Servicing the Community – Mechanics

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

Magazine with activities

Coby is a heavy vehicle mechanic at Ranger Mine and Justin and Jonathan are light vehicle mechanics in Galiwin'ku.

Students will learn:

- the type of work mechanics do to keep people and things moving
- how to use reference materials to find out the right tool to use for the job
- to use literacy and numeracy skills to order the correct bolts by measuring them in millimetres and looking up a catalogue
- how to stay safe by identifying hazards and filling in a Job Hazard Analysis (JHA) table

Curriculum Links

PreVET reinforces and authentically contextualises curriculum learning. For detailed mapping, see 6a-curriculum-mapping.xlsx

Australian Curriculum Prior Learning

- English: Receptive mode – Students compare and analyse information in different texts, including images and text organisation.
- Mathematics: Students use scaled instruments to measure lengths and convert units.

T-9 Net Diagnostic Continua

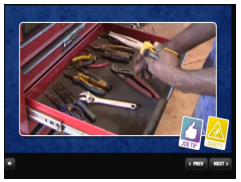
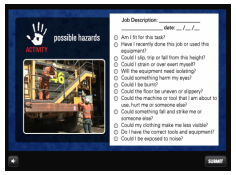
- Reading: Breaking the written code, Using text and What do I want to say?
- Numeracy: Shapes & Measurement.

Australian Core Skills Framework

- Reading, Oral Communication Levels 1-2
- Numeracy Level 2

Overview of 6A Mechanics – Activities

See m6a-transcript-answers.pdf for Activity Answers, m6a-quiz-answers.pdf for Quiz Answers.

		Overview	Key Vocabulary	Teaching ideas	Related Games	Quiz Questions
A1 Using Tools		Investigating the types of tools that mechanics use for different jobs and how they know which tool to use. Key points: - Using reference texts to find out which tool to use	Crimping Plier Screw head Long nose plier Locking plier	This topic may be a good first topic for classes, particularly those with many boys, for a variety of reasons. • The first being that there is an interview with a young man named Justin who has only recently finished school in Darwin and gone back to his community to get an apprenticeship. Students may relate to him as he is so young compared to other people interviewed in the magazines. • This magazine is also on a topic that many boys (& some girls) are already interested in – mechanics. • The whole topic is short as it consists of relatively quick activities compared to other topics in the PreVET magazines.	6A.S3.G2.1 Tool NO 6A.S3.A4 Tools Word Puzzle	1, 2, 3, 10
A2 Hazard Control		Learn about staying safe by identifying hazards and filling out a Job Hazard Analysis (JHA). Key points: - Using a table to record information or identify hazards and list them in a Job Hazard Analysis (JHA)	Job Hazard Analysis Diesel Fitter Hydraulic lines Diff (Differential)		6A.S3.G1.1 Safe Choices 6A.S3.A2 Site Audit Pro Lite 6A.S3.A3 Safety Word Find	4, 5, 6, 7
A3 Ordering Parts		Using literacy and numeracy skills to measure and order the correct parts. Key Points: -Measuring bolts in mm - Finding bolts in catalogues according to their measurements	Diameter Length Millimetre Measure Catalogue Metric	Students will need to know the term "diameter" – the use of an "M" in front of the diameter stands for metric. There is an opportunity to discuss what this term means – E.g. using imperial versus metric. Relate metric to the base ten counting system and show that the prefixes change at 10, 100 and 1000, just like place value.	6A.S3.A1 Photo Measures Lite	8, 9, 10
Lesson – Bolts		Students measure bolts to determine bolt specifications and catalogue numbers. Students also measure the head of the bolt to determine the appropriate spanner/socket to be used.		Teachers could teach about the relationship between circumference and diameter, and thus introduce pi. Finding Pi To do this activity students will need a piece of string, ruler and either a compass to draw circles, a worksheet with a variety of circles with the centre point marked or a variety of round containers. Ask the students to measure the diameter of the circles. Using a piece of string calculate the circumference of each of the circles by wrapping the string around the circle and then straightening it out and measuring it with a ruler. Ask if the students can see a pattern between the circumferences and the diameters. Have the students divide the circumference by the diameter of the circle. What do the notice? All the answers should be approximately 3...hence pi = 3.1417...		