Grade 5 – Ontario Science and Technology Curriculum Connections



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Organizing Idea	Learning Outcome
Grade 7-12	
Grade 7-12	
Grade 7-12	
Grade 7-12	
Grade 7-12	
Grade 6-12	
Grade 6-12	
Grade 7-12	
Grade 9-12	
A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
E. Earth and Space Systems: Conservation of Energy and Resources	E2. Exploring and Understanding Concepts – Demonstrate an understanding of the conservation of energy, and the forms, sources, and uses of energy and resources
Grade 7-12	
Grade 7-12	
Grade 7-12	
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Activity: Planning a Trip in your Electric Vehicle	Grade 7-12	
Activity: Electric Vehicles and Charging Stations with Six Nations of the Grand River	Grade 7-12	
Activity: What EV Should You Buy?	Grade 7-12	
Activity: Build a Wind Turbine	Grade 6-12	
Activity: Introduction to Wind Energy	Grade 6-12	
Activity: Wind Turbine Simulator	Grade 7-12	
Activity: Build a Hydroelectric Generator	Grade 6-12	
Activity: Introduction to Hydro Energy	Grade 6-12	
Activity: Pumped Hydro Storage	Grade 7-12	
Activity: Build a Biogas Generator	Grade 7-12	
Activity: Introduction to Biomass Energy	Grade 7-12	
	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Flywheel Model	E. Earth and Space Systems: Conservation of Energy and Resources	E2. Exploring and Understanding Concepts – Demonstrate an understanding of the conservation of energy, and the forms, sources, and uses of energy and resources
Activity Puild - Depart Detter	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Penny Battery	E. Earth and Space Systems: Conservation of Energy and Resources	E2. Exploring and Understanding Concepts – Demonstrate an understanding of the conservation of energy, and the forms, sources, and uses of energy and resources
Activity: Endothermic and Exothermic Reactions	Grade 7-12	
Activity: Energy Storage Match	Grade 7-12	
Activity: Exploring Energy Storage in Your Community	Grade 7-12	
Activity: Exploring How to Make a Battery	Grade 7-12	

Activity: Heat Transfer Lab	Grade 7-12	
Activity: Pumped Hydro Storage	Grade 7-12	
Activity: The Electrostatic Effect	Grade 7-12	

Grade 6 – Ontario Science and Technology Curriculum Connections



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Activity Name	Organizing Idea	Learning Outcome
Activity: Renewable Energy Sources	Grade 7-12	
Activity: What is Renewable Energy?	Grade 7-12	
Activity: Build a Solar Car	Grade 7-12	
Activity: Build a Solar Oven	Grade 7-12	
Activity: Construire un Four Solaire	Grade 7-12	
Activity: Introduction to Solar Electricity	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
	C. Matter and Energy: Electrical Phenomena, Energy, and Devices	C2. Exploring and Understanding Concepts – Demonstrate an understanding of the principles of electrical energy and its transformation into and from other forms of energy
Activity: Introduction to Solar Heat Energy	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
	C. Matter and Energy: Electrical Phenomena, Energy, and Devices	C2. Exploring and Understanding Concepts – Demonstrate an understanding of the principles of electrical energy and its transformation into and from other forms of energy
Activity: Solar Energy Transition with Six Nations of the Grand River	Grade 7-12	
Activity: Electrifying the Future of Transportation Guide	Grade 9-12	

	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build an Electric Vehicle Model	A. Sterri Skiils and Confilections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
	C. Matter and Energy: Electrical Phenomena, Energy, and Devices	C2. Exploring and Understanding Concepts – Demonstrate an understanding of the principles of electrical energy and its transformation into and from other forms of energy
Activity: Exploring Electric Vehicle Charging Stations	Grade 7-12	
Activity: History of the Electric Vehicle	Grade 7-12	
Activity: How is Your Community Adapting for Electric Vehicles?	Grade 7-12	
Activity: Planning a Trip in your Electric Vehicle	Grade 7-12	
Activity: Electric Vehicles and Charging Stations with Six Nations of the Grand River	Grade 7-12	
Activity: What EV Should You Buy?	Grade 7-12	
	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Wind Turbine	C. Matter and Energy: Electrical Phenomena, Energy, and Devices	C2. Exploring and Understanding Concepts – Demonstrate an understanding of the principles of electrical energy and its transformation into and from other forms of energy
	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
Activity: Introduction to Wind Energy	C. Matter and Energy: Electrical Phenomena, Energy, and Devices	C2. Exploring and Understanding Concepts – Demonstrate an understanding of the principles of electrical energy and its transformation into and from other forms of energy
Activity: Wind Turbine Simulator	Grade 7-12	

Activity: Build a Hydroclostric Conorator	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Hydroelectric Generator	C. Matter and Energy: Electrical Phenomena, Energy, and Devices	C2. Exploring and Understanding Concepts – Demonstrate an understanding of the principles of electrical energy and its transformation into and from other forms of energy
Activity Introduction to Uvdro Enorgy	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
Activity: Introduction to Hydro Energy	C. Matter and Energy: Electrical Phenomena, Energy, and Devices	C2. Exploring and Understanding Concepts – Demonstrate an understanding of the principles of electrical energy and its transformation into and from other forms of energy
Activity: Pumped Hydro Storage	Grade 7-12	
Activity: Build a Biogas Generator	Grade 7-12	
Activity: Introduction to Biomass Energy	Grade 7-12	
	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Flywheel Model	C. Matter and Energy: Electrical Phenomena, Energy, and Devices	C2. Exploring and Understanding Concepts – Demonstrate an understanding of the principles of electrical energy and its transformation into and from other forms of energy
Activity, Build a Donny Pattony	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Penny Battery	C. Matter and Energy: Electrical Phenomena, Energy, and Devices	C2. Exploring and Understanding Concepts – Demonstrate an understanding of the principles of electrical energy and its transformation into and from other forms of energy
Activity: Endothermic and Exothermic Reactions	Grade 7-12	
Activity: Energy Storage Match	Grade 7-12	
Activity: Exploring Energy Storage in Your Community	Grade 7-12	
Activity: Exploring How to Make a Battery	Grade 7-12	

Activity: Heat Transfer Lab	Grade 7-12	
Activity: Pumped Hydro Storage	Grade 7-12	
Activity: The Electrostatic Effect	Grade 7-12	

Grade 7 – Ontario Science and Technology Curriculum Connections



Activity Name	Organizing Idea	Learning Outcome
Activity: Renewable Energy Sources	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
	E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
A. Stem Skills and Connections B. Life Systems: Interactions in the Environment E. Earth and Space Systems: Heat in the Environment	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences	
		B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
		E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
Activity: Build a Solar Car	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability

	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Solar Oven		A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
		A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Construire un Four Solaire	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
Activity: Introduction to Solar Electricity	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
	E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
Activity: Introduction to Solar Heat Energy	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
	E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources

	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
	E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
Activity: Electrifying the Future of Transportation Guide	Grade 9-12	
		A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build an Electric Vehicle Model Activity: Exploring Electric Vehicle Charging Stations	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
	E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
Activity: History of the Electric Vehicle	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences

	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
		A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
Activity: How is Your Community Adapting for Electric Vehicles?	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
	E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
Activity: Planning a Trip in your Electric Vehicle	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Electric Vehicles and Charging Stations with Six Nations of the Grand River	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: What EV Should You Buy?	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
Activity: Build a Wind Turbine	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
	E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources

A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
	B. Life Systems: Interactions in the Environment E. Earth and Space Systems: Heat in the Environment A. Stem Skills and Connections B. Life Systems: Interactions in the Environment E. Earth and Space Systems: Heat in the Environment A. Stem Skills and Connections B. Life Systems: Interactions in the Environment E. Earth and Space Systems: Enteractions in the Environment

Activity: Introduction to Hydro Energy	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology from people with diverse lived experiences
	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
	E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
Activitus Duran ed Hudus Ctores	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
Activity: Pumped Hydro Storage	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
Activity: Build a Biogas Generator	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
	E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
	B. Life Systems: Interactions in the Environment Erroduction to Biomass Energy E. Earth and Space Systems: Heat in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
Activity: Introduction to Biomass Energy		E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources

	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Flywheel Model	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
	E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources
	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Penny Battery	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
Activity: Endothermic and Exothermic Reactions	E. Earth and Space Systems: Heat in the Environment	E2. Exploring and Understanding Concepts – Demonstrate an understanding of heat as a form of energy that is associated with the movement of particles and is essential for many natural processes within Earth's systems
Activity: Energy Storage Match	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
Activity: Exploring Energy Storage in Your	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
<u>Community</u>	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
Activity: Exploring How to Make a Battery	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
Activity, Hoat Transfer Lab	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
Activity: Heat Transfer Lab	E. Earth and Space Systems: Heat in the Environment	E1. Relating Science and Technology to Our Changing World – Assess the benefits of technologies that reduce heat loss, and analyse various social and environmental impacts of the use of energy from renewable and non-renewable sources

Activity: Pumped Hydro Storage	D Life Systems: Interactions in	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability
Activity: The Electrostatic Effect	B. Life Systems: Interactions in the Environment	B1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the environment, and analyse ways to mitigate negative impacts and contribute to environmental sustainability

Grade 8 – Ontario Science and Technology Curriculum Connections



Activity Name	Organizing Idea	Learning Outcome
	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
Activity: Renewable Energy Sources	D. Structures and Mechanisms: Systems in Action	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
Activity: What is Renewable Energy?	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
Activity: Build a Solar Car	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
		A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Solar Oven	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
		A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Construire un Four Solaire	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences

	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
		A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
Activity: Introduction to Solar Electricity	D. Structures and Mechanisms:	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
	Systems in Action	D2. Exploring and Understanding Concepts – Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation
	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
Activity: Introduction to Solar Heat Energy	duction to Solar Heat Energy D. Structures and Mechanisms:	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
	Systems in Action	D2. Exploring and Understanding Concepts – Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation
Activity: Solar Energy Transition with Six Nations	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
of the Grand River	D. Structures and Mechanisms: Systems in Action	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
Activity: Electrifying the Future of Transportation Guide	Grade 9-12	
		A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build an Electric Vehicle Model	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences

Activity: Exploring Electric Vehicle Charging	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
<u>Stations</u>	D. Structures and Mechanisms: Systems in Action	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
Activity: History of the Electric Vehicle	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
		A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: How is Your Community Adapting for	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
Activity: How is Your Community Adapting for Electric Vehicles?	D. Structures and Mechanisms:	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
	Systems in Action	D2. Exploring and Understanding Concepts – Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation
	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Planning a Trip in your Electric Vehicle	D. Structures and Mechanisms: Systems in Action	D2. Exploring and Understanding Concepts – Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation
	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
Activity: Electric Vehicles and Charging Stations with Six Nations of the Grand River	D. Structures and Mechanisms:	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
	Systems in Action	D2. Exploring and Understanding Concepts – Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation

Activity: What EV Should You Buy?	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process,
Accivity. Wilde LV Siloula 10a bay.	7. Sterri Skins and Connections	and an engineering design process to conduct investigations, following appropriate health and safety procedures
	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Wind Turbine	C. Matter and Energy: Fluids	C1. Relating Science and Technology to Our Changing World – Analyse uses of various technologies that rely on the properties of fluids, and assess the impact of these technologies on society and the environment
		C2. Exploring and Understanding Concepts – Demonstrate an understanding of basic fluid mechanics, including the properties and uses of fluids
	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
	C. Matter and Energy: Fluids D. Structures and Mechanisms:	C1. Relating Science and Technology to Our Changing World – Analyse uses of various technologies that rely on the properties of fluids, and assess the impact of these technologies on society and the environment
Activity: Introduction to Wind Energy		C2. Exploring and Understanding Concepts – Demonstrate an understanding of basic fluid mechanics, including the properties and uses of fluids
		D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
	Systems in Action	D2. Exploring and Understanding Concepts – Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation

	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
	C. Matter and Energy: Fluids	C1. Relating Science and Technology to Our Changing World – Analyse uses of various technologies that rely on the properties of fluids, and assess the impact of these technologies on society and the environment
Activity: Wind Turbine Simulator	D. Structures and Mechanisms:	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
	Systems in Action	D2. Exploring and Understanding Concepts – Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation
	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Hydroelectric Generator	tric Generator C. Matter and Energy: Fluids	C1. Relating Science and Technology to Our Changing World – Analyse uses of various technologies that rely on the properties of fluids, and assess the impact of these technologies on society and the environment
	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
	C. Matter and Energy: Fluids	C1. Relating Science and Technology to Our Changing World – Analyse uses of various technologies that rely on the properties of fluids, and assess the impact of these technologies on society and the environment
	o de la companya de	C2. Exploring and Understanding Concepts – Demonstrate an understanding of basic fluid mechanics, including the properties and uses of fluids
Activity: Introduction to Hydro Energy	D. Structures and Mechanisms:	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
	Systems in Action	D2. Exploring and Understanding Concepts – Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation
	E. Earth and Space Systems: Water Systems	E1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the sustainability of water resources

	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
	C. Matter and Energy: Fluids	C1. Relating Science and Technology to Our Changing World – Analyse uses of various technologies that rely on the properties of fluids, and assess the impact of these technologies on society and the environment
Activitus Dusanos d'Hudus Stovess		C2. Exploring and Understanding Concepts – Demonstrate an understanding of basic fluid mechanics, including the properties and uses of fluids
Activity: Pumped Hydro Storage	D. Structures and Mechanisms:	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
	Systems in Action	D2. Exploring and Understanding Concepts – Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation
	E. Earth and Space Systems: Water Systems	E1. Relating Science and Technology to Our Changing World – Assess the impact of human activities and technologies on the sustainability of water resources
Activity: Build a Biogas Generator	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
	C. Matter and Energy: Fluids	C1. Relating Science and Technology to Our Changing World – Analyse uses of various technologies that rely on the properties of fluids, and assess the impact of these technologies on society and the environment
		C2. Exploring and Understanding Concepts – Demonstrate an understanding of basic fluid mechanics, including the properties and uses of fluids
	D. Structures and Mechanisms: Systems in Action	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
Activity: Introduction to Riomass Fnergy	D. Structures and Mechanisms:	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
Systems in Action	D2. Exploring and Understanding Concepts – Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation	

Activity: Build a Flywheel Model	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Build a Penny Battery	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Endothermic and Exothermic Reactions	A. Stem Skills and Connections	A1. STEM Investigation and Communication Skills – Use a scientific research process, a scientific experimentation process, and an engineering design process to conduct investigations, following appropriate health and safety procedures
Activity: Energy Storage Match	D. Structures and Mechanisms: Systems in Action	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
	A. Stem Skills and Connections	A3. Applications, Connections, and Contributions – Demonstrate an understanding of the practical applications of science and technology, and of contributions to science and technology from people with diverse lived experiences
Activity: Exploring Energy Storage in Your Community	D. Structures and Mechanisms: Systems in Action	D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or alternative ways of meeting the same needs
		D2. Exploring and Understanding Concepts – Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation
Activity: Exploring How to Make a Battery		N/A
Activity: Heat Transfer Lab		N/A
Activity: Heat Transfer Lab	C. Matter and Energy: Fluids	N/A C1. Relating Science and Technology to Our Changing World – Analyse uses of various technologies that rely on the properties of fluids, and assess the impact of these technologies on society and the environment
Activity: Heat Transfer Lab	C. Matter and Energy: Fluids	C1. Relating Science and Technology to Our Changing World – Analyse uses of various technologies that rely on the properties of fluids, and assess the impact of these technologies on
Activity: Heat Transfer Lab Activity: Pumped Hydro Storage	C. Matter and Energy: Fluids D. Structures and Mechanisms:	C1. Relating Science and Technology to Our Changing World – Analyse uses of various technologies that rely on the properties of fluids, and assess the impact of these technologies on society and the environment C2. Exploring and Understanding Concepts –
		C1. Relating Science and Technology to Our Changing World – Analyse uses of various technologies that rely on the properties of fluids, and assess the impact of these technologies on society and the environment C2. Exploring and Understanding Concepts – Demonstrate an understanding of basic fluid mechanics, including the properties and uses of fluids D1. Relating Science and Technology to Our Changing World – Assess the social and environmental impacts of various systems, and evaluate improvements to the systems or

Activity: The Electrostatic Effect

N/A