



York Children's Water Festival Activity Curriculum Connections

This document details activity messaging connections to Ontario Education curriculum expectations.

Accessible formats or communication supports are available upon request.

Contact: [Environmental Services](#) reception at 905-830-4444 extension 73000.

ACTIVITY	DESCRIPTION	CURRICULUM LINKS
2Xs A DAY	In a simulation students will have the opportunity to examine brushing their teeth and comparing water consumption using a variety of techniques. How much water can you save 2Xs a day?	<p><i>Measurement, Grade 4 (Attributes, Units & Measurement)</i></p> <ul style="list-style-type: none"> ◆ Estimate, measure and record the capacity of containers using standard units. ◆ Estimate, measure and represent time intervals to the nearest minute. <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1]
ABORIGINAL VOICES	Our First Nations existed here long before European settlement. They had and still have a very special relationship with the environment. Students gather to listen to some of the history and legacy of the First Nations peoples and the importance of the natural environment to their various cultural beliefs and practices. Chief Top Leaf presents this activity. He is an engaging and knowledgeable+ speaker.	<p><i>Heritage and Citizenship, Grade 5 (Early Civilizations)</i></p> <ul style="list-style-type: none"> ◆ Investigate the influence of the natural environment on the development of various early civilizations around the world. ◆ Identify and compare the ways in which people in various early civilizations met their physical and social needs. ◆ Show how innovations made by various early civilizations have influenced the modern world.
A-MAZE-ING WATER TREATMENT	Students will move through the playground equipment as pretend water drops to simulate a water treatment plant. They will be able to relate to the process of conventional water treatment for human consumption. They will learn to appreciate the amount of energy that must be put into the production of each drop of clean water we receive from our taps.	<p><i>Canada and World Connections, Grade 4 (Canada's Provinces, Territories, and Regions)</i></p> <ul style="list-style-type: none"> ◆ Explain how the St. Lawrence River and the Great Lakes systems shape or influence the human activity of their surrounding area (e.g., transportation, industry, recreation). <p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which humans are dependent on natural habitats and communities. [3.10] <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the immediate and long-term effects of energy and resource use on society and the environment, and evaluate options for conserving energy and resources. [Overall]

BIG FOOT	Students will answer questions based on their water habits and discover how water and energy efficient their daily routines are.	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Analyze the positive and negative impacts of human interactions with natural habitats and communities. [1.1] ◆ Describe ways in which humans are dependent on natural habitats and communities. [3.10] <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1]
BUCKET BRIGADE	<p>Fire! Students must work together using a historic method of putting out fires.</p> <p>They also have the opportunity to talk to local fire fighters and see modern fire fighting technology such as fire trucks and fire hoses.</p>	<p><i>Heritage and Citizenship, Grade 5 (Early Civilizations)</i></p> <ul style="list-style-type: none"> ◆ Identify and compare the ways in which people in various early civilizations met their physical and social needs. ◆ Show how innovations made by various early civilizations have influenced the modern world.
CANADA COAST TO COAST	Water can be used in many ways other than in the home. This activity will teach students that although Canada is fortunate enough to be surrounded mostly by water, it should not be wasted. Students will help identify parts of Canadian water geography and he many animals that also depend on our water for their habitat.	<p><i>Canada and World Connections, Grade 4 (Canada's Provinces, Territories, and Regions)</i></p> <ul style="list-style-type: none"> ◆ Locate on a map of Ontario and label the Great Lakes and other major bodies of water and waterways. <p><i>Life Systems, Grade 4 (Habitat and Communities)</i></p> <ul style="list-style-type: none"> ◆ Investigate the interdependence of plants and animals within specific habitats and communities. [Overall] ◆ Demonstrate an understanding of the concepts of habitat and community; and identify the factors that could affect habitats and communities of plants and animals. [Overall, 3.3]

CYCLE-PATH	<p>Students imagine themselves as water droplets moving through the watershed. See what water picks up as it travels. Work backwards as a detective to find out where the different materials would be found in a real watershed.</p>	<p><i>Canada and World Connections, Grade 4 (Canada's Provinces, Territories, and Regions)</i></p> <ul style="list-style-type: none"> ◆ Explain how the St. Lawrence River and the Great Lakes systems shape or influence the human activity of their surrounding area (e.g., transportation, industry, recreation). <p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental]
DOWN THE SEWER	<p>Students discuss the effects of dumping household hazardous wastes in the storm sewer or down the drains inside the home. Students are encouraged to link the results of their actions with pollution and its effects on other living things.</p>	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental] <p><i>Life Systems, Grade 5 (Human Organ Systems)</i></p> <ul style="list-style-type: none"> ◆ Assess the effects of environmental factors on human health, and propose ways to reduce their harmful effects (e.g., water pollution from sewage or other human contaminants and how these affect our health). [1.1]
DRIP DRIP DRIP...(DISPLAY)		<p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1] ◆ Evaluate the effects of various technologies on energy consumption, and propose ways in which individuals can improve energy conservation. [1.2]

EAGLE SURVIVOR	Students act out the role of an eagle hunting for fish. They learn about how eagles cannot distinguish between healthy and unhealthy fish and how chemicals can build up within an ecosystem.	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Plants and animals are interdependent and are adapted to meet their needs from the resources available in their particular habitats. [Fundamental] ◆ Analyze the positive and negative impacts of human interactions with natural habitats and communities, taking different perspectives into account and evaluate way of minimizing the negative impacts. [1.1]
ENVIRO-TWISTERS	In this activity, students will learn the basic human survival needs and experience a shortage in one or more of food, water, air and shelter. Students will discover how humans depend on natural resources and how their behaviour can impact the quality and abundance our natural resources.	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental] ◆ Analyze the effects of human activities on natural habitats and communities (e.g., pollution in water body). [Overall, 1.1] <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the immediate and long-term effects of energy and resource use on society and the environment, and evaluate options for conserving energy and resources. [Overall]
EVERY LITTLE BIT HELPS	On a hot day in the summer, the water consumption in York Region can increase to double that of an average day due to lawn watering. Students examine different techniques for lawn watering that will save water. The significance of an abundant water supply to people attitudes and habits is also discussed. What's the best type of sprinkler? How do I know when my lawn has had enough water? Do we have a lot of water in southern Ontario? How can we best use that water supply?	<p><i>Canada and World Connections, Grade 4 (Canada's Provinces, Territories, and Regions)</i></p> <ul style="list-style-type: none"> ◆ Explain how the St. Lawrence River and the Great Lakes systems shape or influence the human activity of their surrounding area (e.g., transportation, industry, recreation). <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1] ◆ Evaluate the effects of various technologies on energy consumption, and propose ways in which individuals can improve energy conservation. [1.2]

FLOWER POWER	Students will learn about water-efficient gardening and the importance of native plants. They will also learn about the role that soil composition, mulch and plant cover play in water conservation in the garden.	<p><i>Life Systems, Grade 3 (Growth and Changes in Plants)</i></p> <ul style="list-style-type: none"> ◆ Assess the impact of different human activities on plants, and list personal actions they can engage in to minimize harmful effects and enhance good effects. [1.2] <p><i>Life Systems, Grade 4 (Habitat and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental] <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the immediate and long-term effects of energy and resource use on society and the environment, and evaluate options for conserving energy and resources. [Overall]
FOREST SPONGE	Students will learn about the role of trees in the water cycle, and their contribution to healthy groundwater. In a hands-on activity, students will be given the opportunity to explore a forest woodlot to discover what makes up the forest sponge. Students will discuss how a tree transports water from roots to leaves, and observe trees releasing water from their leaves. Students will identify how the roots of trees help reduce erosion to create healthy waterways and habitats.	<p><i>Earth and Space Systems, Grade 3 (Soils in the Environment)</i></p> <ul style="list-style-type: none"> ◆ Assess the impact of human action on soils, and suggest ways in which humans can affect soils positively and/or lessen or prevent harmful effects on soil (e.g., soil erosion). [1.2] <p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental] ◆ Investigate the interdependence of plants and animals within specific habitats and communities. [Overall]
FULL HEAD OF STEAM	At this activity students will see a working model of a steam-powered engine. It is used to illustrate the changes in state of water according to the addition of heat.	<p><i>Canada and World Connections, Grade 4 (The Provinces and Territories of Canada)</i></p> <ul style="list-style-type: none"> ◆ Identify Ontario's major natural resources and their uses (e.g., water for hydroelectricity and recreation). <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Demonstrate an understanding of the various forms and sources of energy and the ways in which energy can be transformed and conserved. [Overall] ◆ Identify renewable and non-renewable sources of energy. [3.2] <p><i>Matter and Energy, Grade 5 (Properties of and Changes in Matter)</i></p> <ul style="list-style-type: none"> ◆ Explain changes of state in matter. [3.3]

GO WITH THE FLOW	<p>Students simulate daily household routines and evaluate the impacts of their everyday actions on the environment. They investigate the rate of water flow, discover simple home water saving technologies and hypothesize about the impacts these technologies have on the environment.</p>	<p><i>Measurement, Grade 4 (Attributes, Units & Measurement)</i></p> <ul style="list-style-type: none"> ◆ Estimate, measure and record the capacity of containers using standard units. ◆ Estimate, measure and represent time intervals to the nearest minute. ◆ Solve problems related to their day to day environment using measurement and estimation. <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the immediate and long-term effects of energy and resource use on society and the environment, and evaluate options for conserving energy and resources. [Overall] ◆ Evaluate the effects of various technologies on energy consumption, and propose ways in which individuals can improve energy conservation. [1.2]
HAZARD A GUESS	<p>Students learn about sources of hazardous waste and how to prevent contamination through an interactive model and discussion. The key messages discussed will centre on potential sources and problems of hazardous waste contamination, how to clean up hazardous waste sites and how to prevent hazardous waste sites from effecting the environment.</p>	<p><i>Energy Space Systems, Grade 4 (Rocks, Minerals)</i></p> <ul style="list-style-type: none"> ◆ Assess the social and environmental costs and benefits of using objects in the built environment that are made from rocks and minerals. [1.1] <p><i>Life Systems, Grade 4 (Habitat and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental] ◆ Demonstrate an understanding of the concepts of habitat and community; and identify the factors that could affect habitats and communities of plants and animals. [Overall, 3.3]
HEALTHY STREAMS...HAPPY PEOPLE	<p>Students learn about the interconnections in an aquatic ecosystem and the benefits of keeping our streams healthy through an interactive puzzle and discussion.</p>	<p><i>Canada and World Connections, Grade 4 (Canada's Provinces, Territories, and Regions)</i></p> <ul style="list-style-type: none"> ◆ Identify Ontario's major natural resources and their uses (e.g., water for hydroelectric and recreation). <p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Investigate the dependency of plants and animals on their habitat and the interrelationships of the plants and animals living in a specific habitat. [Overall]

<p>HOW MUCH WATER DOES IT TAKE TO PRODUCE...?</p>	<p>How much water does it take to produce the goods we use everyday? Students play an interactive game that teaches them about the amounts of water it can take to produce items such as cars, newspapers, eggs etc. They also learn about the importance of water in the industrial processes behind the making of these items and the role of the Great Lakes in Canadian industry.</p>	<p><i>Canada and World Connections, Grade 4 (Canada's Provinces, Territories, and Regions)</i></p> <ul style="list-style-type: none"> ◆ Explain how the St. Lawrence River and the Great Lakes systems shape or influence the human activity of their surrounding area (e.g., transportation, industry, recreation). <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the immediate and long-term effects of energy and resource use on society and the environment, and evaluate options for conserving energy and resources. [Overall]
<p>HOW WATER WORKS</p> <p>*Activity provided by OMM</p>	<p>Come and see how much of your town's water system works. When you brush your teeth or water your lawn, you use the water from the water tower. This is treated water and we should try and conserve it. This is a working model and should be seen by everyone.</p>	<p><i>Life Systems, Grade 4 (Habitat and Communities)</i></p> <ul style="list-style-type: none"> ◆ Demonstrate an understanding of the concepts of habitat and community; and identify the factors that could affect habitats and communities of plants and animals. [Overall, 3.3] <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1]
<p>LATHER UP</p>	<p>How much water do we use for a 5-minute shower? Students compare bathing methods of early civilizations to modern methods discussing the differences in cultural practices.</p> <p>Even modern methods are not the same when it comes to water consumption. What can we do to save water when having a shower? Students enter a model shower to see the difference when a simple technological water-saving device is employed.</p>	<p><i>Measurement, Grade 4 (Attributes, Units & Measurement)</i></p> <ul style="list-style-type: none"> ◆ Estimate, measure and record the capacity of containers using standard units. ◆ Estimate, measure and represent time intervals to the nearest minute. ◆ Solve problems related to their day to day environment using measurement and estimation. <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1] ◆ Evaluate the effects of various technologies on energy consumption (e.g., low flow shower heads), and propose ways in which individuals can improve energy conservation. [1.2]

<p>MOVING THROUGH THE MORaine</p>	<p>At this activity, students will learn about the Oak Ridges Moraine and discover the different hydrological, geological and environmental features that define the moraine and the movement underground.</p>	<p><i>Life Systems, Grade 4 (Habitat and Communities)</i></p> <ul style="list-style-type: none"> ◆ Demonstrate an understanding of the concepts of habitat and community; and identify the factors that could affect habitats and communities of plants and animals. [Overall, 3.3] ◆ Analyze the positive and negatives aspects of human interactions with natural habitats and communities and evaluate ways of minimizing the negative impacts. [1.1] ◆ Investigate ways in which plants and animals in a community depend on features of their habitat to meet important needs. [2.3]
<p>NEATO DEETO NO MORE MOSQUITO</p> <p>*Activity provided by York Region's Health Services Department.</p>	<p>Students learn about the life cycle of a mosquito, the place of mosquitoes in ecosystems and the relationship between humans, mosquitoes and the West Nile Virus through an interactive display and discussion.</p>	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental] ◆ Analyze the positive and negative impacts of human interactions with natural habitats and communities (e.g., urban development forces some species to go elsewhere and enables other species to multiply too rapidly; conservation areas can be established to protect specific habitats). [1.1]
<p>NO WATER OFF A DUCK'S BACK</p>	<p>Students take the role of wildlife biologists observing feathers when they are wet, dry or soaked in oil and giving oral descriptions of their observations. Students are encouraged to think about ordinary actions, such as pouring used oil or other contaminants down road sewers or household drains and how these could cause pollution, which endangers wildlife habitats and damages ecosystems.</p>	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Recognize that plants and animals are interdependent and are adapted to meet their needs from the resources available in their particular habitats. [Fundamental] ◆ Identify reasons for the depletion or extinction of a plant or animal species (e.g., ducks will not be able to float, swim or maintain their proper body temperature if their feathers are altered due to pollution, they also lose their natural habitat and will die). [1.2]

OFF I GO	<p>As in early civilizations, people in some parts of the world have to walk for hours to fetch water for the family's daily use. In this team relay, student's race through an obstacle course with a bucket of water to experience what it is like for people on their water fetching journeys.</p>	<p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1] <p><i>Heritage and Citizenship, Grade 5 (Early Civilizations)</i></p> <ul style="list-style-type: none"> ◆ Investigate the influence of the natural environment on the development of various early civilizations around the world. ◆ Identify and compare the ways in which people in various early civilizations met their physical and social needs.
OIL SLICK	<p>What happens when oil is spilled in a natural habitat? Students use a model to see how real oil and water mix (or don't) and how the animals' habitats, including vegetation, are adversely affected. They use oral descriptions to relay their observations and pose questions about the results of an oil spill and discuss why prevention is a better strategy than remediation.</p>	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental] ◆ Demonstrate an understanding of the concepts of habitat and community, and identify the factors that could affect habitats and communities of plants and animals. [Overall, 3.3]
PIONEER WATER RACE	<p>Students will be encouraged to examine the importance of water to the survival and success of early civilizations. Taking a trip back in time, students can investigate how farm buildings were located near a water source, how people obtained the water needed for animals and the family and how much water was required. Discover hand power and the role of the child in these families. Help us fetch a bucket!</p>	<p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1] <p><i>Heritage and Citizenship, Grade 5 (Early Civilizations)</i></p> <ul style="list-style-type: none"> ◆ Investigate the influence of the natural environment on the development of various early civilizations around the world. ◆ Identify and compare the ways in which people in various early civilizations met their physical and social needs.

<p>POINT IT OUT</p>	<p>Students use a model to understand the concepts of point versus non-point source pollution. There is a discussion about the impacts urbanization on a local ecosystem, habitat for plants and animals, and the characteristics of rural communities. Students are encouraged to relate the model to their own community and identify local sources of pollution, including those that come from actions of those around them such as pesticides on lawns.</p>	<p><i>Earth and Space Systems, Grade 3 (Soils in the Environment)</i></p> <ul style="list-style-type: none"> ◆ Assess the impact of human action on soils, and suggest ways in which humans can affect soils positively and/or lessen or prevent harmful effects on soils. [1.2] <p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Analyze the positive and negative impacts of human interactions with natural habitats and communities (e.g., urban development forces some species to go elsewhere and enables other species to multiply too rapidly; conservation areas can be established to protect specific habitats). [1.1] <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1]
<p>POROSITY & PERMEABILITY</p>	<p>Porosity and permeability are the key factors in determining how water moves through or is held by the earth's surface materials. Using a model with varying sizes of stones or earth particles students see first hand how size of particle makes a difference in the time it takes for water to move through the soil.</p>	<p><i>Earth and Space Systems, Grade 3 (Soils in the Environment)</i></p> <ul style="list-style-type: none"> ◆ Assess the impact of soils on society and the environment, and suggest ways in which humans can enhance positive effects and/or lessen or prevent harmful effects. [1.1] ◆ Identify and describe the different types of soils. [3.1] <p><i>Life Systems, Grade 4 (Habitat and Communities)</i></p> <ul style="list-style-type: none"> ◆ Demonstrate an understanding of the concepts of habitat and community; and identify the factors that could affect habitats and communities of plants and animals. [Overall, 3.3]
<p>ROYAL FLUSH</p>	<p>How does a toilet work? Students examine how the mechanism in an ordinary household device works and the difference between water-saver toilets and regular-flow toilets. How does the required amount of water come back every time?</p>	<p><i>Measurement, Grade 4 (Attributes, Units & Measurement)</i></p> <ul style="list-style-type: none"> ◆ Estimate, measure and record the capacity of containers using standard units. ◆ Estimate, measure and represent time intervals to the nearest minute. <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1] ◆ Evaluate the effects of various technologies on energy consumption (e.g., low flow toilets), and propose ways in which individuals can improve energy conservation efforts. [1.2]

SAVE THE WETLAND	<p>Students will learn about the functions and values of wetlands, how we affect wetlands and how we can restore wetlands through an interactive model and discussion.</p>	<p><i>Life Systems, Grade 4 (Habitat and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental] ◆ Investigate the interdependence of plants and animals within specific habitats and communities. [Overall]
<p>SAY GLOW TO GERMS</p> <p>*Activity provided by York Region's Health Services Department.</p>	<p>Students will learn about proper hand washing techniques and how various diseases are spread through contaminated water and unsanitary conditions.</p>	<p><i>Life Systems, Grade 5 (Human Organ Systems)</i></p> <ul style="list-style-type: none"> ◆ Assess the effects of environmental factors on human health, and propose ways to reduce their harmful effects and take advantage of those that are beneficial. [1.1] ◆ Investigate the structure and function of the major organs of various human body systems (e.g., skin - acts as a defense against infections). [Overall]
SEPTIC SIGHTS	<p>Watch water trickle through the sewage pipes into the septic bed in a rural wastewater scenario. Where do the wastewater and solid wastes go if one is not connected to the municipal wastewater system?</p>	<p><i>Life Systems, Grade 5 (Human Organ Systems)</i></p> <ul style="list-style-type: none"> ◆ Assess the effects of environmental factors on human health, and propose ways to reduce their harmful effects (e.g., water pollution from sewage or other human contaminants and how these affect our health). [1.1]
SIMPLY DIVINE	<p>What would people do if they were not living near a river or lake? How would they be able to find water below the surface of the ground? Students will learn the secret to how they often found water through a "water finding" experiment and by posing questions and using oral descriptions to relay their observations. How do we find water today? Do you have what it takes to be a "dowser" or "Water Witch"?</p>	<p><i>Heritage and Citizenship, Grade 5 (Early Civilizations)</i></p> <ul style="list-style-type: none"> ◆ Investigate the influence of the natural environment on the development of various early civilizations around the world. ◆ Identify and compare the ways in which people in various early civilizations met their physical and social needs. ◆ Show how innovations made by various early civilizations have influenced the modern world.

<p>SIGNS OF BEACH POLLUTION SOLUTIONS</p> <p>*Activity provided by York Region's Health Services Department.</p>	<p>Students learn to recognize different types of signage used to identify swimming conditions in York Region and sources of beach water pollution.</p>	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Analyze the positive and negative impacts of human interactions with natural habitats and communities (e.g., pollution in a water body). [1.1] <p><i>Life Systems, Grade 5 (Human Organ Systems)</i></p> <ul style="list-style-type: none"> ◆ Assess the effects of environmental factors on human health, and propose ways to reduce their harmful effects (e.g., polluted water can affect drinking water supply and make people sick). [1.1]
<p>TAPS AND DRAINS</p>	<p>This activity is designed to test the students' knowledge of water trivia in a fun, interactive environment. Students will play a game, similar to Snakes and Ladders, where they can move along the large game board and answer questions when they land on squares connected to a pipe. Depending on whether the answer is right or wrong they will flow up the pipe or down the pipe. The team that gets to the end of the game board first is the winning team.</p>	<p>A variety of expectations are addressed.</p>
<p>THE SALMON RUN</p>	<p>Students will learn the life cycle of salmon and the hazards the salmon encounter on their way to spawn. In this activity, students will discover how their actions can impact wildlife and their habitats as well as the environment.</p>	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental] ◆ Recognize that plants and animals are interdependent and are adapted to meet their needs from resources available in their particular habitats (e.g., salmon/bass/ trout need clean fresh water in order to live and to spawn/reproduce). [Fundamental] ◆ Analyze the effects of human activities on natural habitats and communities (e.g., pollution in water body). [Overall, 1.1]

<p>THRILLS AND SPILLS</p>	<p>Students will learn about the value of protecting and conserving our water sources because fresh water is limited. While playing a board game, students learn about simple actions that help to protect water, as well as harmful actions that waste water.</p>	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Analyze the positive and negative impacts of human interactions with natural habitats and communities (e.g., pollution in a water body). [1.1] <p><i>Canada and World Connections, Grade 4 (Canada's Provinces, Territories, and Regions)</i></p> <ul style="list-style-type: none"> ◆ Identify Ontario's major natural resources and their uses (e.g., water for hydroelectric and recreation). <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1] <p><i>Life Systems, Grade 5 (Human Organ Systems)</i></p> <ul style="list-style-type: none"> ◆ Assess the effects of environmental factors on human health, and propose ways to reduce their harmful effects (e.g., polluted water can affect drinking water supply and make people sick). [1.1]
<p>TREATING THE TRASH</p>	<p>How does a modern landfill operate? Students explore for themselves how we treat our trash today and compare this to the unsafe practices that were done in the past. A landfill model provides a breakdown of the different stages of the treatment process and demonstrates the effect on the groundwater if our trash is not disposed of properly.</p>	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental] <p><i>Earth and Space Systems, Grade 5, (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1]

<p>TREEMENDOUS FUN</p>	<p>The students will learn first hand about reforestation. They will learn that the roots of these trees will help stabilize the eroding slopes and riverbanks of Bruce's Mill.</p>	<p><i>Life Systems, Grade 3 (Growth and Changes in Plants)</i></p> <ul style="list-style-type: none"> ◆ Assess ways in which plants are important to humans and other living things, taking different points of view into consideration, and suggest ways in which humans can protect plants. [1.1] ◆ Assess the impact of different human activities on plants, and list personal actions they can engage in to minimize harmful effects and enhance good effects. [1.2] <p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental]
<p>UNITED NATIONS (DISLPAY)</p>		<p><i>Canada and World Connections, Grade 3 (Urban and Rural Communities)</i></p> <ul style="list-style-type: none"> ◆ Compare...access to natural resources in urban and rural communities. ◆ Compare the characteristics of their community to those of a different community. <p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ Demonstrate an understanding of a community as a group of interacting species sharing a common habitat (e.g., humans on Earth).
<p>WATER JEOPARDY</p>	<p>Students will discover various water facts in the subjects of water protection, water conservation, water stewardship, water health and safety, as well as Science and Technology.</p>	<p>A variety of expectations are addressed.</p>

WATER TOTTER	<p>The human body is 65-70% water. In this activity, children will sit on specially calibrated see-saw and will add water on the other side to balance their weight. At the end of the exercise children will be amazed at the amount of water that is in their body.</p>	<p><i>Measurement, Grade 4 (Attributes, Units & Measurement)</i></p> <ul style="list-style-type: none"> ◆ Estimate, measure and record the capacity of containers using standard units. <p><i>Life Systems: Grade 5 (Human Organ Systems)</i></p> <ul style="list-style-type: none"> ◆ Analyze the impact of human activities and technological innovations on human health. [Overall] ◆ Identify interrelationships between body systems. [3.3]
WATER-OPOLY	<p>Create a water cycle as it occurs in nature! Watch water evaporate from ocean surf, fog, clouds and rain formation, and river and melting snow processes – all in front of your eyes. See how the water cycle impacts on our daily lives.</p>	<p><i>Matter and Energy, Grade 5 (Properties of and Changes in Matter)</i></p> <ul style="list-style-type: none"> ◆ Explain changes of state in matter. [3.3]
WELL DONE	<p>Students participating in this well monitoring activity will examine the results of groundwater extraction on the water levels of a nearby well. A discussion on the results of water extraction on habitats and communities as well as renewable resources follows.</p>	<p><i>Earth and Space System, Grade 3 (Soils in the Environment)</i></p> <ul style="list-style-type: none"> ◆ Assess the impact of soils on society and the environment, and of society and the environment on soils. [Overall]. <p><i>Life Systems, Grade 4 (Habitat and Communities)</i></p> <ul style="list-style-type: none"> ◆ Describe ways in which human changes to habitats can affect plants and animals and the relationships between them. [Fundamental] ◆ Analyze the effects of human activities on natural habitats and communities (e.g., depletion or contamination of groundwater resource). [Overall, 1.1] <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1]

<p>WETLAND WONDERLAND</p>	<p>.Set along the banks of Bruce's mill stream, children will travel to different stations and learn about the wildlife that inhabits our streams and how streams are vital to our water eco-system.</p>	<p><i>Life Systems, Grade 4 (Habitats and Communities)</i></p> <ul style="list-style-type: none"> ◆ .Recognize that plants and animals are interdependent and are adapted to meet their needs from resources available in their particular habitats (e.g., the organisms in marshes that need the food, shelter and water for movement provided there). [Fundamental] ◆ .Analyze the positive and negative impacts of human interactions with natural habitats and communities (e.g., urban development threatens wetlands; conservation areas can be established to protect specific habitats such as wetlands). [1.1] ◆ .Describe ways in which humans are dependent on natural habitats and communities (e.g., wetlands filter water and help to keep surface water clean). [3.10]
<p>WONDERFUL WATERSHED</p> <p>*Activity provided by LSRCA</p>	<p>.Our model is a side view of the underground and shows students how pollution can travel underground from one aquifer to another.</p>	<p><i>Canada and World Connections, Grade 4 (Canada's Provinces, Territories, and Regions)</i></p> <ul style="list-style-type: none"> ◆ .Identify Ontario's major natural resources and their uses (e.g., water for hydroelectric and recreation). <p><i>Earth and Space Systems, Grade 4 (Rocks and Minerals)</i></p> <ul style="list-style-type: none"> ◆ .Describe the effects of human activity (e.g., land development) on physical features of the landscape, and examine the use of rocks and minerals in making consumer products. [Fundamental, Overall] ◆ .Determine positive and negative effects of human alteration on the landscape. [Fundamental, Overall] <p><i>Earth and Space Systems, Grade 5 (Conservation of Energy and Resources)</i></p> <ul style="list-style-type: none"> ◆ .Analyze the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts. [1.1]