Caring for Our Watersheds - Grades 7-9

CARING FOR OUR Watersheds™

Alberta Education Program of Studies Curriculum Connections
The following are the Alberta Education Program of Studies curriculum outcomes that Caring for our Watersheds meets for the varying grade levels.

	Science	Social Studies	Language Arts/English
Grade 7	**Unit A:** Interactions and Ecosystems (Social and Environmental Emphasis) • Investigate and describe relationships between humans and their environments • Monitor a local environment, and access the impacts of environmental factors on its growth and health • Work collaboratively on problems and communicate ideas, procedures, and results **Unit B:** Plants for Food and Fibre (Science and Technology Emphasis) • Identify plant uses: identify needs, technologies, products and impacts • Identify relationships among human needs, technologies, environments and the culture and use of living things	By studying the impact of water, water quality and physical geography on quality of life CFOW program satisfies several skill-based outcomes including: • Critical and creative thinking skills • Decision making and problem solving • Communicate in engaging and persuasive manner • Research for deliberative inquiry • Leadership and consensus building skills	Throughout all grades the proposal-writing component satisfies several general outcomes including: • Creating original text • Summarizing ideas from multiple sources • Use of oral, text, and media arts • Analysis and critical thinking skills • Justify own point of view through persuasive argument • Determine inquiry or research requirements • Work cooperatively and contribute to group process
Grade 8	**Unit E:** Freshwater and Saltwater Systems • Understand local and global environments • Identify the significance of water supply and quality to the needs of humans and other living things • Analyze human impacts on aquatic systems		
Grade 9	**Unit A:** Biological Diversity • Investigate how diversity contributes to species survival • Identify impacts of human action on species survival and variation within species, and analyze related issues for personal and public decision making **Unit C:** Environmental Chemistry • Investigate and describe the role of different substances in the environment in supporting or harming humans and other living things • Analyze and evaluate mechanisms affecting the distribution of potentially harmful substances within an environment		

Caring for Our Watersheds - Grades 10-12

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Alberta Education Program of Studies Curriculum Connections
The following are the Alberta Education Program of Studies curriculum outcomes that Caring for our Watersheds meets for the varying grade levels.

	Science	Social Studies	Language Arts/English
Grade 10	**Science 10 – Unit D:** Energy Flow in Global Systems • Investigate and interpret the role of environmental factors on global energy transfer and climate change • Relate climate to the characteristics of the world's major biomes	**10-1 Perspectives on Globalization** **10-2 Understandings of Globalization** • International impact on land, culture, economy, human rights, and quality of life	Throughout all grades the proposal-writing component satisfies several general outcomes including: • Creating original text
	Science 14: Investigating Matter and Energy in the Environment • Describe how the flow of matter in the biosphere is cyclical along characteristic pathways and can be disrupted by human activity • Analyze a local ecosystem in terms of its biotic and abiotic components, and describe factors of the equilibrium	• Evaluate the actions and policies associated with globalization that impact the environment	• Summarizing ideas from multiple sources • Use of oral, text, and media arts • Analysis and critical thinking skills • Justify own point of view through persuasive argument
Grade 11	**Unit A:** Energy and Matter Exchange in the Biosphere • Understand that the cycling of matter through the biosphere perpetuates its steady state of equilibrium **Unit B:** Ecosystems and Population Change • Explain how science and technology have both intended and unintended consequences for humans and the environment **Unit D:** Changes in Living Systems • Analyze ecosystems and ecological succession in the local area and describe the relationships and interactions among subsystems and components • Analyze and investigate the cycling of matter and the flow of energy through the biosphere and ecosystems as well as the interrelationship of society and the environment • Analyze and describe the adaptation of organisms to their environments, factors limiting natural populations, and evolutionary change in an ecological context.	**10-2 Understandings of Nationalism** • Examine competing non-nationalist loyalties such as ideology • Accept responsibilities associated with global citizenship and develop strategies for responsible global citizenship	• Determine inquiry or research requirements • Work cooperatively and contribute to group process
Grade 12	**Science 30 – Unit D:** Energy and the Environment • Analyze the sources of acids and bases and their effects on the environment • Analyze the sources of organic compounds and their effects on the environment • Analyze, from a variety of perspectives, the risks and benefits of using chemical processes in meeting human needs and assess technologies for reducing the impact of chemical compounds on the environment.	**10-1 Perspectives on Ideology** **10-2 Understandings of Ideology** • Examine how citizens are affected by ideological principles such as relationship to and and environmentalism • Examine relationship between individualism and collective good, including relationship to common good and quality of life	

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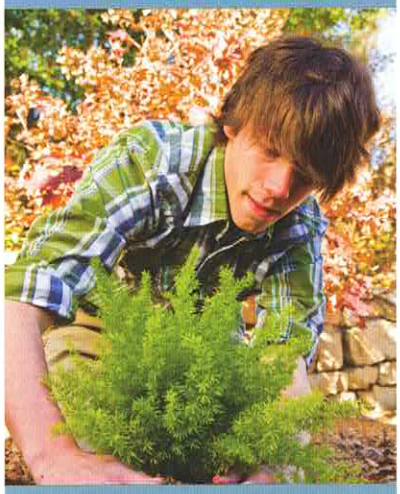

Turn your ideas into solutions.

Student Guide to a Successful Proposal

Thank you for being a part of the Caring for our Watersheds contest! The first step in entering to win up to $1,000 is to write a 1,000 word proposal answering the question: **What can you do to improve your watershed?**

Students will compete for $6,000 in awards
Grades 9-12 Category

1st Place	2nd Place	3rd Place	4th Place	5th Place
$1,000	$900	$800	$700	$600

6th Place	7th Place	8th Place	9th Place	10th Place
$500	$450	$400	$350	$300

Participating schools will also be eligible for over **$11,000 in rewards**.
Students who implement their ideas are eligible for $10,000 in funding.

The Proposal

1. Introduction (1 paragraph)
2. Define your watershed(1 paragraph)
3. Identify your concern (1 paragraph)
4. Explain your solution (3-4 paragraphs)
5. Explain the scope of your project (3-7 paragraphs)
6. How will this benefit the environment? (2 paragraphs)
7. Explain the resources needed (2 paragraphs)
8. Conclusion (1 paragraph)
9. Include visuals
10. Cite references

SMART Proposal Writing

When you are writing your proposal, ask yourself "is it S.M.A.R.T?'

S – Specific	Is your plan detailed? Try to keep it from being too broad or general. Talk about what ONE SOLUTION and the actions you are going to take to make it happen.
M –Measurable	Set clear goals for yourself. What do you want your project to do? Make your goals specific so you can evaluate whether you are successful.
A– Achievable	Make your project achievable. If you need help making your idea happen, make sure you identify who needs to be involved (government, industry organizations, conservation groups etc).
R – Realistic	Is it possible to complete this project? This project could really happen and the more reasonable it is, the more likely it is to succeed.
T – Timely	How long would it take? When would you complete your project by?

Over for more information

Entries are judged on innovation, environmental impact, comprehensive scope, communication, budget, realistic solution and visuals.

Review the Judges Scoring Guide online

More Help

Check out these useful websites which can provide you with more information.

Center for Land-Based Learning

www.landbasedlearning.org

Sacramento River Watershed Program

www.sacriver.org

This program is brought to you by:

Agrium

CENTER for LAND-BASED LEARNING

Below is a more detailed overview of the Proposal Guidelines. Remember to include diagrams, graphics, visuals, or video to support your proposal. Include any references from your research (in citations).

The Proposal- A Detailed Overview

1. Introduction: This is your chance to catch our attention and tell us what you are going to talk about in your proposal. Give us a brief summary of your watershed, what is affecting it, and what your idea is. Make us care about your project by thinking about why it is important to you. Remember, this is YOUR water and YOUR watershed.

2. Define your watershed: Tell us what watershed you live in. What is happening in your watershed? What could be impacting your watershed? Keep this section brief. Remember this is not an essay on the state of your watershed but a proposed SOLUTION to a concern in the watershed.

3. Identify the issue or concern you want to look at: Pick one specific impact that you see in your watershed. Then, tell us about that impact: what is causing it, what impact do you see in the watershed (for example: is water quality decreasing), and why you think this issue is important to do something about it.

4. Explain your solution: What can you do to improve your watershed? Within your school, your home, or your community, what is something you can do to help your watershed? You could educate people, monitor water quality, or create a piece of art; anything that you think could have a positive impact on your watershed. Be specific about what you will do, how it will work, and what it will take to make it happen. Be realistic!

5. Explain the scope of your project: The scope means: how big of a project this is and how far the effects will go. Is this a local project that will affect your home, your school, your county, or even your province? Is this project something that you can do alone, or will you need help? How many people will be affected by this? Think about scope in terms of the amount of work you need to put in, the number of people it affects, and the amount of area it will cover.

6. How will this benefit the environment? Explain to us how your idea is going to make positive changes to the environment. Maybe you plant to educate people so they change how they do things. Maybe you'll bring awareness to an issue that people know nothing about. Maybe you will make people see your watershed in a whole new way. Tell us why this is going to work! Remember, you are "selling" this idea to us.

7. Describe the resources needed to make this idea happen: You should be able to implement this project, so what will you need to make it happen. What will it cost and where will you get the funding to pay for it? Tell us where and how you will make this project happen. Think about materials needed, the costs involved, as well as the time required to make this project happen.

8. Conclusion: Sum up your idea and why it will help your watershed. Remember, don't introduce anything new about your idea, just go over what you've told us to remind us how great your idea is.

9. Include visuals: Show us what your idea would look like in a model, drawing, cartoon, video or graph – whatever creative way you want to express your solution. For example, if you want to make a watershed awareness brochure – write and illustrate a brochure! If you want to plant a native garden – draw us a picture or make a magazine collage of the plants you would include, the size it would be, where it would be located etc.

10. Cite References: Community judges will be reading your proposal and they are often conservation experts so it is important that you cite your references. Who knows …you might be citing some of their research!