

SCIENCE 24

QUICK-START GUIDE ALBERTA CURRICULUM



Lessons and activities at a glance, aligned to the Alberta Science 24 curriculum: hands-on labs, math challenges, and data sets. Built to make energy transfer practical for your students while saving you planning time.

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ALBERTA CURRICULUM

Overview: Energy can be transferred by means of heat and by use of force or distance multipliers called machines. The optimal design of such energy transfer technologies is based upon an understanding of energy transfer, heat and temperature, and force.

Learning Outcome: Students will gain an understanding that the design of energy transfer technologies also takes into consideration the need for safety and for efficiency as a means of reducing reliance upon nonrenewable energy resources.

LESSON	ACTIVITY
Introduction to Wind	Build a windmill from repurposed items in this lab activity.
Introduction to Electricity	Have students build and test series and parallel circuits using Play-Doh in the hands-on activity.
Introduction to Efficiency Video	Explore why efficiency is the first step in managing personal energy use.
Energy Units Math Challenge	Assign the math activities to explore energy, power, and work through calculations.
Introduction to Coal	Assign student groups to complete the data set and the Power Generation Simulation.
Introduction to Oil	Assign student partners to complete the bell ringer, data set, and the Transportation Trade-Offs Hands-On activity.
Introduction to Natural Gas	Assign the video, quiz, and data set to explore natural gas as an energy resource and its trade-offs.
Developing Media Literacy	Introduce students to the fundamentals of media literacy through the lens of researching energy topics.



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