## Program: Flood:ED Grade 7 - All

## **Grade 7 - Alberta Science Curriculum Connections**



Activity Name	Organizing Idea	Learning Outcome
Activity: Hot Spot Investigators	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
		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
Activity: School Greening: Investigating Simulator Solutions		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
		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

Activity: Flood Risk Management Awareness	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
		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	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
Activity: FLOOD:ED School Greening Simulator	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
		Describe the nature of thermal energy and its effects on different forms of matter, using informal observations, experimental evidence and models
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	Interactions and Ecosystems	Trace and interpret the flow of energy and materials within an ecosystem
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	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 Mapping Tour		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	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
	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
Activity: Climate Change In My Watershed Inquiry	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
		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: Extreme Weather Inquiry	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

Activity: Runoff Footprint	Interactions and Ecosystems  Structures and Forces	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  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  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
		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 Understand Flooding	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: 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
Activity: What are Floodplains and Watersheds?		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
		Investigate and analyze forces within structures, and forces applied to them
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	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: 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
		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
<u>Activity: Preparing for Flood Resilience</u>		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: Take Action: Adopt a Drain Campaign	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
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	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
Activity: Take Action: Build a Rain Garden	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	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: Flood Protect Your Home		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
		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
Activity: Take Action: Home Flood Protector Scavenger Hunt	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

Activity: Take Action: Install Rain Barrels	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
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
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		Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety