



Grade 6 Science

Goal	Outcome	DCS and ADDITIONAL RESOURCES
Life Science: Diversity of Living Things (DL)	DL6.1 Recognize, describe and appreciate the diversity of living things in local and other ecosystems, and explore related careers.	DCS FIT <u>Lesson Plans</u> <ul style="list-style-type: none"> • Safe Water (Water LP 7) • Safe Water for Wildlife (Water LP 8) • How Important Is Water? (Water LP 9) • Planning Uses For A Local Water Source (Water LP 10) • Water Pollution (DCS online resources www.environmentalsociety.ca) • Biosphere Bottle (Energy LP 14) <u>Audits</u> <ul style="list-style-type: none"> • Hazardous Waste (Waste Audit 2) <u>Campaigns</u> <ul style="list-style-type: none"> • Tree Planting (Energy Campaign 7) • Schoolyard Naturalization (Water/Energy Campaign Example – coming 2011) • Clean Green (Waste Campaign 5) <u>Workshops</u> <ul style="list-style-type: none"> • Schoolyard Naturalization (Yr 3 Workshop) ADDITIONAL RESOURCES <ul style="list-style-type: none"> • Is Climate Change Good For Us? www.greenteacher.com. Online resources • www.saskwastereduction.ca - link to Resources. • www.environmentalsociety.ca -link to Issues-Water- Educational Water Resources for Teachers. • <i>Green Collar Careers, Growing and Eating Green</i>, Ruth Owen
	DL6.4 Examine and describe structures and behaviours that help: - Individual living organisms survive in their environments in the short term. - Species of living organisms adapt to their environments in the long term.	

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Grade 6 Science (Continued)

Goal	Outcome	DCS and ADDITIONAL RESOURCES
Physical Science: Understanding Electricity (EL)	EL6.1 Assess personal, societal, economic, and environmental impacts of electricity use in Saskatchewan and propose action to reduce those impacts.	DCS FIT <u>Lesson Plans</u> <ul style="list-style-type: none"> • Steam Energy (Energy LP 4) • Energy Origins (Energy LP 6) • Passive Solar Heating Models (Energy LP 7) • Check It Out Energy Quiz (Energy LP 8) • Learning Basic Energy Concepts (Energy LP 9) • Energy Choices for a New Community (Energy LP 10) • Heating Our Homes in the Past 100 Years (Energy LP 11) • Energy For Cars and Busses (Energy LP 12) • The Appliance Explosion (Energy LP 13) • Pro's and Con's of Renewable Energy (DCS online resources www.environmentalsociety.ca) • Carbon Cycle Story (DCS online resources www.environmentalsociety.ca) • Energy Myths (DCS online resources www.environmentalsociety.ca) <u>Audits</u> <ul style="list-style-type: none"> • Lighting (Energy Audit 4) • Kitchen and Lunch Room Appliances (Energy Audit 6) • Office Equipment and Computers (Energy Audit 7) • Home Energy (Energy Audit 8) <u>Campaigns</u> <ul style="list-style-type: none"> • Lights Off (Energy Campaign 1) • Turn It Off – Office Equipment (Energy Campaign 4) • Turn It Off – Computer Equipment (Energy Campaign 5) • Turn It Off – Electrical Devices (Energy Campaign 6) <u>Workshops</u> <ul style="list-style-type: none"> • Energy Mapping LP (Yr 1 Technical Workshop) • Wind Power and Solar Power (Year End Events)

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Grade 6 Science (Continued)

	EL6.1 continued	ADDITIONAL RESOURCES <ul style="list-style-type: none">• www.saskpower.com SaskPower Eneraction• Energy and Environment workbook (Shand Greenhouse)• www.environmentalsociety.ca - link to power generation options.• http://tonto.eia.doe.gov/kids Energy Kids• www.re-energy.ca• City of Saskatoon Power Generation Initiatives www.saskatoon.ca Departments, Utility Services, Saskatoon Light and Power, Power Generation Initiatives
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Grade 7 Science

Goal	Outcome	DCS and ADDITIONAL RESOURCES
Life Science: Interactions within Ecosystems (IE)	IE7.2 Observe, illustrate, and analyze living organisms within local ecosystems as part of interconnected food webs, populations, and communities.	DCS FIT <u>Lesson Plans</u> <ul style="list-style-type: none"> Biosphere Bottle (Energy LP 14) How Important Is Water? (Water LP 9) Planning Uses For A Local Water Source (Water LP 10) <u>Audits</u> <ul style="list-style-type: none"> Recycling Programs (Waste Audit 1) <u>Campaigns</u> <ul style="list-style-type: none"> Tree Planting (Energy Campaign 7) Composting (Waste Campaign 2) Garbage Free Lunch (Waste Campaign 1) Don't Trash It—Recycle It (Waste Campaign 3) Double Your Paper (Waste Campaign 4) <u>Workshops</u> <ul style="list-style-type: none"> Schoolyard Naturalization (Yr 3 Advanced Lifestyle Workshop) Composting and Recycling (Yr1 Lifestyle and Yr2 Retraining Workshops) ADDITIONAL RESOURCES <ul style="list-style-type: none"> www.recyclesaskatchewan.ca link to For SK Schools Organizations which support scientific research related to ecosystems: <ul style="list-style-type: none"> www.environmentalsociety.ca. www.pembina.org www.green-street.ca
	IE7.3 Evaluate biogeochemical cycles (water, carbon, and nitrogen) as representations of energy flow and the cycling of matter through ecosystems.	
	IE7.4 Analyze how ecosystems change in response to natural and human influences, and propose actions to reduce the impact of human behaviour on a specific ecosystem.	

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Grade 7 Science (Continued)

Goal	Outcome	DCS and ADDITIONAL RESOURCES
Physical Science: Mixtures and Solutions (MS)	MS7.2 Investigate methods of separating the components of mechanical mixtures and solutions, and analyze the impact of industrial and agricultural applications of those methods.	DCS FIT <u>Lesson Plans</u> <ul style="list-style-type: none">• How Does Water Move Through A Watershed (Water LP 15)• Landfill Demonstration (DCS online resources www.environmentalsociety.ca) <u>Audits</u> <ul style="list-style-type: none">• Recycling Programs (Waste Audit 1)• Home Waste Audit (Waste Audit 3) <u>Campaigns</u> <ul style="list-style-type: none">• Garbage Free Lunch (Waste Campaign 1)• Composting (Waste Campaign 2)• Double Your Paper (DCS Waste Campaign 4)• Don't Trash It—Recycle It (Waste Campaign 3) <u>Workshops</u> <ul style="list-style-type: none">• Stewardship Programs (Yr 1 Lifestyle Workshop)• Water (Yr End Event) ADDITIONAL RESOURCES <ul style="list-style-type: none">• www.recyclesaskatchewan.ca. link to For SK Schools• www.saskwastereduction.ca - link to Resources.

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Grade 7 Science (Continued)

Goal	Outcome	DCS and ADDITIONAL RESOURCES
Physical Science: Heat and Temperature (HT)	HT7.1 Assess the impact of past and current heating and cooling technologies related to food, clothing, and shelter on self, society, and the environment.	DCS FIT <u>Lesson Plans</u> <ul style="list-style-type: none">• Passive Solar Heating Models (Energy LP 7)• Heating our Homes in the Past 100 Years. (Energy LP 11) <u>Audits</u> <ul style="list-style-type: none">• Heating, Ventilating and Air Conditioning (Energy Audit 1)• Draft-proofing (Energy Audit 2)• Domestic Hot Water Systems (Energy Audit 3)• Home Energy (Energy Audit 8) <u>Workshops</u> <ul style="list-style-type: none">• Home Heating and Energy Saving Technologies (Yr 1 Technical and Yr 2 Retraining Workshops)• Model Solar Houses and Solar Ovens (Solar Year End Event) ADDITIONAL RESOURCES <ul style="list-style-type: none">• www.saskenergy.com — link to EnerGuide for houses• Natural Gas- the Natural Choice (in DCS Resource Manual)• Natural Gas Story (Poster Format)-(in DCS Resource Manual)• <i>Green Collar Careers, Building Green Places</i>, Ruth Owen• www.verecohome.com

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Grade 7 Science (Continued)

Goal	Outcome	DCS and ADDITIONAL RESOURCES
Earth and Space Science: Earth's Crust and Resources (EC)	EC7.1 Analyze societal and environmental impacts of historical and current catastrophic geological events, and scientific understanding of movements and forces within Earth's crust.	DCS FIT <u>Lesson Plans</u> <ul style="list-style-type: none"> Planning Uses For A Local Water Source (Water LP 10) <u>Campaigns</u> <ul style="list-style-type: none"> Composting (Waste Campaign 2) Schoolyard Naturalization (Water/Energy Campaign Example – coming 2011) <u>Workshops</u> <ul style="list-style-type: none"> Composting (Yr 1 Lifestyle Workshop) Schoolyard Naturalization (Yr 3 Advanced Lifestyle Workshop) Climate Change (Yr 3 Advanced Lifestyle Workshop) ADDITIONAL RESOURCES <ul style="list-style-type: none"> Is Climate Change Good For Us? www.greenteacher.com. Online resources. Environmental concerns for open pit mining and suggested solutions – <ul style="list-style-type: none"> www.environmentalsociety.ca - link resources to press releases www.greenteacher.com - Teaching Green - The Middle Years. "Where Do You Stand?" Online resources.
	EC7.2 Identify locations and processes used to extract Earth's geological resources and examine the impacts of those locations and processes on society and the environment	
	EC7.3 Investigate the characteristics and formation of the surface geology of Saskatchewan, including soil, and identify correlations between surface geology and past, present, and possible future land uses.	





Grade 8 Science

Goal	Outcome	DCS and ADDITIONAL RESOURCES
Physical Science: Optics and Vision (OP)	OP8.1 Analyze the characteristics of cells, and compare structural and functional characteristics of plant and animal cells.	DCS FIT <u>Lesson Plans</u> <ul style="list-style-type: none">Energy Myths (DCS online resources www.environmentalsociety.ca) <u>Audits</u> <ul style="list-style-type: none">Lighting (Energy Audit 4) <u>Campaigns</u> <ul style="list-style-type: none">Lights Off (Energy Campaign 1) <u>Workshops</u> <ul style="list-style-type: none">Lighting, Occupancy Sensors (Yr 1 Technology Workshop)Solar Year End Event. ADDITIONAL RESOURCES <ul style="list-style-type: none">www.re-energy.ca (Build A Solar Oven)
	OP8.4 Evaluate the impact of electromagnetic radiation-based technologies on self and community.	DCS FIT <u>Lesson Plans</u> <ul style="list-style-type: none">The Appliance Explosion (Energy LP 13) <u>Audits</u> <ul style="list-style-type: none">Kitchen and Lunchroom Appliances (Energy Audit 6)Office Equipment and Computers (Energy Audit 7)

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Grade 8 Science (Continued)

Goal	Outcome	DCS AND ADDITIONAL RESOURCES
Earth and Space Science: Water Systems on Earth (WS)	WS8.1 Analyze the impact of natural and human-induced changes to the characteristics and distribution of water in local, regional, and national ecosystems.	DCS FIT <u>Lesson Plans</u> <ul style="list-style-type: none"> How Important Is Water? (Water LP 9) Planning Uses For A Local Water Source (Water LP 10) Why Do Canadians Use So Much Water? (Water LP 11) Saving Water: What A Difference It Makes (Water LP 14) (Partner with grade 2) How Does Water Move Through A Watershed (Water LP 15) Water Pollution (DCS online resources www.environmentalsociety.ca) Price of Water (DCS online resources www.environmentalsociety.ca) Global Water Scarcity (DCS online resources www.environmentalsociety.ca) Water Treatment Workshop (DCS online resources www.environmentalsociety.ca) Water Quick Facts (DCS online resources www.environmentalsociety.ca) <u>Audits</u> <ul style="list-style-type: none"> Home Water (Water Audit 4) <u>Workshops</u> <ul style="list-style-type: none"> Water Stations (Yr 1 Technical and Lifestyle Workshops) Climate Change (Yr 3 Advanced Lifestyle Workshop) ADDITIONAL RESOURCES <ul style="list-style-type: none"> Is Climate Change Good For Us? www.greenteacher.com. Online resources. Identify threats to surface and/or ground water systems in Saskatchewan. <ul style="list-style-type: none"> www.environmentalsociety.ca- link to Issues – Water - Educational Water Resources for Teachers. www.swa.ca -Saskatchewan Watershed Authority. www.recyclesaskatchewan.ca. link to For SK Schools
	WS8.2 Examine how wind, water, and ice have shaped and continue to shape the Canadian Landscape.	
	WS8.3 Analyze natural factors and human practices that affect productivity and species distribution in marine and fresh water environments.	



Grade 9 Science

Goal	Outcome	DCS and ADDITIONAL RESOURCES
Physical Science: Atoms and Elements (AE)	AE9.1 Distinguish between physical and chemical properties of common substances, including those found in household, commercial, industrial, and agricultural applications.	DCS FIT <u>Lesson Plans</u> <ul style="list-style-type: none">• Recipes for a Cleaner Planet (DCS online resources www.environmentalsociety.ca)• Household Hazardous Waste (DCS online resources www.environmentalsociety.ca) <u>Audits</u> <ul style="list-style-type: none">• Hazardous Waste (Waste Audit 2) <u>Campaigns</u> <ul style="list-style-type: none">• Clean and Green (Waste Campaign 5) <u>Workshops</u> <ul style="list-style-type: none">• Clean and Green (Yr 3 Advanced Lifestyle Workshop) ADDITIONAL RESOURCES <ul style="list-style-type: none">• www.saskwastereduction.ca - link to Hazardous Waste.

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Grade 9 Science (Continued)

Goal	Outcome	DCS and ADDITIONAL RESOURCES
Physical Science: Characteristics of Electricity (CE)	CE9.3 Assess operating principles, costs, and efficiencies of devices that produce or use electrical energy.	DCS FIT <u>Lesson Plans</u> <ul style="list-style-type: none"> The Appliance Explosion (Energy LP 13) Pro's and Con's of Renewable Energy (DCS online resources www.environmentalsociety.ca) <u>Audits</u> <ul style="list-style-type: none"> Kitchen and Lunchroom Appliances (DCS Energy Audit 6) Office Equipment and Computers (Energy Audit 7) <u>Campaigns</u> <ul style="list-style-type: none"> Lights Off (Energy Campaign 1) Turn It Off – Office Equipment (Energy Campaign 4) Turn It Off – Computer Equipment (Energy Campaign 5) Turn It Off – Electrical Devices (Energy Campaign 6) <u>Workshops</u> <ul style="list-style-type: none"> Energy Saving Technologies (Yr 2 Retraining Workshop) Energy Mapping (Yr 1 Technical Workshop) Lighting Station (Yr 1 Technical Workshop) Occupancy Sensors (Yr 1 Technical Workshop) Wind Power and Solar Power (Yr end events) Climate Change (Yr 3 Advanced Lifestyle Workshop) ADDITIONAL RESOURCES <ul style="list-style-type: none"> www.saskpower.com www.pembina.org -Is Saskatchewan's Future Renewable? By Tim Weis. City of Saskatoon Power Generation Initiatives www.saskatoon.ca Departments, Utility Services, Saskatoon Light and Power, Power Generation Initiatives
	CE9.4 Critique impacts of past, current, and possible future methods of small and large scale electrical energy production and distribution in Saskatchewan.	