Grade 5 - Alberta Science Curriculum Connections



Activity Name	Organizing Idea	Learning Outcome
	Energy	Students investigate and compare how forces affect living things and objects in water and air.
Activity: Hot Spot Investigators	Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
	Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.
Activity: School Greening: Investigating Simulator Solutions	Grade 6-12	
	Energy	Students investigate and compare how forces affect living things and objects in water and air.
Activity: Flood Risk Management Awareness	Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
	Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.
Activity: Flood:ED School Greening Simulator	Grade 6-12	
	Energy	Students investigate and compare how forces affect living things and objects in water and air.
Activity: Flooding Mapping Tour	Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
	Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.
	Energy	Students investigate and compare how forces affect living things and objects in water and air.
Activity: Flooding and Climate Change	Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
	Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.
Activity: Climate Change in My Watershed Inquiry	Grade 9-12	
Activity: Extreme Weather Inquiry	Grade 9-12	
Activity: Runoff Footprint	Matter	Students investigate the particle model of matter in relation to the physical properties of solids, liquids, and gases.
	Energy	Students investigate and compare how forces affect living things and objects in water and air.
	Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
	Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.

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Energy	Students investigate and compare how forces affect living things and objects in water and air.
Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.
Energy	Students investigate and compare how forces affect living things and objects in water and air.
Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.
Energy	Students investigate and compare how forces affect living things and objects in water and air.
Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
Energy	Students investigate and compare how forces affect living things and objects in water and air.
Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.
Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.
Grade 8-12	
Grade 8-12	
Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.
Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.
Grade 8-12	
Energy	Students investigate and compare how forces affect living things and objects in water and air.
Earth Systems	Students analyze climate and connect it to weather conditions and agricultural practices.
Scientific Methods	Students investigate how evidence is gathered and explain the importance of ethics in science.
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Grade 6 - Alberta Science Curriculum Connections



tudents analyze forces and relate them to interactions between objects. tudents investigate climate, changes in climate, and the impact of climate change on Earth. tudents investigate and describe the role of explanation in science. tudents analyze forces and relate them to interactions between objects.
tudents investigate climate, changes in climate, and the impact of climate change on Earth. tudents investigate and describe the role of explanation in science.
tudents investigate and describe the role of explanation in science.
tudents analyze forces and relate them to interactions between objects.
tudents investigate climate, changes in climate, and the impact of climate change on Earth.
tudents investigate and describe the role of explanation in science.
tudents analyze forces and relate them to interactions between objects.
tudents investigate climate, changes in climate, and the impact of climate change on Earth.
tudents investigate and describe the role of explanation in science.
tudents analyze forces and relate them to interactions between objects.
tudents investigate climate, changes in climate, and the impact of climate change on Earth.
tudents examine abstraction in relation to design and coding and describe impacts of technologies.
tudents investigate and describe the role of explanation in science.
tudents analyze forces and relate them to interactions between objects.
tudents investigate climate, changes in climate, and the impact of climate change on Earth.
tudents investigate and describe the role of explanation in science.
tudents analyze forces and relate them to interactions between objects.
tudents investigate climate, changes in climate, and the impact of climate change on Earth.
tudents investigate climate, changes in climate, and the impact of climate change on Earth. tudents investigate and describe the role of explanation in science.
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Activity: Extreme Weather Inquiry	Grade 9-12	
	Matter	Students investigate how particles of matter behave when heated or cooled and analyze effects on solids, liquids, and gases.
Activity: Runoff Footprint	Energy	Students analyze forces and relate them to interactions between objects.
	Earth Systems	Students investigate climate, changes in climate, and the impact of climate change on Earth.
	Scientific Methods	Students investigate and describe the role of explanation in science.
	Energy	Students analyze forces and relate them to interactions between objects.
Activity: Understand Flooding	Earth Systems	Students investigate climate, changes in climate, and the impact of climate change on Earth.
	Scientific Methods	Students investigate and describe the role of explanation in science.
	Energy	Students analyze forces and relate them to interactions between objects.
Activity: What are Floodplains and Watersheds?	Earth Systems	Students investigate climate, changes in climate, and the impact of climate change on Earth.
	Scientific Methods	Students investigate and describe the role of explanation in science.
Activity of Flood Position of Plan for Very Calcol	Energy	Students analyze forces and relate them to interactions between objects.
Activity: Flood Resilience Plan for Your School	Earth Systems	Students investigate climate, changes in climate, and the impact of climate change on Earth.
	Energy	Students analyze forces and relate them to interactions between objects.
Activity: Preparing for Flood Resilience	Earth Systems	Students investigate climate, changes in climate, and the impact of climate change on Earth.
	Scientific Methods	Students investigate and describe the role of explanation in science.
Activity a Talka Actions Adout a Duain Commission	Earth Systems	Students investigate climate, changes in climate, and the impact of climate change on Earth.
Activity: Take Action: Adopt a Drain Campaign	Scientific Methods	Students investigate and describe the role of explanation in science.
Activity: Take Action: Build a Rain Garden	Grade 8-12	
Activity: Take Action: Flood Protect Your Home	Grade 8-12	
Activity Chacco Au Trácos	Earth Systems	Students investigate climate, changes in climate, and the impact of climate change on Earth.
Activity: Chasse Au Trésor	Scientific Methods	Students investigate and describe the role of explanation in science.
Activity Teles Actions House Flood Ductocton Consumer House	Earth Systems	Students investigate climate, changes in climate, and the impact of climate change on Earth.
Activity: Take Action: Home Flood Protector Scavenger Hunt	Scientific Methods	Students investigate and describe the role of explanation in science.

Activity: Take Action: Install Rain Barrels	Grade 8-12	
	Energy	Students analyze forces and relate them to interactions between objects.
Activity: Take Action: Plant a Tree	Earth Systems	Students investigate climate, changes in climate, and the impact of climate change on Earth.
	Scientific Methods	Students investigate and describe the role of explanation in science.

Program: Flood:ED Grade 7

Grade 7 - Alberta Science Curriculum Connections



Activity Name	Organizing Idea	Learning Outcome
	Interactions and Ecosystems	Trace and interpret the flow of energy and materials within an ecosystem
		Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
	Heat and Temperature	Illustrate and explain how human needs have led to technologies for obtaining and controlling thermal energy and to increased use of energy resources
Activity: Hot Spot Investigators		Describe the nature of thermal energy and its effects on different forms of matter, using informal observations, experimental evidence and models
		Apply an understanding of heat and temperature in interpreting natural phenomena and technological devices
		Analyze issues related to the selection and use of thermal technologies, and explain decisions in terms of advantages and disadvantages for sustainability
	Interactions and Ecosystems	Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions
		Trace and interpret the flow of energy and materials within an ecosystem
		Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
	Heat and Temperature	Illustrate and explain how human needs have led to technologies for obtaining and controlling thermal energy and to increased use of energy resources
Activity: School Greening: Investigating		Describe the nature of thermal energy and its effects on different forms of matter, using informal observations, experimental evidence and models
<u>Simulator Solutions</u>		Apply an understanding of heat and temperature in interpreting natural phenomena and technological devices
		Analyze issues related to the selection and use of thermal technologies, and explain decisions in terms of advantages and disadvantages for sustainability
	Structures and Forces	Investigate and analyze forces within structures, and forces applied to them
		Investigate and analyze the properties of materials used in structures
		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety

	Interactions and Ecosystems	Trace and interpret the flow of energy and materials within an ecosystem
		Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
	Structures and Forces Interactions and Ecosystems	Describe and interpret different types of structures encountered in everyday objects, buildings, plants and animals; and identify materials from which they are made
Activity: Flood Risk Management Awareness		Investigate and analyze forces within structures, and forces applied to them
		Investigate and analyze the properties of materials used in structures
		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety
		Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions
		Trace and interpret the flow of energy and materials within an ecosystem
		Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
	Heat and Temperature	Illustrate and explain how human needs have led to technologies for obtaining and controlling thermal energy and to increased use of energy resources
Activity: FLOOD:ED School Greening Simulator		Describe the nature of thermal energy and its effects on different forms of matter, using informal observations, experimental evidence and models
		Apply an understanding of heat and temperature in interpreting natural phenomena and technological devices
		Analyze issues related to the selection and use of thermal technologies, and explain decisions in terms of advantages and disadvantages for sustainability
	Structures and Forces	Investigate and analyze forces within structures, and forces applied to them
		Investigate and analyze the properties of materials used in structures
		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety

	Interactions and Ecosystems	Trace and interpret the flow of energy and materials within an ecosystem
		Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
		Describe and interpret different types of structures encountered in everyday objects, buildings, plants and animals; and identify materials from which they are made
Activity: Flooding Mapping Tour		Investigate and analyze forces within structures, and forces applied to them
	Structures and Forces	Investigate and analyze the properties of materials used in structures
		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety
	Interactions and Ecosystems	Trace and interpret the flow of energy and materials within an ecosystem
		Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
	Structures and Forces	Describe and interpret different types of structures encountered in everyday objects, buildings, plants and animals; and identify materials from which they are made
Activity: Flooding and Climate Change		Investigate and analyze forces within structures, and forces applied to them
		Investigate and analyze the properties of materials used in structures
		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety
Activity: Climate Change In My Watershed Inquiry	Grade 9-12	
Activity: Extreme Weather Inquiry	Grade 9-12	

In	Interactions and Ecosystems	Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions
		Trace and interpret the flow of energy and materials within an ecosystem
		Monitor a local environment, and assess the impacts of environmental factors on the growth, health and reproduction of organisms in that environment
Activity Dunoff Footneint		Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
Activity: Runoff Footprint		Describe and interpret different types of structures encountered in everyday objects, buildings, plants and animals; and identify materials from which they are made
	Structures and Forces	Investigate and analyze forces within structures, and forces applied to them
	Structures and Forces	Investigate and analyze the properties of materials used in structures
		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety
	Interactions and Ecosystems	Trace and interpret the flow of energy and materials within an ecosystem
	Interactions and Ecosystems Structures and Forces	Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
Activity: Understand Flooding		Describe and interpret different types of structures encountered in everyday objects, buildings, plants and animals; and identify materials from which they are made
Activity: Understand Flooding		Investigate and analyze forces within structures, and forces applied to them
		Investigate and analyze the properties of materials used in structures
		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety
	Interactions and Ecosystems	Trace and interpret the flow of energy and materials within an ecosystem
	Interactions and Ecosystems	Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
Activity: What are Floodplains and Watersheds?		Describe and interpret different types of structures encountered in everyday objects, buildings, plants and animals; and identify materials from which they are made
		Investigate and analyze forces within structures, and forces applied to them
	Structures and Forces	Investigate and analyze the properties of materials used in structures
		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety

	Interactions and Ecosystems	Trace and interpret the flow of energy and materials within an ecosystem
	Structures and Forces	Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
		Describe and interpret different types of structures encountered in everyday objects, buildings, plants and animals; and identify materials from which they are made
Activity: Flood Resilience Plan for Your School		Investigate and analyze forces within structures, and forces applied to them
		Investigate and analyze the properties of materials used in structures
		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety
	Interactions and Ecosystems	Trace and interpret the flow of energy and materials within an ecosystem
	Interactions and Ecosystems	Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
Activity Dyonaving for Flood Docilions		Describe and interpret different types of structures encountered in everyday objects, buildings, plants and animals; and identify materials from which they are made
Activity: Preparing for Flood Resilience	Structures and Forces	Investigate and analyze forces within structures, and forces applied to them
		Investigate and analyze the properties of materials used in structures
	Interactions and Ecosystems	Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety
		Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions
		Trace and interpret the flow of energy and materials within an ecosystem
Activity: Take Action: Adent a Drain Campaign		Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
Activity: Take Action: Adopt a Drain Campaign		Investigate and analyze forces within structures, and forces applied to them
	Structures and Forces	Investigate and analyze the properties of materials used in structures
		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety
Activity: Take Action: Build a Rain Garden	Grade 8-12	
Activity: Take Action: Flood Protect Your Home	Grade 8-12	

	Interactions and Ecosystems	Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions
		Trace and interpret the flow of energy and materials within an ecosystem
Activity: Chasse Au Trésor		Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
	Structures and Forces	Investigate and analyze forces within structures, and forces applied to them
		Investigate and analyze the properties of materials used in structures
	Interactions and Ecosystems	Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions
Activity: Take Action: Home Flood Protector		Trace and interpret the flow of energy and materials within an ecosystem
Scavenger Hunt		Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
	Structures and Forces	Investigate and analyze forces within structures, and forces applied to them
		Investigate and analyze the properties of materials used in structures
Activity: Take Action: Install Rain Barrels	Grade 8-12	
Activity: Take Action: Plant a Tree	Interactions and Ecosystems	Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions
		Trace and interpret the flow of energy and materials within an ecosystem
		Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments
	Structures and Forces	Investigate and analyze forces within structures, and forces applied to them
		Investigate and analyze the properties of materials used in structures
		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety

Grade 8 - Alberta Science Curriculum Connections



Activity Name	Organizing Idea	Learning Outcome
Activity: Hot Spot Investigators	Mechanical Systems	Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
Activity: School Greening: Investigating Simulator Solutions		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues
	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
Activity: Flood Risk Management Awareness		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues

Activity: FLOOD:ED School Greening Simulator	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues
	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
Activity: Flooding Mapping Tour		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues
	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
Activity: Flooding and Climate Change		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues
Activity: Climate Change In My Watershed Inquiry	Grade 9-12	
Activity: Extreme Weather Inquiry	Grade 9-12	

Activity: Runoff Footprint	Mix and Flow of Matter	Investigate and describe the composition of fluids, and interpret the behaviour of materials in solution
		Identify, interpret and apply technologies based on properties of fluids
	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues
	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
Activity: Understand Flooding		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues
Activity: What are Floodplains and Watersheds?	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues

Activity: Flood Resilience Plan for Your School	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology inaddressing related questions, problems and issues
Activity: Preparing for Flood Resilience	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues
Activity: Take Action: Adopt a Drain Campaign	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues

Activity: Take Action: Build a Rain Garden	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues
Activity: Take Action: Flood Protect Your Home	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues
Activity: Chasse Au Trésor	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues

Activity: Take Action: Home Flood Protector Scavenger Hunt	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues
Activity: Take Action: Install Rain Barrels	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues
Activity: Take Action: Plant a Tree	Mechanical Systems	Illustrate the development of science and technology by describing, comparing and interpreting mechanical devices that have been improved over time
		Investigate and describe the transmission of force and energy between parts of a mechanical system
		Analyze the social and environmental contexts of science and technology, as they apply to the development of mechanical devices
	Freshwater and Saltwater Systems	Investigate and interpret linkages among landforms, water and climate
		Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues

Grade 9 - Alberta Science Curriculum Connections



Activity Name	Organizing Idea	Learning Outcome
Activity: Hot Spot Investigators	Electrical Principles and Technologies	Investigate and interpret the use of devices to convert various forms of energy to electrical energy and electrical energy to other forms of energy
		Identify and estimate energy inputs and outputs for example devices and systems, and evaluate the efficiency of energy conversions
		Describe and discuss the societal and environmental implications of the use of electrical energy
Activity: School Greening: Investigating Simulator Solutions	Electrical Principles and Technologies	Investigate and interpret the use of devices to convert various forms of energy to electrical energy and electrical energy to other forms of energy
		Identify and estimate energy inputs and outputs for example devices and systems, and evaluate the efficiency of energy conversions
		Describe and discuss the societal and environmental implications of the use of electrical energy
Activity: Flood Risk Management Awareness	N/A	
Activity: FLOOD:ED School Greening Simulator	Electrical Principles and Technologies	Investigate and interpret the use of devices to convert various forms of energy to electrical energy and electrical energy to other forms of energy
		Identify and estimate energy inputs and outputs for example devices and systems, and evaluate the efficiency of energy conversions
		Describe and discuss the societal and environmental implications of the use of electrical energy
activity: Flooding Mapping Tour	N/A	
activity: Flooding and Climate Change	N/A	
Activity: Climate Change In My Watershed nquiry	N/A	
Activity: Extreme Weather Inquiry	N/A	
Activity: Runoff Footprint	N/A	
Activity: Understand Flooding	N/A	

Activity: What are Floodplains and Watersheds?	N/A
Activity: Flood Resilience Plan for Your School	N/A
Activity: Preparing for Flood Resilience	N/A
Activity: Take Action: Adopt a Drain Campaign	N/A
Activity: Take Action: Build a Rain Garden	N/A
Activity: Take Action: Flood Protect Your Home	N/A
Activity: Chasse Au Trésor	N/A
Activity: Take Action: Home Flood Protector Scavenger Hunt	N/A
Activity: Take Action: Install Rain Barrels	N/A
Activity: Take Action: Plant a Tree	N/A

Grade 10 - Alberta Science Curriculum Connections



Activity Name	Organizing Idea	Learning Outcome
Activity: Hot Spot Investigators	Grade 5-9	
	10 - Unit B: Energy Flow in Technological Systems	Analyze and illustrate how technologies based on thermodynamic principles were developed before the laws of thermodynamics were formulated
		Explain and apply concepts used in theoretical and practical measures of energy in mechanical systems
Activity: School Greening: Investigating Simulator Solutions		Apply the principles of energy conservation and thermodynamics to investigate, describe and predict efficiency of energy transformation in technological systems
	10 - Unit D: Energy Flow in Global Systems	Describe how the relationships among input solar energy, output terrestrial energy and energy flow within the biosphere affect the lives of humans and other species
		Analyze the relationships among net solar energy, global energy transfer processes—primarily radiation, convection and hydrologic cycle—and climate.
Activity: Flood Risk Management Awareness		N/A
	10 - Unit B: Energy Flow in Technological Systems	Analyze and illustrate how technologies based on thermodynamic principles were developed before the laws of thermodynamics were formulated
		Explain and apply concepts used in theoretical and practical measures of energy in mechanical systems
Activity: FLOOD:ED School Greening Simulator		Apply the principles of energy conservation and thermodynamics to investigate, describe and predict efficiency of energy transformation in technological systems
	10 - Unit D: Energy Flow in Global Systems	Describe how the relationships among input solar energy, output terrestrial energy and energy flow within the biosphere affect the lives of humans and other species
		Analyze the relationships among net solar energy, global energy transfer processes—primarily radiation, convection and hydrologic cycle—and climate.
Activity: Flooding Mapping Tour	N/A	

Activity: Flooding and Climate Change	10 - Unit D: Energy Flow in Global Systems	Describe how the relationships among input solar energy, output terrestrial energy and energy flow within the biosphere affect the lives of humans and other species
		Relate climate to the characteristics of the world's major biomes, and compare biomes in different regions of the world
		Investigate and interpret the role of environmental factors on global energy transfer and climate change
Activity: Climate Change In My Watershed	10 - Unit D: Energy Flow in Global Systems	Describe how the relationships among input solar energy, output terrestrial energy and energy flow within the biosphere affect the lives of humans and other species
<u>Inquiry</u>		Relate climate to the characteristics of the world's major biomes, and compare biomes in different regions of the world
		Investigate and interpret the role of environmental factors on global energy transfer and climate change
Activity: Extreme Weather Inquiry	N/A	
Activity: Runoff Footprint	N/A	
Activity: Understand Flooding	N/A	
Activity: What are Floodplains and Watersheds?	N/A	
Activity: Flood Resilience Plan for Your School	N/A	
Activity: Preparing for Flood Resilience	N/A	
Activity: Take Action: Adopt a Drain Campaign	N/A	
Activity: Take Action: Build a Rain Garden	N/A	
Activity: Take Action: Flood Protect Your Home	N/A	
Activity: Chasse Au Trésor	N/A	
Activity: Take Action: Home Flood Protector Scavenger Hunt	N/A	
Activity: Take Action: Install Rain Barrels	N/A	
Activity: Take Action: Plant a Tree	14 - Unit D: Investigating Matter & 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