

Assessment Criteria and Conditions:

- identifying and explaining one or more human-wildlife relationships expressed through each of the following: art, literature, dance, music and drama.

Suggested Reference(s):

- *The Nature of Canada: A Primer on Spaces and Species*
- *Project Wild*

STANDARD: Respond to a minimum standard of 3 on the rating scale

Rating Scale

The student:

- 4 meets project/task objectives in a self-directed manner. Provides explanations and critical judgements based on a superior knowledge base. Demonstrates an understanding of relevant concepts and related issues.
- 3 meets project/task objectives in a self-directed manner. Provides explanations and comparisons of relevant concepts using precise terminology. Requires little or no prompting.
- 2 meets project/task objectives with limited assistance in planning and in selecting and using resources. Applies knowledge of concepts in different situations using correct terminology. Requires occasional prompting.
- 1 completes task as directed, demonstrating basic skills/completeness by following a guided course of action. Uses simple recall to demonstrate basic knowledge of concepts. Requires prompting.
- 0 does not complete task, or is unable to provide a suitable response.

N/A Not applicable

Background Information	Sample Questions/Activities
<p>See <i>The Nature of Canada: A Primer on Spaces and Species</i>, Chapter 3: The Cultural Heritage Perspective:</p> <p><u>People, Culture and the Environment</u> Q42: How does the environment affect culture? Q43: How does culture affect the environment? Q44: What does studying people have to do with the environment? Q45: How do we learn about people?</p> <p><u>History</u> Q46: How do we learn about the past? Q47: But isn't history just about wars and inventions? Q48: How can history help us protect our environment in the future?</p> <p><u>Heritage</u> Q51: What's the difference between "history" and "heritage"? Q52: Then heritage is more than buildings? Q54: If we want to preserve heritage, can't we just take photos and videos? Q55: Can the concept of integrity apply to cultural heritage?</p>	<p>1. Examine differing cultural views regarding wildlife; e.g.:</p> <ul style="list-style-type: none"> – aesthetic/spiritual – consumptive – recreational – environmental. <p>2. Visit cultural/natural museums and take note of past/present influences of wildlife on cultures and societies; e.g.:</p> <ul style="list-style-type: none"> – food, clothing and shelter – spiritual and aesthetic – medicinal – recreational – companionship. <p>3. Identify one or more human-wildlife relationships expressed through each of the following:</p> <ul style="list-style-type: none"> – art – literature – dance – music – drama. <p>4. Based on your review of human-wildlife relationships expressed through the arts, cite instances where social/cultural attitudes and values regarding wildlife have changed.</p>

Guidelines for Writing the Composition

Write a story or poem inspired by a painting, photograph or sculpture of a wildlife space or species. Consider the following statements/questions to help stimulate your ideas for writing.

1. Examine your subject.
 - What is your angle or focus on the subject? This may guide you in the development of ideas.
 - Define your subject. What exactly is it? What does it include?
 - Describe your subject. What is it like? Does it have parts? How is it similar to other subjects? How is it different from other subjects?
 - Why does your subject exist? What is its purpose? What does it do?
 - Why is your subject important? Is it necessary? Why is it worthy for you to write about?
2. Consider your subject in relation to other things.
 - How did your subject develop? Where did it come from? Why does it do what it does?
 - What concrete/abstract ideas does your subject connect to? What does it affect? What affects it? How does it affect you?
 - Is your subject a part of something bigger? How? Is it composed of smaller parts? How?
 - Does your subject follow something else? What is it? What comes after your subject?
 - Does your subject have an opposite? How does this opposite affect your subject?
3. Reflect on the value of your subject.
 - Does your subject have social value? How?
 - Does your subject have economic value? How?
 - Does your subject embody any constant truths or principles? What are they?
 - Why might others want to know about your subject? What meaning might it have for others?

Criteria for Assessing the Composition

- Focus:** The topic is clearly defined; a controlling theme/idea is generally sustained.
- Content:** Creative, insightful and original ideas are used; the ideas are developed with supporting detail and relate to the topic.
- Imagery:** Precise, colourful words that communicate vivid pictures are used.
- Style:** The composition is clearly written and readily understood; a personal focus and distinct sense of individuality is established.
- Visual:** The composition is accompanied with a creative picture, photograph, drawing or painting of the subject.

STANDARD IS 3 IS EACH TASK AREA

Rating Scale

The student:

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
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- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

TASK	OBSERVATIONS/RATING					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

STANDARD IS 3 IN EACH APPLICABLE TASK

Rating Scale

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N/A Not applicable

TASK CHECKLIST

The student:

Preparation and Planning

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

Information Gathering and Processing

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and uses correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

Content

- explains an existing program that enhances a wildlife space and/or species by identifying:
 - goals and objectives of the program
 - the space(s)/species involved
 - impacts or consequences of the program
 - key interest groups involved
 - trade-offs or compromises made

Content (continued)

- identifies scientific, technological and/or societal (e.g., political, social, economic) decisions and/or processes involved in the program
- summarizes actions and strategies used in the program
- identifies and compares the contributions of different interest groups
- identifies and explains relevant laws, acts and agreements related to the program
- _____
- _____
- _____
- _____

Collaboration and Teamwork

- cooperates with group members
- shares work appropriately among group members
- suggests solutions to problems
- displays effective communication and leadership skills

Information Sharing

- demonstrates effective use of a variety of communication media:
e.g., written, oral, audio-visual
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- provides evidence of adequate information gathering by citing relevant and current information sources

REFLECTIONS/COMMENTS:

Introduction

This project involves the review of scientific research regarding a wildlife species and/or space as outlined in a current wildlife journal (e.g., *Canadian Journal of Zoology*, *Canadian Field Naturalist*, *Journal of Wildlife Management*, *Arctic*). You will be expected to identify major components of the research process as they apply to the space or species. Research components that must be identified include:

- definition of the problem
- review of relevant information sources
- a plan for collecting data
- data collection and presentation
- data analysis
- conclusions
- recommendations.

Guidelines for Conducting the Review

1. After reviewing several articles regarding wildlife research, select one article concerning a research project of interest to you. Explain in your own words the **problem** or **question** that the research proposes to answer.
2. When conducting research, a biologist gathers relevant information available from other sources regarding the topic. As you read the article, notice the many references made to the work or ideas of others. List five or more different references made to the work or ideas of others in the article.
3. The **plan for collecting data** is usually found in the “methods” section of a research article. Find this section of the article and attempt to answer the following questions:
 - What specific data is being collected?
 - How is the data collected?
 - Where is the data collected?
 - When is the data collected?
 - How often is the data collected?
4. Researchers often graph or map data so as to more easily identify relationships between variables that may exist. Describe methods of **data presentation** and **data analysis** used in the research project. Explain how the methods employed are used to answer the “problem” or “question” under study.
5. Summarize **conclusions** that were presented in the article. Do the conclusions address the “problem” or “question” that was proposed?
6. Summarize the **recommendations** made regarding the research topic as a result of the data collected and conclusions reached.
7. Describe how the outcomes of research were summarized and communicated to the intended audience. Identify strengths of limitations in the **methods of communication** used.

Assessment Tools

Criteria for Assessing the Review

Scoring Criteria	Weighting
<i>The student:</i>	
<input type="checkbox"/> defines the research problem	_____
<input type="checkbox"/> lists relevant sources of information	_____
<input type="checkbox"/> identifies/explains data collection techniques:	_____
– what?	
– how?	
– where?	
– when?	
– how often?	
<input type="checkbox"/> describes methods of data presentation/analysis	_____
<input type="checkbox"/> summarizes conclusions	_____
<input type="checkbox"/> summarizes recommendations made	_____

STANDARD: Identify all components and applications of scientific research to a standard of 3 on the rating scale.

Rating Scale

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- N/A Not applicable

Sample Research Topics

- Eagle Migration
- Food Habits of Caribou
- Polar Bear Dens
- Human Disruption of Animal Migration
- Comparing Bird Beaks
- Zebra Mussels
- Purple Loosestrife
- Introduction of Biological Controls
- Wolf Management in National Parks
- Reintroduction of the Swift Fox
- Decomposition Rate of Carcasses by Maggots
- Development of Ski Hills/Trails
- Impacts of Clearcutting on Trout Streams
- Beaver Control and Wetlands
- Impacts of Energy Development on Wildlife
- Impacts of Icebreakers on Marine Mammals
- Rattlesnake Predation on Gophers
- Environmental Effects of Dam Development

Guidelines for Defining the Research Problem

The student:

1. poses a relevant question for research
2. defends the relevance of the topic and question
3. identifies three or more relevant information sources
4. limits the topic and question to a specific problem to be studied
5. clarifies the problem by identifying key components and relevant terms
6. defines the problem by way of a concise statement/objective for research.

Criteria for Assessing the Research Problem

Scoring Criteria	Weighting
<input type="checkbox"/> Statement of Topic and Question	_____
<input type="checkbox"/> Relevance of Topic and Question	_____
<input type="checkbox"/> Information Sources	_____
<input type="checkbox"/> Limitation to a Specific Problem	_____
<input type="checkbox"/> Clarification of the Problem	_____
<input type="checkbox"/> Statement/Objective for Research	_____

STANDARD: Define five research problems to a standard of 3 on the rating scale.

Rating Scale

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- N/A Not applicable

TASK	OBSERVATION/RATING					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Conclusions and Information Sharing	4	3	2	1	0	N/A

STANDARD IS 3 IN EACH APPLICABLE TASK

Rating Scale

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N/A Not applicable

TASK CHECKLIST

The student:

Preparation and Planning

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- defines and limits a problem or question regarding a wildlife space or species
- designs a plan for conducting research and collecting data related to the problem

Information Gathering and Processing

- accesses a range of relevant information sources (e.g., library, computer, interview) and recognizes when additional information is required
- collects baseline and specific data using appropriate information gathering techniques; e.g.:
 - samplings and surveys
 - observations
 - measurements and estimations
- interprets, organizes and combines data in creative and thoughtful ways
- analyzes and interprets data, relates data to the problem, and formulates further questions

Collaboration and Teamwork

- cooperates with group members
- shares work appropriately among group members
- negotiates solutions to problems
- displays effective communication and leadership skills

Conclusions and Information Sharing

- draws conclusions related to the problem; e.g.:
 - recommendations
 - management actions
 - further research and investigation
- shares the results of research using two or more communication media:
 - e.g., written, oral, audio-visual*
- summarizes information relevant to each stage of scientific research; e.g.:
 - definition of the problem
 - literature review
 - data collection and presentation
 - data analysis
 - conclusions and recommendations
- maintains acceptable grammatical and technical standard in information shared
- gives evidence of adequate information gathering by citing current and relevant information sources used

REFLECTIONS/COMMENTS

Wildlife Management Terms

Match each term in Part B with the statement in Part A that describes it.

Part A

- _____ the “home” of a species of wildlife within an ecosystem
- _____ the edges or borders of different habitats overlap each other
- _____ the ability of a given habitat to support or carry a population of particular species
- _____ changes in habitat that result in an increase or decrease in carrying capacity
- _____ motion or change within a population over time
- _____ as the survival of breeding populations increase, the survival of the offspring decreases
- _____ the end result of a successive biome community that is capable of self-perpetuation
- _____ a field of “applied ecology”
- _____ if one or more factors affecting the death rate decline, others will increase so that overall death rate will not significantly change
- _____ two or more species living in the same habitat
- _____ a reliable count or estimate of the population of a wildlife species
- _____ changing soil, water and plant conditions to accommodate a targeted species
- _____ techniques used to alter the abundance and distribution of game populations
- _____ the gradual change in population characteristics over a geographical area
- _____ functional role of a species in its habitat

Part B

- game management
- limiting factors
- wildlife inventory
- climax
- habitat
- carrying capacity
- Principle of Inversity
- niche
- wildlife manipulation
- habitat manipulation
- cline
- coexistence
- edge effect
- Principle of Compensation
- dynamics
- stability
- zone

Answers

- habitat*
- edge effect*
- carrying capacity*
- limiting factors*
- population dynamics*
- Principle of Inversity*
- climax*
- game management*
- Principle of Compensation*
- coexistence*
- wildlife inventory*
- manipulation*
- wildlife manipulation*
- cline*
- niche*

Short Answer Quiz

1. State and explain the *Principle of Inversity*.
2. Explain philosophical differences between conservation, preservation and wildlife management.
3. Explain the difference between extirpated and extinct species. Give examples of each.
4. Explain what the carrying capacity of an ecosystem means.
5. Management schemes for big game animals are varied. Name and describe three ways to manipulate the population of a big game animal.
6. Describe two management schemes that could be employed to increase browse habitat for big game animals such as moose or elk.
7. Describe two instances of habitat manipulation and the consequences of each for wildlife.
8. Explain techniques for conducting a wildlife inventory.
9. Assume that a sage grouse population is living in a small portion of southern Alberta. Identify and explain three limiting factors for populations of this game bird.
10. Identify and describe major components in a wildlife management plan.

Assessment Criteria and Conditions:

- given information regarding a current plan for managing a wildlife space or species, identifying major components of the plan and applying each to the management of the space or species.

Suggested Reference(s):

- *The Nature of Canada: A Primer on Spaces and Species*
- *Project Wild*

STANDARD: Respond to a minimum standard of 3 on the rating scale

Rating Scale

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N/A Not applicable

Background Information	Sample Questions/Activities
<p>See <i>The Nature of Canada: A Primer on Spaces and Species</i>, Chapter 7: Programs for Protection and Stewardship:</p> <p><u>Promoting Stewardship of Spaces and Species</u></p> <ul style="list-style-type: none"> • Wildlife Policy for Canada • North American Waterfowl Management Plan • Wildlife Habitat Canada • Ducks Unlimited Canada • Recovery of Nationally Endangered Wildlife • Endangered Species Recovery Fund • Heritage Canada • Special Places 2000 <p>Obtain copies of current wildlife management plans. For example:</p> <ul style="list-style-type: none"> • <i>North American Waterfowl Management plan</i> • <i>Peregrine Falcon Recovery Plan</i> • <i>Vermilion Lakes Area Plan</i> • <i>Kootenay National Park Management Plan.</i> <p>See <i>Prairie Conservation: A Landowner's Guide</i> for additional information regarding wildlife management plans.</p>	<p>1. Cite reasons for the establishment of a plan for managing a space or species; e.g.:</p> <ul style="list-style-type: none"> – types of information gathered – questions that are answered. <p>2. Identify political, social, economic, technological and/or scientific factors/ perspectives that have influenced development of the management plan.</p> <p>3. Describe major components of the plan as they apply to managing the space or species; e.g.:</p> <ul style="list-style-type: none"> – goals and objectives – data collection and research techniques – government and nongovernment input – alternatives, consequences and potential conflicts – the course of action taken – strategies for monitoring and assessing outcomes – recommendations and/or suggested modifications. <p>4. Develop a glossary of terms relevant to the wildlife management plan.</p>

TASK	OBSERVATIONS/RATING					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

STANDARD IS 3 IN EACH APPLICABLE TASK

Rating Scale

The student:

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TASK CHECKLIST

The student:

Preparation and Planning

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

Information Gathering and Processing

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and using correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

Content

- identifies reasons for managing a wildlife space or species; e.g.:
 - types of information gathered
 - questions that are answered
- identifies major political, social and/or economic decisions that have affected the management of the space or species from past to present

Content (continued)

- provides a historical account of the space or species; e.g.:
 - past and present status
 - government involvement and interest
- defines specific goals and objectives (past and present) of the management process
- provides a historical account of management strategies and tools that have been used
- identifies management outcomes, and relates these to original goals and objectives
- assesses management strategies and tools used from past to present in terms of:
 - usefulness in achieving desired goals and outcomes
 - impact on other spaces and/or species

Collaboration and Teamwork

- cooperates with group members
- shares work appropriately among group members
- negotiates with sensitivity solutions to problems
- displays effective communication and leadership skills

Information Sharing

- demonstrates effective use of a variety of communication media:
 - e.g., written, oral, audio-visual*
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- gives evidence of adequate information gathering by citing seven or more relevant information sources

REFLECTIONS/COMMENTS:

TASK	OBSERVATION/RATING					
Preparation and Planning	4	3	2	1	0	N/A
Analyzing Perspectives	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Evaluating Choices and Making Decisions	4	3	2	1	0	N/A

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N/A Not applicable

TASK CHECKLIST

The student:

Preparation and Planning

- accurately describes a current issue in wildlife management on which people disagree, explaining specific causes of disagreement
- poses thoughtful questions regarding the issue
- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data

Analyzing Perspectives

- categorizes different points of view regarding the issue in wildlife management; *e.g., cultural, ethical, economic, environmental, health-related, scientific, political*
- states a position on the issue and insightful reasons for adopting that position
- states three or more opposing positions on the issue and thoughtful reasons for adopting each position
- analyzes interrelationships among different perspectives/points of view
- recognizes underlying bias/assumptions/values in information and ideas

Collaboration and Teamwork

- shares work appropriately among group members
- respects and considers the views of others
- negotiates with sensitivity solutions to wildlife management problems

Evaluating Choices/Making Decisions

- describes in detail important and appropriate alternatives regarding the wildlife management issue
- establishes knowledge- and value-based criteria for assessing each alternative: *e.g., social, economic, environmental*
- selects an appropriate and useful alternative by showing differences among choices
- assesses strengths/weaknesses of decisions by considering consequences and implications for spaces and/or species
- communicates thoughts/feelings/ideas clearly to justify choices/decisions made

REFLECTIONS/COMMENTS

TASK	OBSERVATION/RATING					
Preparation and Planning	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Presenting/Reporting	4	3	2	1	0	N/A

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TASK CHECKLIST

The student:

Preparation and Planning

- sets goals and describes steps to achieve them
- uses personal initiative to formulate questions and find answers
- accesses a range of relevant information sources and recognizes when additional information is required
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately using appropriate technical terms and supporting detail
- plans and uses time effectively, prioritizing tasks on a consistent basis
- assesses and refines approach to task and project status based on feedback and reflection

Content

- provides a clear and concise statement of an issue regarding the management of a wildlife space and/or species
- describes social, political, scientific, ethical, economic and environmental perspectives related to the issue
- develops a logical argument and conclusions regarding a position taken on the issue, and provides a rationale for the position taken
- develops a plan of action for dealing with the issue at local and global levels
- provides a glossary of terms relevant to the issue

Content (continued)

- _____
- _____
- _____

Presenting/Reporting

- demonstrates effective use of a variety of communication media:
e.g., Written: spelling, punctuation, grammar, format (formal/informal, technical/literary)
Oral: voice projection, body language, appearance, enthusiasm, evidence of prior practice
Audio-Visual: techniques, tools, clarity, speed and pacing
- maintains acceptable grammatical and technical standards through proofreading and editing
- provides an introduction that describes the purpose and scope of the project
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- states a conclusion by analyzing and synthesizing the information gathered
- gives evidence of adequate research through a reference list including seven or more relevant information sources

REFLECTIONS/COMMENTS

Assessment Criteria and Conditions:

- explaining the general objectives of wildlife management.

Suggested Reference(s):

- The Nature of Canada: A Primer on Spaces and Species*
- Project Wild*
- Alberta Conservation and Hunter Education*

STANDARD: Respond to a minimum standard of 3 on the rating scale

Rating Scale

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N/A Not applicable

Background Information	Sample Questions/Activities
<p>See <i>The Nature of Canada: A Primer on Spaces and Species</i>, Chapter 6: The 100 Per Cent Solution:</p> <p><u>The 100 Per Cent Solution</u> Q83: What is the “100 per cent solution”? Q84: Why is 12 per cent the target for protected areas? Q85: Why do we need stewardship as well as protection?</p> <p><u>Setting Aside Protected Natural Areas</u> Q86: What are protected natural areas? Q87: Who creates protected natural areas? Q88: What are the different kinds of protected natural areas? Q89: What are representative protected areas? Q90: What are critical natural areas?</p> <p><u>Stewardship: Making Room for Wildlife</u> Q94: What is a steward? Q95: Is good stewardship related to sustainable development? Q97: How are foresters helping wildlife? Q98: How are farmers helping wildlife? Q99: What are other landowners doing to help wildlife? Q100: What are cities doing to make more room for wildlife? Q101: What’s being done to restore degraded ecosystems? Q102: What’s being done to recover specific wildlife species?</p>	<p>1. Explain basic principles of ecology relevant to wildlife management; e.g.:</p> <ul style="list-style-type: none"> – habitat – succession – carrying capacity – limiting factors – disease and parasites – population dynamics. <p>2. Define sustainable management within the context of wildlife spaces and species.</p> <p>3. Identify major social, economic and environmental factors addressed through wildlife management.</p> <p>4. Explain the mandates of the following agencies in making decisions involving wildlife in Canada:</p> <ul style="list-style-type: none"> – local government agencies – provincial government agencies – federal government agencies – private landowners. <p>5. Explain processes for consultation and public involvement in wildlife management decisions.</p>

Rating	INTERVIEW TECHNIQUE
	<i>The student:</i>
4	Gathering and Recording Data <input type="checkbox"/> identifies and clearly states the interview topic <input type="checkbox"/> accesses a range of relevant background information sources <input type="checkbox"/> lists/formulates potential questions to be asked <input type="checkbox"/> defines and limits each question to be asked <input type="checkbox"/> records each interview response accurately with appropriate supporting detail and using correct technical terms <input type="checkbox"/> _____
3	
2	
1	
0	
4	Comprehension, Analysis and Synthesis <input type="checkbox"/> interprets, organizes and combines information in creative and thoughtful ways <input type="checkbox"/> recognizes underlying bias, assumptions/values expressed through each interview response <input type="checkbox"/> summarizes each interview response in a concise and explicit way <input type="checkbox"/> applies information gathered regarding wildlife management to other situations, spaces and/or species <input type="checkbox"/> establishes conclusions regarding wildlife management principles based on the results of interview <input type="checkbox"/> _____
3	
2	
1	
0	
4	Information Sharing <input type="checkbox"/> demonstrates effective use of one or more communication media (e.g., written, oral, multi/media) <input type="checkbox"/> communicates thoughts/feelings/ideas clearly <input type="checkbox"/> maintains acceptable grammatical and technical standards <input type="checkbox"/> _____
3	
2	
1	
0	

SAMPLE INTERVIEW QUESTIONS
<ul style="list-style-type: none"> • How are management goals established? • How are limiting factors determined? • What steps are used to establish a management plan for a particular space or species? • Who identifies wildlife problems that need to be addressed through management? • Why do wildlife spaces and/or species need to be managed? • Who are the key stakeholder groups involved in management decisions? • Does the historical background of a space or species affect management practices/decisions? • How are management outcomes monitored to ensure consistency with management goals? • How is the success of a particular management project evaluated?

STANDARD IS 3 IN EACH APPLICABLE TASK

Rating Scale

The student:

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
- 3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively.
- 2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately.
- 1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately.
- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

N/A Not applicable

REFLECTIONS/COMMENTS

TASK	OBSERVATION/RATING					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

STANDARD IS 3 IN EACH APPLICABLE TASK

Rating Scale

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- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

N/A Not applicable

TASK CHECKLIST

The student:

Preparation and Planning

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

Information Gathering and Processing

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and using correct technical terms
- assesses and refines approach to the task and project status based on feedback and reflection

Content

- provides a clear and concise statement of management goals and objectives
- identifies and describes basic steps involved in the management plan
- describes data collection and research techniques employed in developing the plan
- identifies political, social, economic, environmental, ethical and/or scientific perspectives addressed through the management plan

Content (continued)

- summarizes management strategies and/or tools employed in the management plan
- identifies positive and negative outcomes/consequences, and potential conflicts with different stakeholder groups
- develops a position regarding the plan and provide a rationale for the position taken
- makes recommendations for dealing with the plan at the local level
- _____
- _____
- _____
- provides a glossary of terms relevant to the wildlife management plan

Collaboration and Teamwork

- cooperates with group members
- shares work appropriately among group members
- negotiates with sensitivity solutions to problems
- displays effective communication and leadership skills

Information Sharing

- demonstrates effective use of a variety of communication media:
e.g., written, oral, audio-visual
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- gives evidence of adequate information gathering by citing a range of relevant information sources

REFLECTIONS/COMMENTS

Criteria for Assessing a Management Plan

The student:

- provides background information regarding management history and current status of the space or species
- provides a statement of short- and long-term goals for management
- identifies relevant social, economic and environmental factors that need to be addressed through the management plan
- presents a course of action for managing the space or species
- anticipates/predicts outcomes and impacts of management practices on targeted and other spaces/species
- develops strategies for monitoring actual outcomes and impacts of management practices
- prepares maps/diagrams/graphs/videotape footage to accompany and elaborate upon the management plan

STANDARD: Develop and present the plan to a standard of 3 on the rating scale

Rating Scale

The student:

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- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.
- N/A Not applicable

Sample Topics/Themes for A Management Plan

- The deer population in your community has increased dramatically. How will you manage this increasing population?
- There are gulls in the school yard. Why are they there? How can they be managed?
- How can interactions between the black bear and bee farmer be managed for the benefit of both?
- You are a cattle rancher in grizzly bear country. How can you manage cattle-bear interactions?
- How can local wetlands be managed for the benefit of ducks?
- You are a cattle rancher and need hay to feed your cattle. How can you manage hay cutting so as to maintain nesting grounds for ducks?
- How can a farmstead be managed for the benefit of wildlife? Which species benefit from shelter belts?
- How can wildlife interactions be managed around dams?
- How do forestry practices affect wildlife abundance and survival?
- How has the introduction of the cowbird affected the abundance of other bird species?
- How should short and tall prairie grass be managed?
- How does the practice of zero-tillage affect wildlife?
- What is the role of predator-control programs in wolf management?
- How do large windows affect the survival of bird species? What can be done to increase the survival of bird species around large windows?
- How does "Bucks for Wildlife" affect the survival of wildlife? Which species benefit?
- How is waterfowl survey data used to set bag limits?
- How does information obtained through the sale of hunting licences contribute to the management of wildlife?

Agencies to Contact for Further Information

Current wildlife management plans provide useful information regarding management processes, strategies and tools. Request information regarding existing management plans from:

- Ducks Unlimited
- Trout Unlimited
- Bull Trout Task Force
- Western Walleye Council
- Alberta Fish and Wildlife.

TASK	OBSERVATION/RATING					
Preparation and Planning	4	3	2	1	0	N/A
Analyzing Perspectives	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Evaluating Choices and Making Decisions	4	3	2	1	0	N/A

STANDARD IS 3 IN EACH APPLICABLE TASK

Rating Scale

The student:

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
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N/A Not applicable

TASK CHECKLIST

The student:

Preparation and Planning

- accurately describes five current issues in wildlife on which people disagree, explaining specific causes of disagreement
- poses thoughtful questions regarding each of the issues
- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data

Analyzing Perspectives

- categorizes different points of view regarding each of five issues in wildlife:
e.g., cultural, ethical, economic, environmental, health-related, scientific, political
- states a position on each issue and insightful reasons for adopting that position
- states three or more opposing positions on each issue and thoughtful reasons for adopting those positions
- analyzes interrelationships among different perspectives/points of view
- recognizes underlying bias/assumptions/values in information and ideas

Collaboration and Teamwork

- shares work appropriately among group members
- respects and considers the views of others
- negotiates with sensitivity solutions to wildlife management problems

Evaluating Choices/Making Decisions

- describes in detail important and appropriate alternatives regarding each of five wildlife issues
- establishes knowledge- and value-based criteria for assessing each alternative:
e.g., social, economic, environmental
- selects an appropriate and useful alternative for each issue by showing differences among choices
- assesses strengths/weaknesses of decisions by considering consequences and implications for spaces and/or species
- communicates thoughts/feelings/ideas clearly to justify choices/decisions made

- _____
- _____
- _____
- _____
- _____

REFLECTIONS/COMMENTS

TASK	OBSERVATION/RATING					
Preparation and Planning	4	3	2	1	0	N/A
Information Gathering and Processing	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Collaboration and Teamwork	4	3	2	1	0	N/A
Information Sharing	4	3	2	1	0	N/A

STANDARD IS 3 IN EACH APPLICABLE TASK

Rating Scale

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N/A Not applicable

TASK CHECKLIST

The student:

Preparation and Planning

- sets clear goals and establishes steps to achieve them
- creates and adheres to detailed timelines
- uses personal initiative to formulate questions and find answers
- plans and uses time effectively, prioritizing tasks on a consistent basis

Information Gathering and Processing

- accesses a range of relevant information sources and recognizes when additional information is required
- demonstrates resourcefulness in collecting data
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately with appropriate supporting detail and using correct technical terms
- recognizes underlying bias/assumptions/values in information sources
- assesses and refines approach to the task and project status based on feedback and reflection

Content

- provides a clear and concise description of one international wildlife issue
- identifies the stakeholders involved and their respective points of view
- identifies and explains the positive and negative impacts of the issue on wildlife and on society
- provides a statement of personal position regarding the issue and a rationale for the position taken

Content (continued)

- suggests strategies or actions to respond to the issue; e.g.:
 - Who should use the resource and/or how much should be used?
 - How do various land users influence the long-term survival of this space or species?
 - What should be done to enhance the space or species?
 - What should be done in situations where there is conflict with humans?
- compare and contrast the issue with a similar issue in Canada and/or Alberta
- _____
- _____

Collaboration and Teamwork

- cooperates with group members
- shares work appropriately among group members
- negotiates solutions to problems
- displays effective communication and leadership skills

Information Sharing

- demonstrates effective use of a variety of communication media:
e.g., written, oral, audio-visual
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- maintains acceptable grammatical and technical standards
- gives evidence of adequate information gathering by citing relevant information sources.

REFLECTIONS/COMMENTS

TASK	OBSERVATION/RATING					
Preparation and Planning	4	3	2	1	0	N/A
Content	4	3	2	1	0	N/A
Presenting/Reporting	4	3	2	1	0	N/A

STANDARD IS 3 IN EACH APPLICABLE TASK

Rating Scale

The student:

- 4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence.
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- 0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

N/A Not applicable

TASK CHECKLIST

The student:

Preparation and Planning

- sets goals and describes steps to achieve them
- uses personal initiative to formulate questions and find answers
- accesses a range of relevant information sources and recognizes when additional information is required
- interprets, organizes and combines information in creative and thoughtful ways
- records information accurately using appropriate technical terms and supporting detail
- plans and uses time effectively, prioritizing tasks on a consistent basis
- assesses and refines approach to task and project status based on feedback and reflection

Content

- provides a clear and concise statement of an issue regarding wildlife conservation and management
- explains why the issue is important by presenting examples of a range of possible consequences
- identifies and categorizes different points of view regarding the issue:
e.g., social, economic, environmental, ethical, political
- recognizes underlying bias/assumptions/values in information and ideas
- states a position on the issue, and develops a logical argument and conclusion in support of the position taken

Content (continued)

- develops a plan of action for dealing with the issue at local and/or global levels
- provides a glossary of terms relevant to the issue
- _____

Presenting/Reporting

- demonstrates effective use of a variety of communication media;
e.g., Written: spelling, punctuation, grammar, format (formal/informal, technical/literary)
- Oral voice projection, body language, appearance, enthusiasm, evidence of prior practice*
- Audio-Visual techniques, tools, clarity, speed and pacing*
- maintains acceptable grammatical and technical standards through proofreading and editing
- provides an introduction that describes the purpose and scope of the project
- communicates thoughts/feelings/ideas clearly to justify or challenge a position
- states a conclusion by analyzing and synthesizing the information gathered
- gives evidence of adequate research through a reference list including relevant and current information sources

REFLECTIONS/COMMENTS