the environment to which people have given value, or see as being available for use (e.g. trees, water, minerals).

resource management - The decisions people or organisations make regarding how resources are used and under what conditions or arrangements they may be developed.

sustainable resource use - Resources are developed or used in a way that does not destroy them, and ensures their use by future generations.

ecosystem - All the living and non-living things in a given area that interact with one another; a natural community within its physical, chemical and biological environment.

ecological integrity (health) - The health of an ecosystem. An ecosystem is healthy when all its native species (plants, animals and other living things) and supporting processes (such as reproduction, fire, flood, erosion) are intact and thriving; and, people use the land in ways that respect the needs of all living things and allow natural processes to continue.