



## Powering Careers in Energy Program

This program is based on 110 hours of teaching and learning (2 unit equivalents). It should be modified to suit your class and circumstances.

Suggested Time Allocation	Focus	Activity	Assessment	Resources
8 hours	Introduction to the course, the chevron way, and Chevron's operations in Australia	<p>View introductory videos (windows, chevron's future of human energy and Australian Students Participate in the Future of Energy) and discuss this program</p> <p>Explore the chevron way, identifying key aspects of the vision, values and strategies</p> <p>Create your own vision, values and strategies for PCiE success this year</p> <p>Learn more about Chevron's history and operations in Australia</p>	Produce a presentation on one of Chevron's major projects in Australia (can be a report, slide deck, video or other).	<p>windows - <a href="#">YouTube</a></p> <p>chevron's future of human energy - <a href="#">YouTube</a></p> <p>Australian Students Participate in the Future of Energy – <a href="#">YouTube</a></p> <p>the chevron way – <a href="#">Information, flyer and video</a></p> <p>Chevron employees talk about the chevron way – <a href="#">YouTube</a></p> <p>Chevron's history – <a href="#">Web Resources</a></p> <p>Our businesses – <a href="#">Web Resources</a></p>
<b>Unit One – Introduction to Energy</b>				
4 hours	Identify and explain the role of energy in our community	<p>Research current global energy use statistics. What are the major sources of this energy? Who is using it?</p> <p>Explore current and future energy mixes.</p>	Create your own resource to share with Year 2 students to help them to understand the important role energy plays in our daily lives.	<p>Energy – <a href="#">Web Resource</a> (University of Oxford)</p> <p>What's in a barrel of oil? - <a href="#">YouTube</a></p> <p>Energy Use in Society – <a href="#">Activity</a></p> <p>Microgrid Power Mix - <a href="#">Activity</a></p>



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1 hour	Describe the energy value chain	View introductory videos to find out how energy sources are formed, discovered, extracted, processed and transported.		Oil and Gas Formation – <a href="#">YouTube</a> (WASP) LNG Value Chain – <a href="#">YouTube</a> (ExxonMobil)
4 hours	Demonstrate an understanding of diverse global communities and cultures who engage with energy operations	Who does Chevron Australia supply? What about the broader organisation?  Choose a community that Chevron works with and produce an eye-catching flyer outlining the relationship.		Gas Supply and Trading (Australia) – <a href="#">Web Resource</a> Supply and Trading (Global) – <a href="#">Web Resource</a> Economic Development Playlist - <a href="#">YouTube</a>
8 hours	Demonstrate an understanding of Australia’s cultural heritage and native title	What is Native Title? What is the Native Title Act process in WA?  What is a reconciliation action plan? Create a mind map of Chevron’s reconciliation action plan.	Produce a presentation on Native Title and the process followed in WA (can be a report, slide deck, video or other).	Native title, rights and interests – <a href="#">Web Resources</a> Mabo and Native Title – <a href="#">Web Resource</a> Native Title Act process – <a href="#">Web Resource</a> Chevron’s RAP – <a href="#">Web Resource</a>
<b>Unit Two – The Science behind Energy</b>				
4 hours	Outline the forms and sources of energy	What are forms of energy? What are the possible sources of this energy?	Develop a game using the forms and sources of energy that is both fun and educational.	Types of Energy – <a href="#">Web Resources</a> Forms and Sources of Energy - <a href="#">Activity</a> Hydrogen Use - <a href="#">Activity</a>



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2 hours	Demonstrate an understanding of the importance of science in energy operations	<p>What are source rocks and how do they form?</p> <p>Determine the rocks that could make good migratory pathways and hosts for oil and gas (reservoir rocks).</p>		<p>Source rock – <a href="#">Web Resource</a></p> <p>Porosity and Permeability - <a href="#">Activity</a>, <a href="#">Video</a>, <a href="#">Article</a></p>
10 hours	Demonstrate an understanding of the importance of science in energy operations (continued)	<p>Model and demonstrate oil and gas migration through porous rocks and/or fractures and collection in traps.</p> <p>Model the formation of a sedimentary basin containing oil and gas.</p> <p>How do we search for oil and gas?</p> <p>Determine what seismic reflection survey waves are, how they travel through the subsurface and are recorded.</p> <p>Explore the process of exploration drilling and the data that can be collected.</p> <p>Find out how gas is produced and processed into LNG</p> <p>Find out more about exploration and innovation throughout Chevron’s operations</p>		<p>Oil and Gas Migration to Traps - <a href="#">Activity</a>, <a href="#">Video</a>, <a href="#">Article on migration</a>, <a href="#">Article on traps</a></p> <p>Sedimentary Basins – <a href="#">Activity</a></p> <p>Finding oil and gas – <a href="#">Web Resource</a></p> <p>Oil and Gas Exploration Box - <a href="#">Activity</a></p> <p>Seismic Acquisition – <a href="#">Activity</a></p> <p>Using Online Databases – <a href="#">Activity</a>, <a href="#">Video</a>, <a href="#">Article</a></p> <p>Where Should We Explore? <a href="#">Activity</a>, <a href="#">Article</a></p> <p>Exploration Drilling – <a href="#">Activity</a>, <a href="#">Video</a></p> <p>Turning natural gas into liquid - <a href="#">Video</a></p> <p>Discovering Gorgon - <a href="#">YouTube</a></p> <p>Applying Technology – <a href="#">YouTube Playlist</a></p>



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4 hours	Explain the importance of biodiversity and how organisations can work with minimal impact on the environment	Find out more about biodiversity and why is it important.  How does Chevron work to minimise impact on the environment?		Australian Government: Department of Agriculture, Water and the Environment – <a href="#">Web Resources</a> Protecting the Environment – <a href="#">Web Resources</a>
8 hours	Identify how Barrow Island’s Class A Nature Reserve Status has been maintained through proper management and conservation practices	What are the classifications under our national reserve system?  What has Chevron put in place to protect Barrow Island’s Class A Nature Reserve Status?	Produce a presentation on the management and conservation practices put in place at Barrow Island (can be a report, slide deck, video or other).	Barrow Island Turtle Monitoring – <a href="#">Case Study</a> Chevron Protects Wildlife on Barrow Island – <a href="#">YouTube</a> Chevron Protects Sea Turtles on Barrow Island - <a href="#">YouTube</a> Barrow Island Quarantine: Beyond Best Practice - <a href="#">Booklet</a>
<b>Unit Three – Safety</b>				
2 hours	Outline the concept of Behaviour Based Safety and the importance of adopting an injury and incident free approach across all facets of their life	Find out more about what Chevron does to protect their people.  Explore the hazard wheel. Use it to assess example activities.		Protecting People – <a href="#">Web Resources</a> Operational Excellence Management System – <a href="#">Web Resources</a> OE Management System - <a href="#">YouTube</a> The Hazard Wheel – <a href="#">Web Resource</a>



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3 hours	Demonstrate an understanding of Behaviour Based Safety in the workplace through the use of school-based OSPREYs (or similar)	Explore the concept of OSPREYs. Why are they important?  Conduct OSPREYs for activities conducted at school, review and improve these with your peers.	Conduct and document three OSPREYs for activities conducted at school.	Hydrogen Combustion OSPREY - <a href="#">Activity</a>
7 hours	Understand the role personal health and wellness plays in the workplace	Consider your classroom as a workplace. Assess how well it caters to health and wellness. Develop a wellness plan and work (with teacher approval) to develop an improvement initiative		Assess workplace health, develop a program and more – <a href="#">Web Resources</a> (Live Lighter)  Promoting diversity and inclusion – <a href="#">Web Resource</a>
3 hours	Explain the causes and consequences of a global energy disaster	View the movie Deepwater Horizon. Outline the causes of the disaster and their consequences. How could this disaster have been prevented?		Six steps that doomed the rig – <a href="#">Web Resource</a> (Sites at Penn State)  Deepwater Horizon oil spill – <a href="#">Web Resource</a> (NOAA)
<b>Unit Four – Exploring Careers in Energy</b>				
2 hours	Explore a range of career opportunities and pathways in the energy industry	Research careers in the energy industry. Produce a summary (mind map or similar) to capture key opportunities and the qualifications required to take these on.		5 reasons to pursue a job in energy and utilities – <a href="#">Web Resource</a> (gradaustralia)  Meet Our Employees – <a href="#">YouTube Playlist</a>



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15 hours	Identify attributes and skills required for successful careers in energy	<p>Research job advertisements across the energy industry to identify commonly required skills and attributes.</p> <p>Take a careers quiz to identify your own attributes and develop your work readiness.</p>		<p>Work with us – <a href="#">Web Resource</a></p> <p>Career planning lesson plans (x8) – <a href="#">Web Resource</a> (Skillsroad)</p> <p>Job Jumpstart – <a href="#">Web Resources</a> (Australian Government)</p>
10 hours	Demonstrate skills required for job applications and interview processes within the energy industry	<p>Analyse sample cover letters and resumes. Identify the good and the bad.</p> <p>Explore templates for cover letters and resumes. Choose one to create your own. Share your drafts with peers and provide constructive feedback. Continue process until you have a product you are proud of.</p> <p>Find out more about interviews and how to prepare for one. Practice your interview skills with your peers.</p>	Produce your own professional (work) portfolio.	<p>Cover letters – The good and the bad – <a href="#">Web Resource</a> (seek)</p> <p>Resumes – The good and the bad – <a href="#">Web Resource</a> (seek)</p> <p>Resume templates – <a href="#">Web Resource</a> (seek)</p> <p>High school resume template – <a href="#">Web Resource</a> (the balance careers)</p> <p>Job interviews lesson plans (x2) – <a href="#">Web Resource</a> (Skillsroad)</p>



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<b>Unit Five – Energy Exploration Day</b>				
15 hours	Get the most out of your Energy Exploration experience	<p>Prepare for your Energy Exploration experience by revising all that you have learnt in this course. Brush up on your networking skills.</p> <p>On the day, be prepared to network, participate fully and give everything a go.</p> <p>After the day, journal your experiences. What were your key takeaways?</p>	Energy Exploration Day journal.	