

Ecology Unit Task

How do human activities affect sustainable ecosystems and why should we care?

- ➔ We need to understand what an ecosystem is and its components.
- ➔ We need to understand what 'sustainable' means.
- ➔ We need to see how human activities affect ecosystems.
- ➔ We need to understand we would value and save sustainable ecosystems.

Task:

More interest is needed in sustaining our ecosystems. You are hired to get this message out to young people. Specifically, your goal is to briefly inform high school students about the importance of sustainable ecosystems and encourage them to seek a career in Ecology.

Format Choices:

- | | | | |
|--|---|---------------------------------------|---|
| <input type="checkbox"/> Newspaper editorial | <input type="checkbox"/> 3-5 min TV infomercial | <input type="checkbox"/> large poster | <input type="checkbox"/> 3-5 min radio commercial |
|--|---|---------------------------------------|---|

Ecosystems Task:

Name: _____ Format: _____

	Category/Criteria	Level 1	Level 2	Level 3	Level 4
Question 1	K & U	The Student:			
What is an ecosystem & its components? • What is an ecosystem? • What are its components?		- attempts to define ecosystem significant errors / omissions.	- defines ecosystem and explains the components (without examples)	- defines ecosystem and uses a specific ecosystem as example for some components.	- defines and thoroughly uses a specific ecosystem as an example for all components.
Questions 2	Application	The Student:			
What is sustainable and how does human activity affect sustainability? • What does 'sustainable' mean? • How can human activity affect sustainability?		- attempts to explain 'sustainable' and negative effects of human activity on sustainability.	- explains 'sustainable' and gives some generic examples of negative effect of human activity on sustainability.	- explains 'sustainable' and gives specific example of negative effect of human activity on sustainability.	- explains 'sustainable' and gives specific example of <u>positive & negative</u> effects of human activity on sustainability.
Question 3	Application	The Student:			
Why should we care about sustainable ecosystems? • What are some negative effects if we damage/lose an ecosystem?		Attempts to explain negative effects of damaging/losing ecosystem with significant errors/omissions	gives some generic examples of negative effects of damaging/losing an ecosystem.	- uses a specific ecosystem as example of some logical negative effects of damaging/losing it.	uses a specific ecosystem as thorough example of negative effects of damaging/losing it.

	Inquiry	The Student:				
How does one get a career in Ecology? <ul style="list-style-type: none"> • What does a student need to take in grade 12 • What university could one go to? • Who hires ecologists? 		- n/a	- suggests grade 12 courses to take OR suggests a university that offers Ecology or Wildlife Biology and identifies the prerequisite grade 12 courses.	- identifies university that offers Ecology or Wildlife Biology and identifies the prerequisite grade 12 courses.	- same as level 3 but also offers a suggested career or possible employer (scan newspapers, watch TV news, ask scientists you know...)	
	Communication	The Student:				
Does student communication using appropriate methods? * Refer to checklist criteria that you, the students, developed. It is posted on website under 'Other Useful Notes'.	<p>-communicates the researched information appropriately for the intended audience.</p> <p>* hint - remember how to slant your presentation to the people who are hearing it. Do NOT just read a report of information!</p>	-communicates with limited appropriateness to the intended audience.	-communicates with some appropriateness to the intended audience.	-communicates with considerable appropriateness to the intended audience.	-communicates with a high degree of appropriateness to the intended audience.	