



Let's Get Wild Performance Task

Interactions in Local Ecological Communities Research Project

Rationale

Interactions among individuals (plants, insects, bacterial, animal, etc.) either within the same population or from different populations are one of the main driving forces behind population dynamics – how populations change over time. This performance task will help students answer the questions:

1. In what ways may individual members of a population interact with another or with members of a different population?
2. What role does society play in managing wildlife populations?

General Learning Outcome

- ✓ Students will explain the interaction of individuals in a population with one another and with members of other populations.

Specific Learning Outcomes

- 30-D2.1k describe the basis of species interactions and symbiotic relationships and describe the influence of these interactions on population changes; i.e.,
 - predator-prey and producer-consumer relationships
 - symbiotic relationships: commensalism, mutualism and parasitism
 - interspecific and intraspecific competition
- 30-D2.3k explain how mixtures of populations that define communities may change over time or remain as a climax community; i.e., primary succession, secondary succession
- 30-D2.1sts explain why Canadian society supports scientific research and technological development to facilitate a sustainable society, economy and environment (SEC4a) [ICT F2-4.2, F2-4.8]
 - discuss public support for scientific work done on predator-prey relationships as part of wildlife management in national and provincial parks, such as the introduction of wolves
 - identify examples of wildlife management techniques used by Aboriginal peoples
- 30-D2.1s formulate questions about observed relationships and plan investigations of questions, ideas, problems and issues
 - plan an investigation of species interaction in a national park or wilderness area (IP-NS2, IP-NS3).



Using GRASPS to Organize Performance Tasks

GRASPS is a method of designing a performance task assessment developed by Grant Wiggins and Jay McTighe in their 2005 book, *Understanding by Design*. GRASPS is an acronym for:

- Goal: what is the problem/challenge to be resolved?
- Role: who are the students in this scenario? What are they being asked to do?
- Audience: Who are the students solving the problem for? Who do they need to convince of the validity of their solution?
- Situation: What other contexts or factors exist that may impede the resolution of the problem?
- Product/Performance/Purpose: What is the larger purpose of the task?
- Standards/Criteria for Success: What standards must be met in order to achieve the goal? How will the work be judged by the audience?

GRASPS for Interaction in Local Ecological Communities Research Project

- Goal: You have been asked by a group of ecologists to help educate the public on species interaction and management strategies in wilderness areas close to or within Calgary. They are hoping that by helping the public become educated, it will inspire them to make change, donate to wildlife organizations, or pursue a career or volunteer role in community ecology.
- Role: For this task, you are stepping into the role of an advocate for environmental education that is passionate about educating others on issues that impact animals, people, and the environment.
- Audience: You are helping to solve this problem for the group of ecologists that want to create greater reach in the community. The audience that you will be presenting to are members of the public that have some awareness of local environmental issue, but are lacking specific knowledge about interactions and management of species.
- Situation: Due to the increasing emphasis on environmental education due to climate change and other global factors, this research project is very well-timed as more and more people are looking to make changes to the way they impact the environment and support environmentally focused initiatives.
- Product: You will create a piece of multimedia that will educate viewers on species interactions and management, as well as inspire an audience to take action and support organizations that do this work in parks, wildlife areas, and other green spaces.
- Standards: Your Lead Ecologist (teacher) will provide you with a rubric on how your creation will be evaluated.