

Serving the Community – Essential Service Operators

This module gives students examples of how they can have a job servicing the community.

Magazine with activities

David from Alice Springs, Tony from Galiwin'ku and Anthony from the Roper Gulf Shire are Essential Service Operators (ESOs) who manage and maintain their community's water and power services.

Students will learn:

- the work ESOs do to keep power and water services operating
- the writing and reading required to stay organised and prepared for the job
- how to test water for safe chlorine levels
- accurate reading and recording of meters and gauges
- calculating how much replacement fuel to order.



Curriculum Links

PreVET reinforces and authentically contextualises curriculum learning. For detailed mapping, see [6c-curriculum-mapping.xlsx](#)

Australian Curriculum Prior Learning

- English: Receptive mode – Students analyse and explain literal and implied information from a variety of texts. They listen and ask questions to clarify content.
- Mathematics: Students use scaled instruments to measure temperature, lengths, shapes and objects.
- Science – Students analyse how the sustainable use of resources depends on their cycle through Earth systems. Students investigate electrical circuits.

T-9 Net Diagnostic Continua




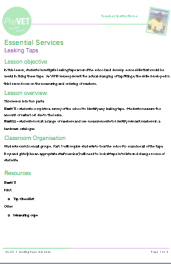
- Reading: Breaking the written code, Making meaning, and Using text.
- Writing: Why am I writing this text.
- Numeracy: Operating & Calculating, Shape & Measurement.

Australian Core Skills Framework

- Reading, Oral Communication, Writing Levels 1-3
- Numeracy Levels 1-2

Overview of 6C Essential Service Operators – Activities

See m6c-transcript-answers.pdf for Activity Answers, m6c-quiz-answers.pdf for Quiz Answers.

		Overview	Key Vocabulary	Teaching ideas	Related Games	Quiz Questions
A1 Communicating in Writing		The literacy skills required as a plumber for completing job tickets, ordering parts, and reading safety rules and licensing requirements. Key points: - Ordering replacement stock - Writing about completed jobs - Reading about license rules and regulations.	Washers Thermostatic mixing valve Endorsements Licensing Shower rose Job card Address	There is a slide about different licenses a plumber will need with appropriate links to the web pages. However, there is no reason included to click on these links unless an activity is facilitated by the teacher. The links are to St John's Ambulance, Australian First Aid and Work Safe NT.	6C.S3.G1.1 Leaky Pipes 6C.S3.A1.1 Classroom Job Tickets	1, 2, 3, 4, 5, 6
A2 Essential Water Services		Reading and recording water meters and sewage pump gauges and testing water to ensure a healthy water supply. Key points: - Reading meters and gauges - Recording results	Sewage Bore Chlorine Water Pump Gauge Meter	Where chlorine readings are mentioned in the interview, take note that the presenter keeps saying "50" but really it should be 0.50. A good opportunity to discuss with the class how to correctly say decimal numbers.	6C.S3.G2.1 Gauge Match 6C.S3.G3.1 Water Facts Memory	1, 7, 8, 9
A3 Essential Power Services		Taking the readings in the powerhouse to ensure adequate fuel and power supplies. Key Points: - Reading generator meter and fuel gauges - Recording results accurately - Calculating the right amount of replacement fuel	Generator Black start Accurately W Amps KWH Fuel	<u>Using Resistors</u> (Extension) - Students create electrical circuits to investigate the flow of electricity, switches, globes, conductors and insulators. This could then lead into this activity.	6C.S3.A2.1 Using Resistors	1, 10
Lesson – Leaking Taps		In this lesson, students investigate leaking taps around the school and develop some skills that would be useful in fixing these taps. As WHS issues prevent the actual changing of tap fittings, the skills developed in this lesson focus on the measuring and ordering of washers.	Washer Diameter Millimetres Measure Order Tap Leak	For this activity to work well the school will need to have a few leaking taps. If there isn't any then perhaps certain taps can be turned slightly on for students to find and to calculate the amount of water that is leaking. <u>Water Usage:</u> Students do a persuasive piece of writing to the Principal or present the issues to the class using multimedia, about conserving water in the school. This activity could meet various AC English, Mathematics and Science indicators depending on how it is conducted.	6C.S3.G1.1 Leaky Pipes	