

Project	In Water We Trust																																
Driving Question	How can we improve the state of the Red Deer watershed?	Total Time	21 Hours																														
Scenario	Students competed in a provincial contest by completing a written proposal that answered the driving question. Some students supplemented their written work with multimedia presentations.																																
Interdisciplinary Learning	<p>GRADE LEVEL <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input checked="" type="checkbox"/> 8 <input type="checkbox"/> 9</p> <p>SUBJECT AREA</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/> English Language Arts</td> <td><input type="checkbox"/> Mathematics</td> <td><input checked="" type="checkbox"/> Science</td> </tr> <tr> <td><input type="checkbox"/> Social Studies</td> <td><input type="checkbox"/> Religious Education</td> <td><input type="checkbox"/> Physical Education</td> </tr> <tr> <td><input type="checkbox"/> Fine Arts</td> <td><input type="checkbox"/> Health and Life Skills</td> <td><input type="checkbox"/> Languages</td> </tr> <tr> <td><input type="checkbox"/> Outdoor Education</td> <td><input type="checkbox"/> French Language Arts</td> <td></td> </tr> </table>			<input checked="" type="checkbox"/> English Language Arts	<input type="checkbox"/> Mathematics	<input checked="" type="checkbox"/> Science	<input type="checkbox"/> Social Studies	<input type="checkbox"/> Religious Education	<input type="checkbox"/> Physical Education	<input type="checkbox"/> Fine Arts	<input type="checkbox"/> Health and Life Skills	<input type="checkbox"/> Languages	<input type="checkbox"/> Outdoor Education	<input type="checkbox"/> French Language Arts																			
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CTF Program of Studies Learning Outcomes	<p>Essence 1: Career and Technology Foundations is exploring interests, passions and skills while making personal connections to career possibilities and technologies.</p> <p>Learning Outcomes:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> I explore my interests and passions while making personal connections to career possibilities <input checked="" type="checkbox"/> I demonstrate skills associated with occupational areas. <input checked="" type="checkbox"/> I use technologies related to occupational areas. <input type="checkbox"/> I follow safety requirements associated with occupational areas and related technologies. <p>Essence 2: CTF/FCT is designing, creating, appraising and articulating responses to challenges</p> <p>Learning Outcomes:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> I problem solve when creating responses to challenges. <input checked="" type="checkbox"/> I design when creating responses to challenges. <input checked="" type="checkbox"/> I make decisions when creating responses to challenges. <input checked="" type="checkbox"/> I adapt to change and unexpected events. <input checked="" type="checkbox"/> I appraise product(s), performance(s) or service(created in response to challenges. <input type="checkbox"/> I appraise the skills and technologies use to respond to challenges. <input type="checkbox"/> I articulate my learning. <p>Essence 3: CTF/FCT is working independently and with others through the exploration of careers and technology</p> <p>Learning Outcomes:</p>																																

	<input type="checkbox"/> I describe how my actions support learning. <input checked="" type="checkbox"/> I develop personal skills to support mutually respectful and effective relationships. <input checked="" type="checkbox"/> I work with others to achieve common goals.
Competencies	<p>MINISTERIAL ORDER (#001/2013)</p> <p>2.4 discover, develop and apply competencies across subject and discipline areas for learning, work and life to enable students to:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> know how to learn: to gain knowledge, understanding or skill through experience, study, and interaction with others; <input checked="" type="checkbox"/> think critically: conceptualize, apply, analyze, synthesize, and evaluate to construct knowledge; <input checked="" type="checkbox"/> identify and solve complex problems; <input checked="" type="checkbox"/> manage information: access, interpret, evaluate and use information effectively, efficiently, and ethically; <input checked="" type="checkbox"/> innovate: create, generate and apply new ideas or concepts; <input checked="" type="checkbox"/> create opportunities through play, imagination, reflection, negotiation, and competition, with an entrepreneurial spirit; <input checked="" type="checkbox"/> apply multiple literacies: reading, writing, mathematics, technology, languages, media, and personal finance; <input checked="" type="checkbox"/> demonstrate good communication skills and the ability to work cooperatively with others; <input checked="" type="checkbox"/> demonstrate global and cultural understanding, considering the economy and sustainable development; and <input checked="" type="checkbox"/> identify and apply career and life skills through personal growth and well-being.
Resources	See Below

Lessons	Summary	Resources	Time
Pre-Lesson	Peer Collaboration work	<ul style="list-style-type: none"> - Collaboration Rubric (Used for self and peer) - Group project contract - Project Management Log - Project Work Report - Task Roles document - Peer Collaboration Checklist 	90 min
Field Trip	Visited Anthony Henday Water treatment facility/Dickson Dam	<ul style="list-style-type: none"> - Field Trip Permission Form - Resource people at the Anthony Henday Water Treatment Facility - Resource people at Dickson Dam - Resource people within the transportation department <li style="padding-left: 40px;">Dickson Dam Information Pamphlet (Available at Facility) 	180 min
Lesson 1	Entry Event/Driving Question	<ul style="list-style-type: none"> - Student duo tangs - http://www.insideeducation.ca/Water Presentation - Caring for our Watersheds Workbook: www.CaringForOurWatersheds.com 	45 min



CTF Plan: In Water We Trust

Lesson 2	Inquiry Activity	- Water Water Everywhere Lab	45 min
Lesson 3-4	Visit from local water expert – Water cycle activity	- Joey Temple from the Red Deer Watershed Alliance - Chart Paper / Felts / Markers / Pencil Crayons	90 min
Lesson 5	Visit from local water expert – Watershed activity	- Joey Temple from the Red Deer Watershed Alliance Powerpoint – Do you know your Watershed	45 min
Lesson 6	Visit from local water expert – Contest outline / Proposal work	- Joey Temple from the Red Deer Watershed Alliance - Presentation of Improving our Watershed Contest (Prezi Presentation) - http://prezi.com/gxg7inv_5yaj/red-deer-river-get-creative-for-cash-caring-for-our-watersheds-2012/	45 min
Lesson 7	Proposal work through task completion	- Lesson 1,2,3,4 - Joey Temple from the Red Deer Watershed Alliance - Do you know your Watershed Powerpoint - Group work contract	45 min
Lesson 8	Proposal work through task completion / revision	- Lessons 1,2,3,4,5 - Laptops	45 min
Lesson 9 - 10	Teacher led mini-lesson on water purification	- Student Duotangs - Discovery Education Reverse Osmosis and Distillation video - Reverse Osmosis and Distillation notes - Laptops / iPads	90 min
Lesson 11-12	Scheduled review – water purification / Proposal work	- Reverse Osmosis and Distillation notes - Laptops / iPads / Desktop computers	90 min
Lesson 13-14	Visit from local water expert – Red Deer River water testing	- Red Deer River Water Testing Power Point - Red Deer River Water Testing Document - Joey Temple from the Red Deer Watershed Alliance - Red Deer River Water Sample - Red Deer River Water Testing Materials	90 min
Lesson 15	Proposal work	- Red Deer River Water Testing Power Point - Caring for our Watersheds Workbook:	45 min



Plan: In Water We Trust

		- www.CaringForOurWatersheds.com	
Lesson 16	Gallery walk – Proposal work / Peer feedback and revision	- Felts, Chart paper, Tape	45 min
Lesson 17-18	Proposal work / Revision	- Laptops - Student duotangs - Caring for our Watershed student workbook	90 min
Lesson 19	Visit from local water experts / Proposal work / Revision	- Laptops - Student duotangs - Mentors – Rhyzard K. (City of Red Deer) / Joey Temple (Red Deer Watershed Alliance)	45 min
Lesson 20-21	Proposal work / Revision	- Laptops - Peer editing document	90 min
Lesson 22	Project submission / Celebration	- Collaboration Rubric (Used for self and peer) - Contest Proposal Rubric - http://www.caringforourwatersheds.com/forms/StudentRegistration	45 min