



Literacy and numeracy profile:

# Automotive Refinisher

**This profile identifies the literacy and numeracy tasks and skills used by automotive refinishing apprentices and technicians. These tasks and skills involve reading, writing, speaking and listening, numeracy, critical thinking and the use of information and communication technology.**

## Reading tasks

*“Read” implies that the person reads and understands.*

*Refinishers read many texts from a computer display screen.*

### Read signs and short texts

- Paint numbers
- Part descriptions
- Abrasive grades and grits (e.g. sandpaper)
- Safety signs
- Vehicle identification numbers (VIN)
- Chassis numbers
- Scales displays.

### Read charts, graphs and tables

- Paint formulas
- Colour sheets
- Tint properties charts.

### Read forms on job

- Job sheets
- Paint checklists
- Quality checklists.

### Read notices and memos

- Work schedule on whiteboard in workshop
- Notices on notice board (e.g. staff meeting, social activity)
- Health and safety notice (e.g. reminder to wear gloves when handling solvents).

### Read instructions

- Spray booth/baking oven operating instructions
- Paint mixing instructions (on computer)
- Safety precaution instructions on product containers
- Material Safety Data Sheets (MSDS)
- Health and Safety and Emergency procedures.

### Read training materials

- Apprenticeship training materials such as study guides, open and/or closed book assessments, practical assessments, CDX (paper and computer based)
- MITO Training Folder
- Supplier training handouts
- I-CAR training information
- PowerPoint presentations.

### Read employment related material

- Code of Conduct or company policies, processes, and procedures
- Employment agreement
- Training agreement
- Induction materials
- First aid and accident information.



## Reading underpinning tasks and skills

Interpret graphic symbols.

- Signs
- Colour coding.

Recognise the features of a range of texts.

- Signs
- Codes
- Forms
- Drawings
- Procedures.

Recognise number formats.

- Paint numbers
- Vehicle identification numbers (VIN)
- Vehicle registration numbers
- Phone numbers.

Match numbers or codes across different texts.

Understand common and industry vocabulary.

Understand common and industry abbreviations.

Find out the meaning of unfamiliar words or phrases.

Follow written instructions (which may include diagrams).

Use a guide to document contents.

- Index
- Table of contents
- Key
- Legend.

Identify the main points from a page of text.

Scan text or table or label to find specific piece of information.

Read text thoroughly.

Make inferences based on what written material does not say.

Understand information in graphic material.

- Tables
- Graphs
- Diagrams
- Charts.

Interpret material read.

- Summarise material read in own words
- Take notes from material read
- Report accurately on the information read.



## Writing tasks

### Write short notes

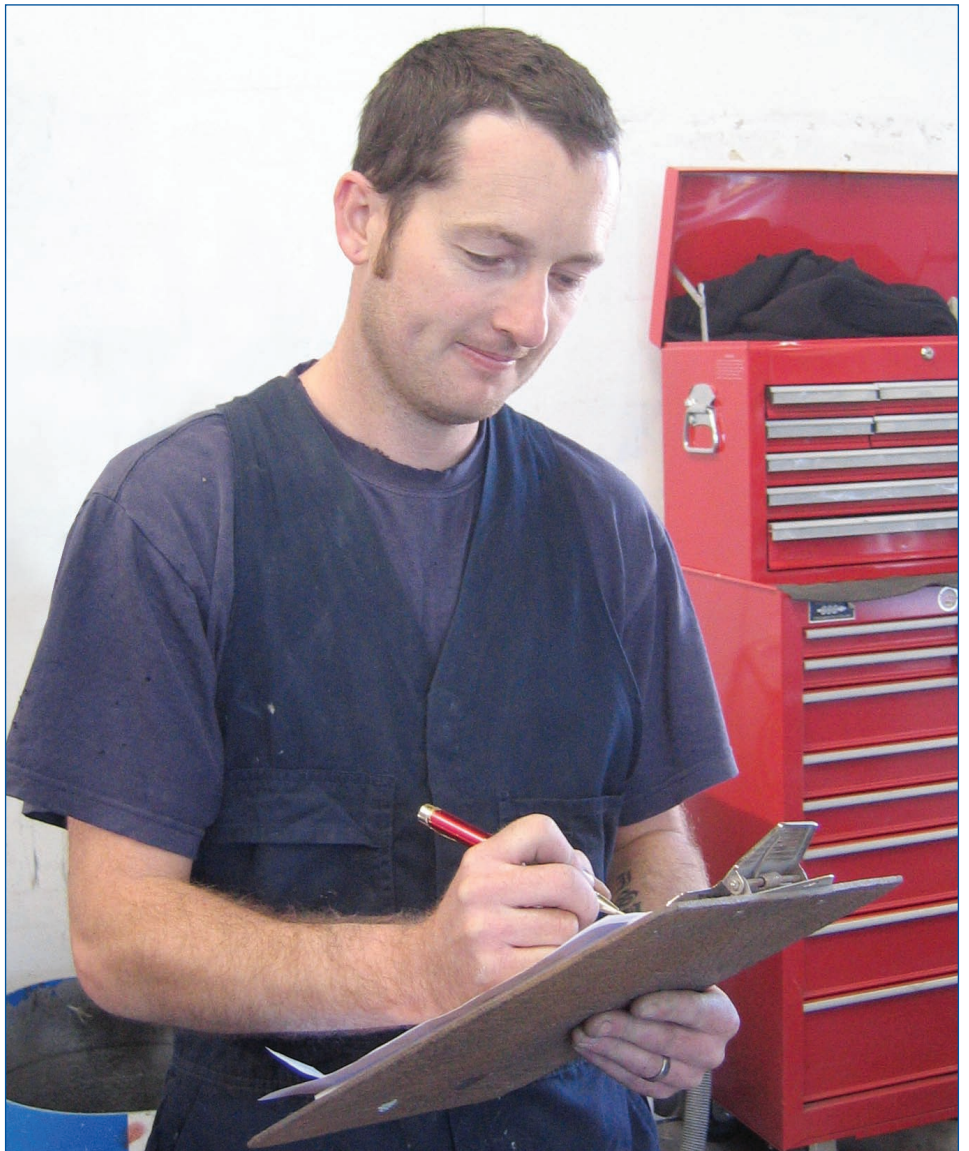
- Write reminder notes to reorder paint and other materials
- Write down formula used when mixing customised paint tints.

### Complete workplace forms

- Paint checklist
- Quality checklist
- Time sheet
- Leave form.

### Write for training purposes

- Record notes in Practical Jobs Record Book
- Complete MITO Training Folder - including Practical Task Evidence Sheets
- Complete exercises in study guides
- Write answers to open book and closed book assessment questions.



## Writing underpinning tasks and skills

Understand that different writing styles are used for different types of writing.

- Note
- List
- Checklist
- Form
- Study guide and open/closed book assessment questions.

Complete forms using numbers, single words, or short sentences.

- Handwriting must be legible
- Abbreviations can be used
- Spelling must be understandable, but correct spelling is not essential
- Grammar and punctuation must be understandable.

Take notes from training material.

Write short answers to assessment questions (during apprenticeship).

- Handwriting must be legible
- Abbreviations can be used
- Spelling must be understandable, but correct spelling is not essential
- Grammar and punctuation must be understandable.

# Speaking and listening tasks

Speaking and listening includes non-verbal communication

## Listening

- Listen to instructions from workshop supervisor
- Listen and respond to requests for assistance from colleagues
- Listen to explanations and on-job training.

## Speaking

- Ask questions to ensure you have understood what another person said
- Ask for assistance when needed
- Report work progress to workshop supervisor
- Report issues or potential hazards to supervisor.

## Interactive speaking and listening

- Communicate with colleagues (teamwork) during day-to-day work situation
- Communicate in noisy environment using hand signals and gestures
- Make suggestions to help other automotive refinishers with their work
- Participate in team meetings and briefings
- Answer oral questions during unit standard assessments
- Discuss apprenticeship progress with MITO Industry Training Advisor
- Participate in technical training sessions with paint company representatives.



## Interactive speaking and listening - customer contact

- Talk politely and appropriately to customers (e.g. when picking up or dropping off the customer or the vehicle).

*Note: Apprentices rarely speak to customers or insurance assessors about the details of a paint job. In most workshops the estimator or a senior person carries out this task. Apprentices are most likely to have customer contact when dropping customers off or picking them up.*

# Speaking and listening underpinning tasks and skills

Speak clearly.

Discuss topics which are appropriate in work context.

Use words, pronunciation, and tone appropriate to situation and audience.

Open and close conversations appropriately.

Give information in a sensible order.

Understand that communication is a two way process.

Use active listening skills.

- Repeat message back to sender
- Summarise instructions in own words
- Use following techniques e.g. say "aha" or "okay" as you follow what someone is saying.

Present and defend a viewpoint.

Read information out loud.

Use hand signals and gestures to communicate in noisy environment.

Use questioning techniques including using open and closed questions to gain information, check understanding and encourage further discussion.

Summarise to check or clarify details.

Use suitable body language.

Read body language of person speaking, or being spoken to, and respond appropriately.

Understand that there are barriers to communication, especially in cross-cultural situations.

Present a positive, enthusiastic image to others.

Use assertive communication techniques.

## Numeracy tasks

- Use vehicle identification number (VIN) to find information about paint tint on vehicle
- Use cost codes/job numbers
- Use electronic scales
- Identify paint tints by alpha numeric codes
- Identify grit numbers on abrasive products (e.g. sandpaper)
- Mix paint to specified ratio
- Measure paint using grams and millilitres
- Follow colour tinting graph
- Monitor temperature of bake oven
- Monitor time in bake oven
- Accurately record the time taken to complete a job (may involve fractions of an hour)
- Estimate or calculate how much paint will be needed to cover the surface area, based on paint coverage properties (some paint mixing software does this calculation automatically)
- Follow directions for pick ups and drop offs
- Use map to find location for pick ups and drop offs.

## Numeracy underpinning tasks and skills

Recognise numbers as part of a code.

Use numbers.

- Whole numbers
- Decimals
- Fractions
- Percentages
- Ratios.

Do number problems.

- Addition
- Subtraction
- Multiplication
- Division.

Understand place value.

Estimate quantities.

- Volume
- Area.

Measure accurately.

- Weight
- Volume
- Time
- Temperature.

Use 12 or 24 hour clock.

Understand tolerance in relation to paint weight measurements.



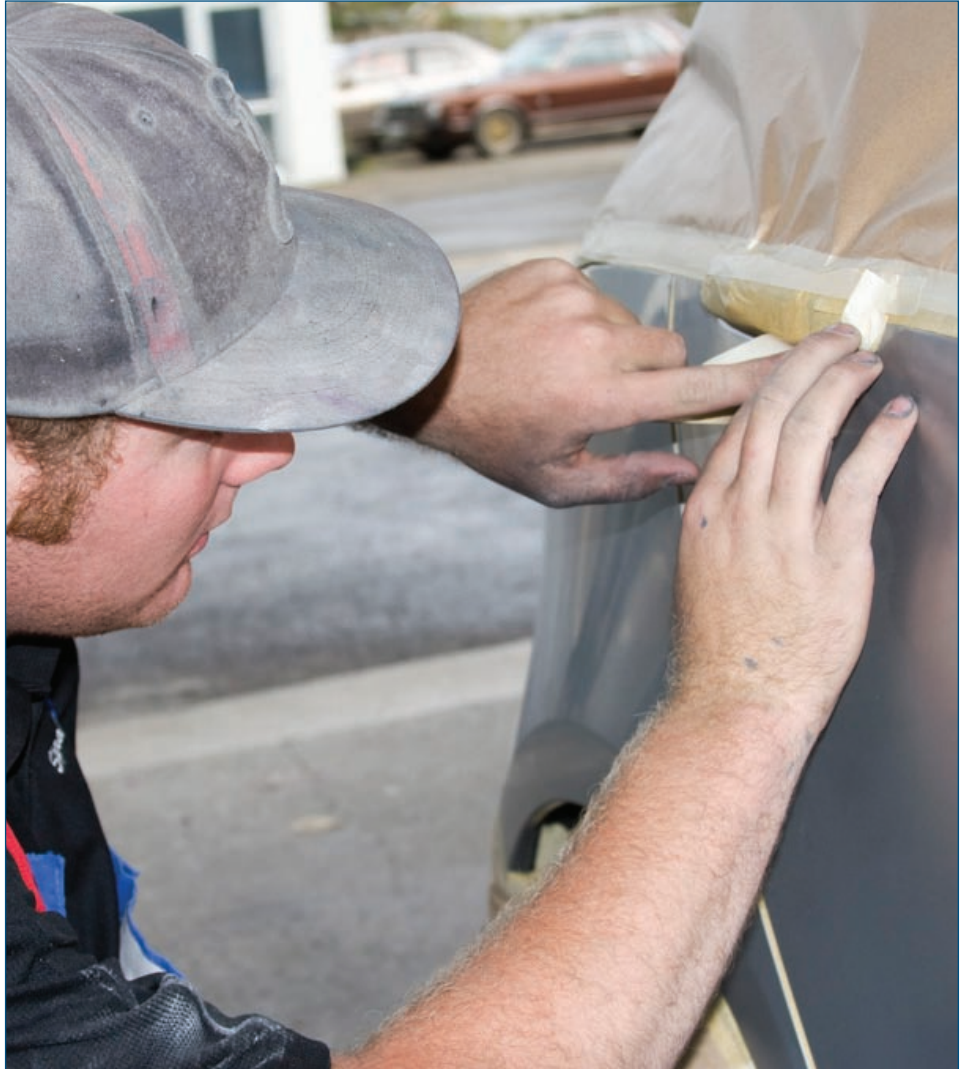
## Critical thinking tasks

*Critical thinking relates to how we use knowledge and experience to make decisions about what we will do.*

- Prepare surface to ensure the quality of finished paint work
- Apply masking that will protect any areas that should not be spray painted
- Discern minor differences in colour and shade
- Apply knowledge of colour theory to adjust colour tints to match the vehicle perfectly
- Follow manufacturers' instructions when applying paint to vehicle
- Apply paint to the vehicle in a logical progression that will avoid rework
- Assess completed work to determine if finish is up to the required standard
- Deal with problems e.g.
  - health and safety incident
  - paint and solvent spills
  - dangerous goods issue
  - injury
  - paint contamination (e.g. dust, wax)
- Identify any other areas of the vehicle that need touching up that are not on the work sheet

- Get workshop supervisor's approval before completing work not listed on the work sheet
- Ask for help when needed

- Identify when paint gun needs to be maintained and carry out the maintenance
- Identify if other equipment needs maintenance or repair and take action.



## Critical thinking underpinning tasks and skills

Develop a schema of colours, tints, nuances and variations to draw on when matching paint.

Apply knowledge of good preparation practice to work carried out.

Apply knowledge of safety requirements and principles to work practice.

Apply knowledge of the features of a good finished product to work carried out.

Plan a step by step process to complete work.

Identify when personal knowledge and skills are sufficient to work on own.

Identify when personal knowledge and skills are not sufficient and know who to ask for help.

Recall and follow specified procedures to deal with problems.

## Information and Communication Technology tasks

### *Automotive refinishers*

- Use computer based systems to mix paint tints

### *Some automotive refinishers*

- Use computer based systems to clock on and off specific jobs
- Consult manuals or find specifications held on CD or the internet

- Take and save digital photographs of the progress of their work
- Use colour spectrometer to assess colour and search for colour formulas
- Use computer based training materials.



## Information and Communication Technology underpinning tasks and skills

Operate a computer or digital device.

- Start the computer or device
- Log-in if needed
- Start appropriate application
- Exit appropriate application
- Turn off computer or device.

Identify elements of computer applications and the function of the element (e.g. menus and menu options, command buttons, icons, toolbars).

Identify appropriate computer application for task (e.g. spreadsheet, word processor, e-mail, web browser, drawing, company systems).

Operate computer application(s).

Enter or update data using a computer (using keyboard, mouse or other input devices).

Connect devices (e.g. digital camera, spectrometer) to computer.

## Link to Learning Progressions for Adult Literacy and Numeracy

The Tertiary Education Commission has developed the Adult Learning Progressions. They provide a framework and language for describing literacy and numeracy skills and knowledge. There are strands for Reading, Writing, Speaking, Listening and Numeracy. Each strand is divided into progressions and there are six steps (step 1 is lower and step 6 is higher). There are assessment tools that measure what step a person is on at the different strands.

We can use the Adult Learning Progressions to help us understand how to build the literacy and numeracy skills and knowledge that Automotive Refinisher apprentices and technicians need.

The information here explains how the tasks described in this profile relate to the Adult Learning Progressions.

### Read with Understanding:

All Automotive Refinisher apprentices will read a small range of on-job forms, signs and short instructions. These texts map to step 2 on the Read with Understanding strand.

Apprentices need to quickly learn to read specialist terms relating to refinishing. The specialist vocabulary used in refinishing maps to step 4 and 5 on the Decoding and Vocabulary progressions of the Read with Understanding strand.

To use their MITO learning material, they also need to be able to locate, organise, summarise, compare and evaluate information from a range of texts. These skills map to step 4 on the Read with Understanding strand.

Automotive Refinisher apprentices will need to quickly develop their reading skills so that they can achieve step 4 on the Read with Understanding strand.

### Write to Communicate:

Automotive Refinisher apprentices do very little writing in the course of their job. Examples include marking checklists, and making lists of materials needed. Most writing is one word or short sentences, and little punctuation is required. These tasks map to step 1 and 2 on many of the progressions in the Write to Communicate strand.

Apprentices need to be able to spell and write specialist refinishing words, including colour terms. The specialist vocabulary used in refinishing maps to step 4 on the Spelling and Vocabulary progressions of the Write to Communicate strand.

As part of their training, Automotive Refinisher apprentices must take notes to remember what they have learned, write answers to assessment questions, and complete their MITO practical task records. These tasks map to step 4 and 5 on the Write to Communicate strand.

Automotive Refinisher apprentices will need to develop their writing skills so they can achieve at least step 4 on the Write to Communicate strand.

### Speak to Communicate and Listen with Understanding:

Automotive Refinisher technicians and apprentices use their speaking and listening skills all the time during their working day. Most of the time, they talk to colleagues and their supervisor. At the beginning of their apprenticeship, Automotive Refinisher apprentices take part in simpler conversations, using words they already know. These tasks map to step 3 on the Listen with Understanding strand, and step 2 to 3 on the Speak to Communicate strand.

Apprentices must have strategies to help when comprehension breaks down, as this will help them understand detailed instructions and explanations from their on-job trainers.

Apprentices need to quickly develop their speaking and listening skills and need to be at least at step 4 on most progressions of the Listen with Understanding and Speak to Communicate strands.

They will also need to get to step 4 to 5 on the Listen with Understanding Vocabulary progression, as they will be exposed to specialist refinishing words every day.

### Numeracy Progression Strands:

Automotive Refinishers carry out tasks (e.g. mixing paint and working out paint quantities) that require them to be at step 5 to 6 on the Numeracy Progression strands - Make Sense of Number to Solve Problems, and Measure and Interpret Shape and Space.

They also use graphed data presented on the computer when mixing paint tints. To interpret these graphs they need to understand what the data show. This task maps to steps 1 and 2 of the Analysing Data for Interpretation progression of the Reason Statistically strand.

Apprentices will need to either have the numeracy skills and knowledge when they start their apprenticeship, or develop them very soon after coming into their apprenticeship.

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