

SKILLED**TRADES**^{BC}

PROGRAM OUTLINE

Painter and Decorator

Implementation date: September 1, 2023

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PAINTER AND DECORATOR PROGRAM OUTLINE

**APPROVED BY INDUSTRY
APRIL 2023**

**IMPLEMENTATION DATE
SEPTEMBER 1, 2023**

THIS BC PROGRAM HAS BEEN HARMONIZED AND IS BASED ON RSOS 2022

**Developed by
SkilledTradesBC
Province of British Columbia**

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Section 1

INTRODUCTION

Painter and Decorator

Foreword

This revised Program Outline is intended as a guide for instructors, apprentices, and employers of apprentices as well as for the use of industry organizations, regulatory bodies, and provincial and federal governments. It reflects updated standards based on the 2022 Red Seal Occupational Standard (RSOS). It was developed by British Columbia industry and instructor subject matter experts.

Practical instruction by demonstration and student participation should be integrated with classroom sessions. Safe working practices, even though not always specified in each operation or topic, are an implied part of the program and should be stressed throughout the apprenticeship.

This Program Outline includes a list of recommended reference textbooks that are available to support the learning objectives and the minimum shop requirements needed to support instruction.

Competencies are to be evaluated through written exams and practical assessments. A passing grade is achieved by getting an overall mark of 70%. See the Assessment Guidelines in Section 4 for more details.

Achievement Criteria are included for competencies that require a practical assessment. The intent of including Achievement Criteria in the Program Outline is to ensure consistency in training across the many training institutions in British Columbia. Their purpose is to reinforce the theory and to provide a mechanism for evaluation of the learner's ability to apply the theory to practice. It is important that these performances be observable and measurable and that they reflect the skills spelled out in the competency. The conditions under which these performances will be observed and measured must be clear to the learner as well as the criteria by which the learner will be evaluated. The learner must also be given the evaluation criteria.

The performance spelled out in the Achievement Criteria is a suggested performance and is not meant to stifle flexibility of delivery. Training providers are welcome to substitute other practical performances that measure similar skills and attainment of the competency. Multiple performances may also be used to replace individual performances where appropriate.

SAFETY ADVISORY

Be advised that references to the WorkSafe BC safety regulations contained within these materials do not/may not reflect the most recent Occupational Health and Safety Regulation (the current Standards and Regulation in BC can be obtained on the following website: <http://www.worksafebc.com>). Please note that it is always the responsibility of any person using these materials to inform themselves about the Occupational Health and Safety Regulation pertaining to their work.

Acknowledgements

Industry and Instructor Subject Matter Experts retained to assist in the development and review of this Program Outline:

- Fred King Corrocoat Services
- Stuart Wood Lincor
- Chico Albino Finishing Trades Institute
- Brian Mosby Finishing Trades Institute

SkilledTradesBC would like to acknowledge the dedication and hard work of all the industry representatives appointed to identify the training requirements of the Painter and Decorator occupation.

Previous Contributors

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- Chico Albino
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- Alan Naval
- Clinton Pazdzierski
- Joseph Racanelli
- Mark Tenbroek
- Jon Walker

How to Use this Document

This Program Outline has been developed for the use of individuals from several different audiences. The table below describes how each section can be used by each intended audience.

Section	Training Providers	Employers/ Sponsors	Apprentices	Challengers
Program Credentialing Model	Communicates program length and structure, and all pathways to completion	Illustrates the length and structure of the program	Illustrates the length and structure of the program, and pathway to completion	Illustrates the challenger pathway to Certificate of Qualification
OAC	Communicates the competencies that industry has defined as representing the scope of the occupation	Displays the competencies that an apprentice is expected to demonstrate in order to achieve certification	Displays the competencies apprentices will achieve as a result of program completion	Displays the competencies challengers must demonstrate in order to challenge the program
Training Topics and Suggested Time Allocation	Shows proportionate representation of general areas of competency (GACs) at each program level, the suggested proportion of time spent on each GAC, and percentage of time spent on theory versus practical application	Shows the scope of competencies covered in the technical training, the suggested proportion of time spent on each GAC, and the percentage of that time spent on theory versus practical application	Shows the scope of competencies covered in the technical training, the suggested proportion of time spent on each GAC, and the percentage of that time spent on theory versus practical application	Shows the relative weightings of various competencies of the occupation on which assessment is based
Program Content	Defines the objectives, learning tasks, high level content that must be covered for each competency, as well as defining observable, measurable achievement criteria for objectives with a practical component	Identifies detailed program content and performance expectations for competencies with a practical component; may be used as a checklist prior to signing a recommendation for certification (RFC) for an apprentice	Provides detailed information on program content and performance expectations for demonstrating competency	Allows individual to check program content areas against their own knowledge and performance expectations against their own skill levels
Assessment Guidelines	Shows the general areas of competency covered in each level of technical training, the theory and practical grading weight, and the calculation method for final percentage marks	Shows the general areas of competency covered in the technical training, the grading weight for each GAC, and the percentage of that time spent on theory versus practical application	Shows the general areas of competency covered in each level of technical training, the theory and practical grading weight, and the calculation method for final percentage marks	Shows the relative weightings of various general areas of competency within the occupation on which assessment is based

Section	Training Providers	Employers/ Sponsors	Apprentices	Challengers
Training Provider Standards	Defines the facility requirements, tools and equipment, reference materials (if any) and instructor requirements for the program	Identifies the tools and equipment an apprentice is expected to have access to; which are supplied by the training provider and which the student is expected to own	Provides information on the training facility, tools and equipment provided by the school and the student, reference materials they may be expected to acquire, and minimum qualification levels of program instructors	Identifies the tools and equipment a tradesperson is expected to be competent in using or operating, which may be used or provided in a practical assessment

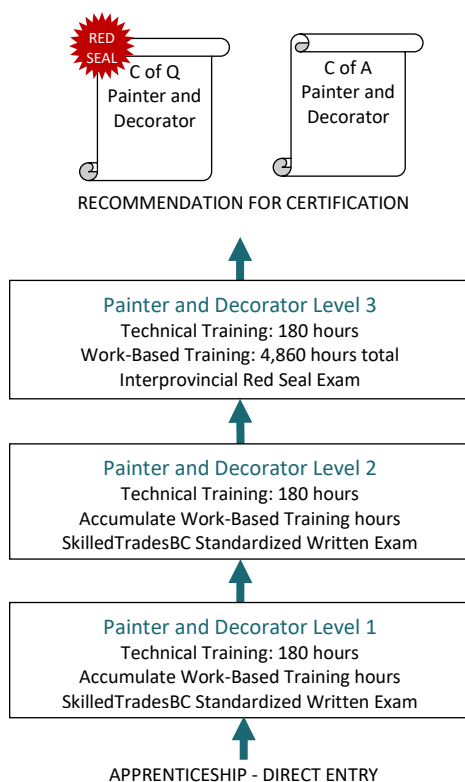
Section 2
PROGRAM OVERVIEW
Painter and Decorator

Program Credentialing Model

Apprenticeship Pathway

This graphic provides an overview of the Painter and Decorator apprenticeship pathway.

*C of Q = Certificate of Qualification
C of A = Certificate of Apprenticeship*



CROSS-PROGRAM CREDITS

Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program

Corrections Canada/BC Work Experience Program	Technical Training: None Work-Based Training: 800 hours
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Occupational Analysis Chart

PAINTER AND DECORATOR

Occupation Description: “Painter and Decorator” means a person who prepares and applies paint or any organic/inorganic coating when applied in the same manner as paints; sand/hydro blasts for cleaning, decorative or preparatory purposes to steel, concrete or wood; installs rubber, fiberglass, acid resistant or metalized linings to tanks, pipes, or other vessels; installs all wall covering on buildings or structure surfaces.

USE SAFE WORK PRACTICES A	Manage workplace hazards A1	Interpret OHS regulations and WorkSafeBC standards A2	Apply confined space awareness A3	Use fall protection systems and equipment A4	Use personal protective equipment A5	Use fire safety procedures A6
	1	1	1	1	1	1
	Apply First Aid certification A7					
	1					
USE TOOLS AND EQUIPMENT B	Use hand tools and measuring equipment B1	Use abrasive media B2	Use power and pneumatic tools B3	Use access equipment B4	Use hoisting and lifting equipment B5	
	1	1	1	1 2	1 2	
ORGANIZE WORK C	Use mathematics C1	Interpret drawings and specifications C2	Communicate with others C3	Handle materials C4	Plan a project C5	
	1 2 3	3	1 3	1	3	
PREPARE SURFACES D	Prepare and repair drywall and plaster surfaces D1	Prepare wood surfaces D2	Treat and repair concrete and masonry surfaces D3	Prepare and repair metal surfaces D4	Perform abrasive blasting D5	Perform hydro cleaning D6
	1 3	1	1 3	1 2	2	1 2

**Section 2
Program Overview**

APPLY PAINT AND COATINGS E	Apply paint E1 1	Apply industrial coatings and materials E2 2	Identify and correct paint/coating failures E3 1 2	Use air spray equipment E4 2	Use airless spray equipment E5 1	Use specialty spray equipment E6 3
	Use thermal spray E7 2	Use fibre-reinforced plastic E8 2	Apply caulking E9 1			
APPLY WALL COVERING PROCEDURES F	Prepare and install wall coverings F1 2	Apply wall coverings F2 2 3				
	Apply wood finishes G1 2	Apply decorative finishes G2 3	Apply graphics G3 1			
APPLY FINISHES G						
	Use colour theory H1 1	Mix and match colours H2 1				
APPLY COLOUR THEORY H						

Training Topics and Suggested Time Allocation

PAINTER AND DECORATOR – LEVEL 1

		% of Time Allocated to:			
		% of Time	Theory	Practical	Total
Line A	USE SAFE WORK PRACTICES	20%	85%	15%	100%
A1	Manage workplace hazards		✓		
A2	Interpret OHS regulations and WorkSafeBC standards		✓		
A3	Apply confined space awareness		✓		
A4	Use fall protection systems and equipment		✓	✓	
A5	Use personal protective equipment		✓	✓	
A6	Use fire safety procedures		✓	✓	
A7	Apply First Aid certification		✓	✓	
Line B	USE TOOLS AND EQUIPMENT	10%	80%	20%	100%
B1	Use hand tools and measuring equipment		✓		
B2	Use abrasive media		✓	✓	
B3	Use power and pneumatic tools		✓	✓	
B4	Use access equipment		✓	✓	
B5	Use hoisting and lifting equipment		✓		
Line C	ORGANIZE WORK	10%	100%	0%	100%
C1	Use mathematics		✓		
C3	Communicate with others		✓		
C4	Handle materials		✓		
Line D	PREPARE SURFACES	25%	50%	50%	100%
D1	Prepare and repair drywall and plaster surfaces		✓	✓	
D2	Prepare wood surfaces		✓	✓	
D3	Treat and repair concrete and masonry surfaces		✓	✓	
D4	Prepare and repair metal surfaces		✓	✓	
D6	Perform hydro cleaning		✓	✓	
Line E	APPLY PAINT AND COATINGS	25%	50%	50%	100%
E1	Apply paint		✓	✓	
E3	Identify and correct paint/coating failures		✓		
E5	Use airless spray equipment		✓	✓	
E9	Apply caulking		✓	✓	
Line G	APPLY FINISHES	5%	30%	70%	100%
G3	Apply graphics		✓	✓	
Line H	APPLY COLOUR THEORY	5%	50%	50%	100%
H1	Use colour theory		✓	✓	
H2	Mix and match colours		✓	✓	
Total Percentage for Painter and Decorator Level 1		100%			

Training Topics and Suggested Time Allocation

PAINTER AND DECORATOR – LEVEL 2

		% of Time Allocated to:			
		% of Time	Theory	Practical	Total
Line B	USE TOOLS AND EQUIPMENT	5%	50%	50%	100%
B4	Use access equipment		✓		
B5	Use hoisting and lifting equipment		✓	✓	
Line C	ORGANIZE WORK	5%	100%	0%	100%
C1	Use mathematics		✓		
Line D	PREPARE SURFACES	25%	60%	40%	100%
D4	Prepare and repair metal surfaces		✓	✓	
D5	Perform abrasive blasting		✓	✓	
D6	Perform hydro cleaning		✓		
Line E	APPLY PAINT AND COATINGS	25%	60%	40%	100%
E2	Apply industrial coatings and materials		✓	✓	
E3	Identify and correct paint/coating failures		✓		
E4	Use air spray equipment		✓	✓	
E7	Use thermal spray		✓	✓	
E8	Use fibre-reinforced plastic		✓		
Line F	APPLY WALL COVERING PROCEDURES	20%	40%	60%	100%
F1	Prepare and install wall coverings		✓	✓	
F2	Apply wall coverings		✓	✓	
Line G	APPLY FINISHES	20%	40%	60%	100%
G1	Apply wood finishes		✓	✓	
Total Percentage for Painter and Decorator Level 2		100%			

Training Topics and Suggested Time Allocation

PAINTER AND DECORATOR – LEVEL 3

		% of Time Allocated to:			
		% of Time	Theory	Practical	Total
Line C	ORGANIZE WORK	20%	50%	50%	100%
C1	Use mathematics		✓		
C2	Interpret drawings and specifications		✓	✓	
C3	Communicate with others		✓		
C5	Plan a project		✓	✓	
Line D	PREPARE SURFACES	10%	60%	40%	100%
D1	Prepare and repair drywall and plaster surfaces		✓	✓	
D3	Treat and repair concrete and masonry surfaces		✓	✓	
Line E	APPLY PAINT AND COATINGS	15%	75%	25%	100%
E6	Use specialty spray equipment		✓	✓	
Line F	APPLY WALL COVERING PROCEDURES	25%	40%	60%	100%
F2	Apply wall coverings		✓	✓	
Line G	APPLY FINISHES	30%	40%	60%	100%
G2	Apply decorative finishes		✓	✓	
Total Percentage for Painter and Decorator Level 3		100%			

Section 3
PROGRAM CONTENT
Painter and Decorator

Level 1

Painter and Decorator

Line (GAC): A **USE SAFE WORK PRACTICES**

Competency: A1 **Manage workplace hazards**

Objectives

To be competent in this area, the individual must be able to:

- Recognize hazards in a given worksite scenario
- Conduct a workplace assessment
- Demonstrate correct emergency procedures for a given hazard
- Minimize hazards by applying safe work practices at a given worksite
- Apply WHMIS Certification

LEARNING TASKS

1. Describe hazards in the Painter and Decorator trade

2. Conduct a workplace assessment

3. Describe and interpret worksite safety policies

CONTENT

- Acute and chronic health
- Sharp objects – glass and metal
- Overhead hazards/Moving equipment
- Electrical
- Flammable and explosive materials
- Atmospheres
 - Flammable
 - Explosive
 - Oxygen-deficient
- Environmental
- Slips, trips and falls
- Toxic substances
 - Biohazards
 - Heavy Metals
 - Asbestos
 - Industry products
- Respiratory
- Repetitive strain injuries
- Back injuries

- As per job requirements

- Site orientations
 - Hazard assessment
 - Conditions
 - Meeting requirements
 - Reporting hazards and incidents
 - Investigations
 - Committees

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <p>4. Demonstrate emergency procedures</p> | <ul style="list-style-type: none"> ○ Employee orientation ○ First-aid ○ Hearing ○ Records and statistics ○ Non-compliance procedures ● First aid facilities ● Reports ● Reports to first aid attendant ● Tape identification (red, yellow) ● Minimum standards ● Acts and regulations |
| <p>5. Control workplace hazards</p> | <ul style="list-style-type: none"> ● Emergency shutoffs ● Fire control systems ● Eye wash facilities ● Emergency exits ● Emergency contact/phone numbers ● Marshalling/mustering areas ● Emergency horn protocol ● Emergency rescue procedures |
| <p>6. Apply WHMIS certification</p> | <ul style="list-style-type: none"> ● Exposure Control Plan (ECP) ● Lifting techniques ● Safety/equipment inspection ● Engineering controls ● Administrative controls ● Lock-out/tag-out ● OHS Programs <ul style="list-style-type: none"> ○ Regulatory ○ Contractor-specific ● WHMIS training ● Documentation of certification |

Line (GAC): **A USE SAFE WORK PRACTICES**
Competency: **A2 Interpret OHS regulations and WorkSafeBC standards**

Objectives

To be competent in this area, the individual must be able to:

- Locate the Parts of the Occupational Health and Safety Regulations applicable to the Painter and Decorator workplace
- Interpret the Parts of the Occupational Health and Safety Regulations applicable to the Painter and Decorator workplace

LEARNING TASKS	CONTENT
1. Locate terms used in the Workers Compensation Act	<ul style="list-style-type: none"> • Applicable OHS Regulations
2. Locate the conditions under which compensation will be paid	<ul style="list-style-type: none"> • Applicable OHS Regulations
3. Locate the general duties of employers, employees and others	<ul style="list-style-type: none"> • Applicable OHS Regulations
4. Locate the Workers Compensation Act requirements for the reporting of accidents	<ul style="list-style-type: none"> • Applicable OHS Regulations
5. Locate the “Core Requirements” of the Occupational Health and Safety Regulations	<ul style="list-style-type: none"> • Definitions • Application • Rights and Responsibilities <ul style="list-style-type: none"> ○ Health and safety programs ○ Investigations and reports ○ Workplace inspections ○ Right to refuse work • General conditions <ul style="list-style-type: none"> ○ Building and equipment safety ○ Emergency preparedness ○ Preventing violence ○ Working alone ○ Ergonomics ○ Illumination ○ Indoor air quality ○ Smoking
6. Locate the “General Hazards Requirements” of the Occupational Health and Safety Regulations	<ul style="list-style-type: none"> • Chemical and biological substances • Substance specific requirements • Noise, vibration, radiation, and temperature • Personal protective clothing and equipment • Confined spaces

LEARNING TASKS

7. Interpret Occupational Health and Safety information relevant to the Painter and Decorator trade

CONTENT

- De-energization and lockout
 - Fall protection
 - Tools, machinery, and equipment
 - Ladders, scaffolds, and temporary work platforms
 - Rigging and hoisting equipment
 - Mobile equipment
 - Transportation of workers
 - Traffic control
 - Electrical safety
-
- As per documentation

Line (GAC): A **USE SAFE WORK PRACTICES**
Competency: A3 **Apply confined space awareness**

Objectives

To be competent in this area, the individual must be able to:

- Recognize a confined space
- Apply confined space procedures

LEARNING TASKS

1. Describe a confined space

CONTENT

- Definition
 - Legal definition
 - Health and safety definition
 - Hazard classification
- Levels of confined space certification
- OHS regulation
- Responsibilities of worker and employer
- Procedures
 - Access/egress
 - Hole/fire watch
 - Air quality testing
 - Lock out and isolation
 - Ventilation
 - Cleaning/purging/venting/inerting
 - Rescue procedures
- Entry permits

2. Identify equipment used when working in a confined space

- Respiratory systems
- Ladders
- Tripod
- Harness
- Air tester

3. Demonstrate proper use of required equipment and procedures for a given confined space scenario

- Respiratory systems
- Ladders
- Tripod
- Harness
- Air tester

Line (GAC): **A USE SAFE WORK PRACTICES**
Competency: **A4 Use fall protection systems and equipment**

Objectives

To be competent in this area, the individual must be able to:

- Recognize fall hazards
- Apply fall protection controls for a given workplace scenario

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <p>1. Describe fall protection equipment</p> | <ul style="list-style-type: none"> • Fall arrest/restraint/work positioning equipment <ul style="list-style-type: none"> ○ Beam roller ○ Lanyard ○ Carabiner ○ Shock-absorbing devices ○ Retractable devices ○ Rope grab ○ Vertical and horizontal lines ○ Cable/nylon tie-off slings ○ Harnesses and waist belts ○ Standards (CSA, ASTM, ANSI) |
| <p>2. Describe fall protection systems</p> | <ul style="list-style-type: none"> • Railings/scaffolds • Barricades and control zones • Safety monitor • Nets • Rigging hardware • Anchor points • Assembly • Ladder systems • Vertical and horizontal systems |
| <p>3. Inspect, assemble, and disassemble fall protection equipment and systems</p> | <ul style="list-style-type: none"> • OHS Regulations • Routines/scheduled inspection and maintenance <ul style="list-style-type: none"> ○ Required reference material ○ Manufacturers' recommendations |
| <p>4. Develop a fall protection plan</p> | <ul style="list-style-type: none"> • Identify work area and hazards • List and choose equipment • Rescue procedures |

LEARNING TASKS

CONTENT

5. Use a harness as per industry standards

- Inspection
- Use
- As per specifications
 - D ring positioning
 - Proper fit

Achievement Criteria

Performance The learner will perform a fit test.

Conditions The learner will be given:

- Harness and instructions

Criteria The learner will score 70% on a rating sheet that reflects the following criteria:

- According to manufacturer’s recommendations
- Proper inspection
- D ring position
- Proper fit

Line (GAC): A USE SAFE WORK PRACTICES

Competency: A5 Use personal protective equipment

Objectives

To be competent in this area, the individual must be able to:

- Identify the appropriate personal protective equipment (PPE) for given workplace hazards
- Demonstrate proper use of PPE
- Maintain PPE according to manufacturer’s specifications

LEARNING TASKS

1. Describe PPE requirements

CONTENT

- Legal requirements
- Safety footwear
- Eye protection
- Ear protection
- Head protection
- Gloves
- Respiratory protection
- Fit test for respirator
- Clothing
 - Hi visibility
 - Thermal
 - Cooling
- Fall protection
- Visual indicators

2. Demonstrate proper use of PPE

- Proper fit
- Inspection before use

3. Maintain PPE

- Care
- Storage

Achievement Criteria

Performance The learner will be fit-tested for a respirator.

Conditions The learner will be given:

- A respirator

Criteria The learner will score 70% on a rating sheet that reflects the following criteria:

- Adherence to manufacturer’s protocol
- Comfortable fit
- Documentation

Line (GAC): A USE SAFE WORK PRACTICES

Competency: A6 Use fire safety procedures

Objectives

To be competent in this area, the individual must be able to:

- Identify the four classes of fires
- Apply preventative fire safety precautions when working near or handling hazardous materials
- Select and use fire extinguishers for the given class of fire and environmental condition

LEARNING TASKS

CONTENT

- | | |
|--|---|
| 1. Describe the conditions necessary to support a fire | <ul style="list-style-type: none"> • Air • Fuel • Ignition • Continued chemical reaction |
| 2. Describe the classes of fires according to the materials being burned | <ul style="list-style-type: none"> • Class A • Class B • Class C • Class D • Symbols and colours • NFPA (National Fire Protection Association) |
| 3. Apply preventative fire safety precautions for classified combustibles, flammables, and explosive materials | <ul style="list-style-type: none"> • Safe handling and storage of fFuels <ul style="list-style-type: none"> ○ Diesel ○ Gasoline ○ Propane ○ Natural Gas ○ Acetylene ○ Chemicals • Lubricants • Contaminated rags • Combustible explosive dusts • Aerosols • WHMIS <ul style="list-style-type: none"> ○ Classifications • Labelling • Ignition source • PPE • Ventilation <ul style="list-style-type: none"> ○ Purging ○ Inerting |

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <p>4. Describe the considerations and steps to be taken prior to fighting a fire</p> | <ul style="list-style-type: none"> • Warning others and fire department • Evacuation protocols • Training • Awareness of fire suppression/fighting systems |
| <p>5. Demonstrate proper use of fire extinguishers</p> | <ul style="list-style-type: none"> • Extinguisher selection • P.A.S.S. <ul style="list-style-type: none"> ○ Pull ○ Aim ○ Squeeze ○ Sweep |

Line (GAC): **A USE SAFE WORK PRACTICES**
Competency: **A7 Apply First Aid certification**

Objectives

To be competent in this area, the individual must be able to:

- Apply First Aid Certification

LEARNING TASKS

1. Apply First Aid Certification

CONTENT

- Documentation of Certification

Line (GAC): **B USE TOOLS AND EQUIPMENT**
Competency: **B1 Use hand tools and measuring equipment**

Objectives

To be competent in this area, the individual must be able to:

- Demonstrate proper use of hand tools appropriate for a given task
- Demonstrate proper use of measuring and testing equipment for a given task
- Inspect and maintain hand tools according to manufacturer’s specifications

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <p>1. Describe hand tools used in the Painting and Decorating trade</p> | <ul style="list-style-type: none"> • Refer to tool list in Section 5: Training Provider Standards • Types <ul style="list-style-type: none"> ○ Paint application tools ○ Basic hand tools • Uses |
| <p>2. Describe measuring and testing equipment used in the Painting and Decorating trade</p> | <ul style="list-style-type: none"> • Refer to tool list in Section 5: Training Provider Standards • Basic measuring and testing |
| <p>3. Demonstrate proper use of hand tools</p> | <ul style="list-style-type: none"> • Procedures according to manufacturer’s recommendations • Safety • Adjustment • Ergonomics |
| <p>4. Demonstrate proper use of measuring and testing equipment</p> | <ul style="list-style-type: none"> • Procedures according to manufacturer’s recommendations • Basic measuring and testing equipment |
| <p>5. Inspect and maintain hand tools</p> | <ul style="list-style-type: none"> • As per job requirement and manufacturer specifications • Maintenance and cleaning • Storage |

Line (GAC): **B** **USE TOOLS AND EQUIPMENT**
Competency: **B2** **Use abrasive media**

Objectives

To be competent in this area, the individual must be able to:

- Demonstrate proper use of abrasive products for a given task

LEARNING TASKS

1. Describe abrasive products

2. Use abrasive products for a given task

CONTENT

- Types
 - Coated
 - Powdered
 - Steel wool
 - Wet and dry abrasive pads

- Proper use
- Safe use

Line (GAC): B USE TOOLS AND EQUIPMENT

Competency: B3 Use power and pneumatic tools

Objectives

To be competent in this area, the individual must be able to:

- Demonstrate proper use, set up and adjustment of power, and pneumatic tools appropriate for a given task
- Inspect and maintain power and pneumatic tools according to manufacturer’s specifications

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <p>1. Describe power and pneumatic tools used in the Painting and Decorating trade</p> | <ul style="list-style-type: none"> • Refer to tool list in Section 5: Training Provider Standards • Types <ul style="list-style-type: none"> ○ Pneumatic ○ Gas/diesel-powered ○ Electrical/cordless • Uses • Terminology |
| <p>2. Demonstrate proper use, set up and adjustment of power and pneumatic tools</p> | <ul style="list-style-type: none"> • Proper use • Procedures/operations • Set-up • Safe use • Adjustment |
| <p>3. Inspect and maintain power tools according to manufacturer’s specifications</p> | <ul style="list-style-type: none"> • Inspection • Maintenance • Storage • Care and maintenance |

Line (GAC): **B** **USE TOOLS AND EQUIPMENT**
Competency: **B4** **Use access equipment**

Objectives

To be competent in this area, the individual must be able to:

- Use ladders and elevated platforms for a given task
- Use access equipment for a given task
- Maintain scaffolds and ladders

LEARNING TASKS

1. Describe ladders, scaffolding, and elevated platforms

CONTENT

- Types
 - Scaffolds
 - Mechanical
 - Ground-based
 - Rolling
 - Stationary
 - Ladder jack
 - Aerial work platforms
 - Aluminum and wooden planks
 - Extension ladders
 - Swing stages
 - Step ladders
 - Boatswain chair/harness
 - Application
 - Components
 - Stirrups
 - Planks
 - Outriggers
 - Cross braces
 - Safety
 - Hazard recognition
 - Fall arrest, restraint, and prevention
 - OHS, site-specific
 - Competency levels for inspection and erection
 - Maintain three-point contact
-
- Selection
 - Site hazards
 - Inspect for defects
 - Rusting
 - Split planks
 - Broken rungs

2. Set up, move and level ladders and scaffolding

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <ul style="list-style-type: none"> 3. Set up an elevated platform
 4. Describe powered elevated work platforms
 5. Maintain scaffolding and ladders | <ul style="list-style-type: none"> • Set up, layout, and levelling • Restrictions <ul style="list-style-type: none"> ○ Height ○ No-step zones ○ Load limitations ○ No opaque coatings • Securing • Moving ladders • Competency levels for inspection and erection
 • Selection • Site hazards • Set up, layout, and levelling • Restrictions <ul style="list-style-type: none"> ○ Height ○ No-step zones ○ Load limitations ○ No painting of ladders • Securing
 • Aerial lifts <ul style="list-style-type: none"> ○ Certification requirement ○ Employer responsibility
 • Maintenance • As per manufacturer’s specifications • Storage |
|--|--|

Line (GAC): **B** **USE TOOLS AND EQUIPMENT**
Competency: **B5** **Use hoisting and lifting equipment**

Objectives

To be competent in this area, the individual must be able to:

- Describe hoisting and lifting equipment

LEARNING TASKS

1. Describe hoisting and lifting equipment

CONTENT

- Types
 - Straps
 - Slings
 - Chains
 - Shackles
- Uses
- Limitations and capacities
- Government regulations
- Safety

Line (GAC): C ORGANIZE WORK

Competency: C1 Use mathematics

Objectives

To be competent in this area, the individual must be able to:

- Perform basic mathematical calculations, including addition, subtraction, multiplication and division, on whole numbers, decimals, and fractions

LEARNING TASKS

1. Use fractions to solve problems

2. Use decimal fractions to solve problems

3. Solve problems of ratio and proportion

4. Convert between metric and imperial measurements

CONTENT

- Add, subtract, multiply, and divide
- Higher term expression
- Simplify fractions

- Add, subtract, multiply, and divide
- Conversion between decimals and fractions
- Decimal notation

- Ratio
 - Equivalent
- Unknown quantities

- Conversion
 - Feet, inches/metres, millimetres
 - Pounds, tons/kilograms, tonnes
- Conversion tables

Line (GAC): C **ORGANIZE WORK**
Competency: C3 **Communicate with others**

Objectives

To be competent in this area, the individual must be able to:

- Describe methods of communication
- Use appropriate communication methods for completing a given task

LEARNING TASKS

1. Describe methods of communication

2. Demonstrate proper use of electronic communication media

3. Recognize signage

4. Use appropriate communication methods for completing a given task

CONTENT

- Listening
- Verbal
- Written
- Hand signals
- Interpersonal skills
- Trade terminology

- Cell phones
 - Safety, emergency purposes
 - Company/site policy, restricted use
- Two-way radios
- Computers
- Etiquette

- Overhead work
- Tapes
 - Yellow
 - Red

- Other trades
- Co-workers
- Customers
- Safety authorities
- Suppliers and manufacturers
- Apprentices (mentoring)
- General respect for others
- Barriers to effective communication
 - Body language
 - Tone of voice
 - Facial expression
 - Accent/language differences
 - Site noise
- PPE

Line (GAC): C ORGANIZE WORK

Competency: C4 Handle materials

Objectives

To be competent in this area, the individual must be able to:

- Describe considerations and responsibilities involved when handling, ordering, and coordinating materials.
- Handle materials according to manufacturer’s specifications

LEARNING TASKS

CONTENT

- | | |
|---|---|
| <p>1. Describe consideration and responsibilities when handling, ordering, and coordinating materials</p> | <ul style="list-style-type: none"> • Safety/OHS regulations • Storage • Scheduling • Transportation • Method of transportation • Reference to TDG • LEED (Leadership in Energy and Environmental Design) • Labelling • Worksite specific • Disposal • Recycling • Identification of materials |
| <p>2. Demonstrate proper procedures for lifting heavy materials</p> | <ul style="list-style-type: none"> • Manual <ul style="list-style-type: none"> ○ Ergonomics • Mechanical lifting |
| <p>3. Handle materials on site</p> | <ul style="list-style-type: none"> • According to job requirements/policies • Safety procedures • Shipping and storage considerations • Quality control/assurance issues |

Line (GAC):	D	PREPARE SURFACES
Competency:	D1	Prepare and repair drywall and plaster surfaces

Objectives

To be competent in this area, the individual must be able to:

- Identify drywall and plaster surface imperfections
- Prepare drywall and plaster surfaces
- Repair drywall and plaster surfaces

LEARNING TASKS

CONTENT

1. Describe surface deficiencies/imperfections	<ul style="list-style-type: none"> • Causes • Excessive moisture • Efflorescence • Improper taping, filling, and/or sanding, and insufficient cure of plaster/masonry • Types <ul style="list-style-type: none"> ○ Holes ○ Cracks ○ Dents ○ Improper taping ○ Beading ○ Nail and screw pops ○ Contaminants • Damage from moisture, mould, and mildew • Hotspots (plaster) • Neutralizing
2. Clean surfaces	<ul style="list-style-type: none"> • Resulting consequences of unclean surfaces • Selection of cleaning equipment • Cleansing procedures <ul style="list-style-type: none"> ○ Sweeping drywall ○ Rinse/wipe surfaces
3. Sand surfaces	<ul style="list-style-type: none"> • Tools and equipment • Sanding sequence • Sanding practices • Direction • Pressure and feathering
4. Describe drywall and plaster repair materials and methods	<ul style="list-style-type: none"> • Types of compounds <ul style="list-style-type: none"> ○ All-purpose

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <p>5. Apply drywall and plaster repair techniques</p> | <ul style="list-style-type: none"> ○ Taping filler ○ Topping filler ○ Fast-set filler ● Characteristics of filling compounds <ul style="list-style-type: none"> ○ Thixotropy ○ Open time ○ Workability ○ Flexibility ● Types of tape <ul style="list-style-type: none"> ○ Fibre ○ Paper (perforated and non-perforated) ● Taping methods <ul style="list-style-type: none"> ○ Manual ○ Machine ○ Dry tape ○ Wet tape ● Types of corner bead <ul style="list-style-type: none"> ○ Fibre ○ Metal ○ Plastic ○ Paper ● Setting time and recoat time of various compounds ● Waste disposal ● Plaster of Paris ● Metal lath and cloth (mesh) |
| <p>6. Apply drywall and plaster finishing techniques</p> | <ul style="list-style-type: none"> ● Tools/equipment <ul style="list-style-type: none"> ○ Hawk ○ Trowels ○ Broad knives ○ Reference to other equipment (see Section 5: Training Provider Standards) ● Mixing compounds to required consistency ● Sanding between coats ● Applying bleach and mildewcide ● Filling cracks, holes, and dents |

LEARNING TASKS

7. Describe the limitations of surface preparation

CONTENT

- Setting and recoating times for various compounds
 - Spreading compound uniformly
 - Assessing drywall surface prior to mudding
 - Recognizing levels of drywall mudding
 - Rough coats
 - Final coats
 - Temperature and humidity considerations required for finishing
-
- Access
 - Environmental considerations
 - Possible damage to property
 - Safety precautions

Achievement Criteria

Performance The learner will repair defects in a drywall surface

Conditions The learner will be given:

- Materials and equipment
- Instructions

Criteria The learner will score 70% on a rating sheet that reflects the following criteria:

- Proper procedures
- Repair quality

Line (GAC): **D PREPARE SURFACES**
Competency: **D2 Prepare wood surfaces**

Objectives

To be competent in this area, the individual must be able to:

- Describe surface preparation techniques for wood surfaces
- Identify procedures required to prepare a given wood surface
- Apply procedures to repair given wood surfaces

LEARNING TASKS

CONTENT

- | | |
|--|---|
| 1. Describe the causes of surface imperfection | <ul style="list-style-type: none"> • Causes <ul style="list-style-type: none"> ○ Sun ○ Moisture ○ Natural oils and resins ○ Biological and chemical contamination ○ Staining |
| 2. Describe limitations of surface preparation | <ul style="list-style-type: none"> • Access • Environmental considerations • Possible damage to property • Safety precautions |
| 3. Describe the different types of chemical treatment and their applications | <ul style="list-style-type: none"> • Purpose • Applications • Types <ul style="list-style-type: none"> ○ Bleaches ○ Strippers ○ Solvents ○ Conditioners ○ Alkalis |
| 4. Apply chemical treatment to a given surface | <ul style="list-style-type: none"> • Safety precautions <ul style="list-style-type: none"> ○ PPE ○ Public • Solvent cleaning • Alkali cleaning • Environmental concerns • Mixing procedures and ratios • Application methods • Application tools <ul style="list-style-type: none"> ○ Brushes |

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <p>5. Clean surfaces</p> | <ul style="list-style-type: none"> ○ Rollers ○ Sprays ● Ventilation requirements ● Post-application rinsing and neutralizing of the surface ● Waste disposal and cleanup |
| <p>6. Scrape surfaces</p> | <ul style="list-style-type: none"> ● Resulting consequences of unclean surfaces ● Selection of cleaning equipment ● Cleaning procedures <ul style="list-style-type: none"> ○ Washing ○ Rinse/wipe surfaces ● Pressure washing issues |
| <p>7. Describe how to sand wood surfaces</p> | <ul style="list-style-type: none"> ● Safety/hazards ● Lead ● Mould ● Contaminants ● Types of finish to be applied ● Types of scrapers and maintenance tools <ul style="list-style-type: none"> ○ Paint scraper ○ Combination ○ Pull scraper ○ Wire brush ○ Files ● Heat gun and scraper |
| <p>8. Sand surfaces</p> | <ul style="list-style-type: none"> ● Tools and equipment <ul style="list-style-type: none"> ○ Manual ○ Power ● Abrasives <ul style="list-style-type: none"> ○ Grit type ○ Grit size ○ Backing material ● Technique ● Required smoothness |
| <p>8. Sand surfaces</p> | <ul style="list-style-type: none"> ● Sanding sequence ● Sanding practices <ul style="list-style-type: none"> ○ Direction ○ Pressure and feathering |

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <p>9. Describe how to repair minor imperfections in wood surfaces</p> | <ul style="list-style-type: none"> • Minor imperfections and causes <ul style="list-style-type: none"> ○ Damage ○ Blistering ○ Cracking ○ Rust bleeding • Repair procedures • Moisture <ul style="list-style-type: none"> ○ Content ○ Damage |
| <p>10. Apply procedures for repairing minor imperfections in wood surfaces</p> | <ul style="list-style-type: none"> • Identification of minor imperfections • Procedures <ul style="list-style-type: none"> ○ Sanding ○ Spot priming surfaces ○ Sealing knots ○ Filling imperfections ○ Feathering imperfections by sanding |
| <p>11. Describe how to seal wood surfaces</p> | <ul style="list-style-type: none"> • Types of sealers <ul style="list-style-type: none"> ○ Shellac ○ Varnishes ○ Latex ○ Alcohol and lacquer-based sanding sealers ○ Water-borne polyurethane ○ Primary sealers ○ Undercoats |
| <p>12. Apply wood fillers</p> | <ul style="list-style-type: none"> • Types of wood fillers • Application tools • Application sequence • Filling holes and imperfections • Compatibility of filler with stains and finishes |
| <p>13. Apply procedures or treatment to prepare a substrate</p> | <ul style="list-style-type: none"> • According to job specifications |

Line (GAC): **D PREPARE SURFACES**
Competency: **D3 Treat and repair concrete and masonry surfaces**

Objectives

To be competent in this area, the individual must be able to:

- Apply surface preparation techniques for concrete and masonry
- Treat new concrete and masonry surfaces
- Repair concrete and masonry surfaces

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <p>1. Describe and identify surface deficiencies</p> | <ul style="list-style-type: none"> • Causes <ul style="list-style-type: none"> ○ Contamination ○ Excessive moisture ○ Efflorescence ○ Improperly cured concrete, masonry ○ Spalling • Laitance |
| <p>2. Describe how to treat new concrete and masonry</p> | <ul style="list-style-type: none"> • Safety • Purpose of etching • Etching materials • Purpose of neutralizing • Neutralizing materials • Hazards associated with etching materials • Form release agent contamination • Surface preparation standards |
| <p>3. Apply techniques used to treat new concrete</p> | <ul style="list-style-type: none"> • Tools • Surface preparation prior to treatment of concrete • Mixing and handling neutralizing and etching materials • Removing contaminants, neutralizing, and etching residues |
| <p>4. Describe the different types of chemical treatment and their applications</p> | <ul style="list-style-type: none"> • Safety, PPE • Purpose • Applications • Types <ul style="list-style-type: none"> ○ Solvents ○ Acids ○ Detergents ○ Cleaners |

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <p>5. Apply chemical treatment to a given surface</p> | <ul style="list-style-type: none"> ○ Degreasers ○ Emulsifiers ○ Alkalis <ul style="list-style-type: none"> ● Safety precautions ● Chemical cleaning ● Environmental concerns ● Mixing procedures and ratios ● Application methods ● Application tools <ul style="list-style-type: none"> ○ Brushes ○ Rags ○ Mops ○ Squeegees ● Ventilation requirements ● Post-application and rinsing and neutralizing of the surface |
| <p>6. Describe the different types of mechanical treatment and their applications</p> | <ul style="list-style-type: none"> ● Safety, PPE ● Reference abrasive blasting ● Acquiring/retaining surface profile ● Purpose ● Types of mechanical treatment <ul style="list-style-type: none"> ○ Scarifiers ○ Sanders ○ Grinders ○ Abraders |
| <p>7. Scrape surfaces</p> | <ul style="list-style-type: none"> ● Types of scrapers ● Types of substrate <ul style="list-style-type: none"> ○ Cautionary measures ● Hazards ● Removal of loose and peeling paint and coatings ● Removal of gross contaminants |
| <p>8. Describe how to sand surfaces</p> | <ul style="list-style-type: none"> ● Types of substrate to be sanded ● Types of power sanders ● Types of sanding tools and equipment ● Types of finish to be applied ● Required smoothness |

LEARNING TASKS

CONTENT

- | | |
|--|---|
| 9. Sand surfaces | <ul style="list-style-type: none"> • Sanding sequence • Sanding practices |
| 10. Describe how to repair concrete and masonry surfaces | <ul style="list-style-type: none"> • Imperfections to be repaired • Materials used to repair concrete • Filling cracks, gaps, and honeycombs • Repair tools |
| 11. Apply procedure or treatment to prepare a substrate | <ul style="list-style-type: none"> • According to job specifications |

Line (GAC): **D PREPARE SURFACES**
Competency: **D4 Prepare and repair metal surfaces**

To be competent in this area, the individual must be able to:

- Describe the causes of surface deficiencies
- Identify surface deficiencies
- Describe metal surface preparation standards
- Prepare metal surfaces for treatment
- Treat metal surfaces
- Repair metal surfaces

LEARNING TASKS

CONTENT

- | | |
|---|--|
| 1. Describe the causes of surface deficiencies | <ul style="list-style-type: none"> • Causes <ul style="list-style-type: none"> ○ Excessive moisture ○ Basic corrosion ○ Contaminants ○ Mill scale |
| 2. Identify surface deficiencies | <ul style="list-style-type: none"> • Types • Specific deficiencies <ul style="list-style-type: none"> ○ Mill scale on steel ○ Types of corrosion ○ Problematic surfaces <ul style="list-style-type: none"> ▪ Galvanized metals |
| 3. Identify substrate and standards for application of coatings to metal substrates | <ul style="list-style-type: none"> • Types of substrates <ul style="list-style-type: none"> ○ Ferrous and non-ferrous • Manufacturer’s recommendations • Specifications • Standards <ul style="list-style-type: none"> ○ AMPP ○ NACE ○ SSPC ○ ASTM ○ ISO |
| 4. Describe limitations of surface preparations | <ul style="list-style-type: none"> • Access • Environmental considerations • Possible damage to substrate • Safety precautions |
| 5. Clean surfaces | <ul style="list-style-type: none"> • Safety |

LEARNING TASKS

CONTENT

- | | |
|---|---|
| <p>6. Describe how to scrape surfaces</p> | <ul style="list-style-type: none"> • Chemical cleaning • Resulting consequences of unclean surfaces • Selection of cleaning equipment • Cleaning procedures <ul style="list-style-type: none"> ○ Rinse/wipe surfaces ○ Pressure washer |
| <p>7. Scrape surfaces</p> | <ul style="list-style-type: none"> • Types of scrapers <ul style="list-style-type: none"> ○ Paint scraper ○ Combination ○ Pull scraper ○ Offset scraper ○ Powered scrapers • Types of substrate • Types of finish to be applied |
| <p>8. Describe how to sand surfaces</p> | <ul style="list-style-type: none"> • Protection of substrate • Removal of loose and peeling paint, coatings, and contaminants • Heat gun |
| <p>9. Describe the different types of chemical treatment and their applications</p> | <ul style="list-style-type: none"> • Types of substrate to be sanded • Types of power sanders • Types of sanding tools and equipment • Abrasive paper <ul style="list-style-type: none"> ○ Grit type ○ Grit size ○ Backing materials • Required smoothness |
| <p>9. Describe the different types of chemical treatment and their applications</p> | <ul style="list-style-type: none"> • Purpose • Applications • Types <ul style="list-style-type: none"> ○ Strippers ○ Solvents ○ Acids ○ Detergents ○ Degreasers ○ Alkalis • Pre-treatment |

LEARNING TASKS

10. Apply chemical treatment to a given surface

11. Describe the different types of mechanical equipment and their applications

12. Apply mechanical treatment to a given surface

13. Describe how to repair metal surfaces

CONTENT

- Safety precautions, PPE
 - Environmental concerns
 - Mixing procedures and ratios
 - Application methods
 - Application tools
 - Brushes
 - Rags
 - Mops
 - Ventilation requirements
 - Pre and post-application rinsing and neutralizing of the surface
-
- Reference abrasive blasting
 - Purpose
 - Types of mechanical equipment
 - Sanders
 - Grinders
 - Scarifiers
 - Abraders
 - Steel wool
 - Wire brushes
 - Synthetic brushes
 - Needle gun
 - Limitations
 - Provincial and other applicable regulations
-
- Selecting mechanical treatment equipment
 - Industry standards for mechanical treatment of surfaces
 - Conditioning tools
 - Grinding metal surfaces
-
- Repair materials and equipment
 - Methods of repair
 - Applicable standards

Line (GAC): **D PREPARE SURFACES**
Competency: **D6 Perform hydro cleaning**

Objectives

To be competent in this area, the individual must be able to:

- Perform pressure washing
- Maintain pressure washing equipment according to manufacturer’s specifications

LEARNING TASKS

1. Describe pressure washing

CONTENT

- Purpose
- Categories and classifications
- Pressure and volume
- Preparation of equipment and work area
- Applicable standards
- Safety, PPE
- Access
- Environmental considerations
- Possible property damage
- Containment
- Water recovery, treatment, and disposal
- Accessories

2. Perform pressure washing

- Techniques
- Nozzle selection
- Equipment set-up
- Consideration of substrate

3. Maintain pressure washing equipment according to manufacturer’s specifications

- Fueling
- Storage
- Troubleshooting

Achievement Criteria

Performance The learner will pressure wash a given area.

Conditions The learner will be given:

- Equipment
- PPE
- Instructions
- Checklist

Criteria The learner will score 70% on a rating sheet that reflects the following criteria:

- Proper techniques
- Safety protocols

Line (GAC): E **APPLY PAINT AND COATINGS**
Competency: E1 **Apply paint**

Objectives

To be competent in this area, the individual must be able to:

- Describe paint components and their associated properties
- Prepare paint and coatings
- Use brushes to apply paint and coatings
- Use rollers to apply paint and coatings

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <p>1. Describe paint/coating composition</p> | <ul style="list-style-type: none"> • Components • Paint properties • Application |
| <p>2. Describe paint pigments, vehicles, and additives</p> | <ul style="list-style-type: none"> • Reference Material section • Pigments <ul style="list-style-type: none"> ○ Coloured ○ White ○ Specialty • Vehicles <ul style="list-style-type: none"> ○ Volatile <ul style="list-style-type: none"> ▪ Solvents ▪ Thinners ○ Non-volatile <ul style="list-style-type: none"> ▪ Oils ▪ Resins • Additives |
| <p>3. Describe pigments and their associated properties</p> | <ul style="list-style-type: none"> • Types <ul style="list-style-type: none"> ○ White <ul style="list-style-type: none"> ▪ Lead ▪ Titanium dioxide ○ Coloured <ul style="list-style-type: none"> ▪ Chemical ▪ Natural ○ Specialty <ul style="list-style-type: none"> ▪ Aluminum ▪ Fire-retardant ▪ Zinc ○ Extenders <ul style="list-style-type: none"> ▪ Whiting |

LEARNING TASKS

CONTENT

- Kaolin
 - Properties
 - Functions

- 4. Describe vehicles and their associated properties
 - Types
 - Non-volatile
 - Resin/binder
 - Natural and synthetic
 - Oils
 - Drying, non-drying
 - Volatile
 - Solvents
 - Thinners
 - Uses
 - Properties
 - Functions

- 5. Describe additives and their associated properties
 - Types
 - Uses
 - Properties
 - Functions

- 6. Describe the components of a Product Data Sheet
 - Components
 - Function
 - Use
 - Parameters
 - Thinning
 - Mixing
 - Dry times
 - Induction time
 - Safety, PPE

- 7. Describe types and preparation of architectural paint and high performance coatings
 - Types of architectural paint and coatings
 - Water-borne
 - Acrylic and alkyds
 - Types of high performance coatings
 - Intumescent
 - Epoxies
 - Urethanes
 - Zinc-rich
 - Moisture-cured

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <p>8. Strain, mix, and thin coatings according to specifications including ratios and induction times</p> | <ul style="list-style-type: none"> • Application considerations • Drying/curing time <ul style="list-style-type: none"> ○ Specifications ○ Substrates • Environmental conditions <ul style="list-style-type: none"> ○ Humidity ○ Ambient temperature • Colour matching and tinting |
| <p>9. Apply paint/coatings with brushes</p> | <ul style="list-style-type: none"> • As per job requirements and manufacturer’s specifications <ul style="list-style-type: none"> ○ Ratios ○ Weight ○ Volume • Types and sizes of brushes (refer to appendix) • Types of paint that can be brushed on • Brushing techniques <ul style="list-style-type: none"> ○ Lay off and feathering paint ○ Cut in accurately • Product/technical data sheet • Other hand application tools • Cleaning and maintaining |
| <p>10. Apply paint/coatings with rollers</p> | <ul style="list-style-type: none"> • Types and sizes of rollers (refer to appendix) • Types of paints that can be rolled on • Nap/pile of sleeve • Conditioning roller sleeves • Roller techniques • Maintaining a wet edge • Cleaning and maintaining |
| <p>11. Describe spray systems</p> | <ul style="list-style-type: none"> • Refer to E4-E6 (air spray, airless spray and specialty spray) |
| <p>12. Describe how to prime and seal surfaces</p> | <ul style="list-style-type: none"> • Purpose • Types <ul style="list-style-type: none"> ○ Water-borne ○ Solvent-based ○ Specialty primers |

LEARNING TASKS

CONTENT

13. Prime and seal surfaces

- Stain blocker
- Block filler
- Epoxy-based
- Basic priming
 - New substrate
 - Previously finished surface
- Selection of primer for new substrate and previously finished surface
- Identification of moisture content before priming

Achievement Criteria

Performance The learner will apply coating to a surface.

Conditions The learner will be given:

- Instructions
- Equipment
- Tools

Criteria The learner will score 70% on a rating sheet that reflects the following criteria:

- Accuracy
- Sequence and procedures
- Housekeeping
- Tool use
- Overall finish

Line (GAC):	E	APPLY PAINT AND COATINGS
Competency:	E3	Identify and correct paint/coating failures

Objectives

To be competent in this area, the individual must be able to:

- Identify paint/coating failures
- Correct paint/coating failures

LEARNING TASKS

1. Describe the causes of paint/coating defects and failures

2. Determine remedies for given paint/coating failures

3. Correct paint/coating failures

CONTENT

- Degree of surface degradation
- Types
 - Alligatoring
 - Orange peeling
 - Flaking
 - Bleeding
 - Other paint film defects
 - Rusting
 - Peeling and cracking of paint
- Causes of coating defects and failures
 - Poor surface preparation
 - Unsuitable coating
 - Environmental influences
 - Improper application
 - Surface contamination
 - Corrosion of substrate
- Determine cause of defects
- Remedies
 - According to failures
 - Safety, PPE

Line (GAC): E APPLY PAINT AND COATINGS

Competency: E5 Use airless spray equipment

Objectives

To be competent in this area, the individual must be able to:

- Apply a spray finish using airless spray equipment according to project specifications
- Maintain airless spray equipment
- Troubleshoot airless spray equipment

LEARNING TASKS

1. Describe airless spray equipment

2. Select airless spray equipment based on the surface and coating requirements

CONTENT

- Advantages and disadvantages of airless spray equipment compared to air spray equipment
 - Production
 - Finish
 - Transfer efficiency
- Finish required
- Transfer efficiency
- Power sources
 - Air
 - Electrical
 - Gas
- Basic parts
 - Paint lines
 - Couplings and fittings
 - Gun
 - Safety features
 - Trigger safety
 - Tip guard
 - Non-static lines
 - Equipment ground
 - Spray tips
 - Accessories
- Safety, PPE
 - Injection
- Environmental considerations
- Hazards

- Coating to be sprayed
- Substrate to be painted
- Pump ratings
 - Viscosity rating

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <p>3. Demonstrate airless spray technique</p> | <ul style="list-style-type: none"> ○ Flow rate ○ Ratio ○ Tip selection <ul style="list-style-type: none"> ● Motion <ul style="list-style-type: none"> ○ Speed ○ Angle ● Distance from surface ● Overlap distance ● Triggering |
| <p>4. Describe airless spray finishing procedures</p> | <ul style="list-style-type: none"> ● Set-up and shutdown of airless spray systems ● Precautions and techniques |
| <p>5. Apply a spray finish using airless equipment according to project specifications</p> | <ul style="list-style-type: none"> ● As per project specifications |
| <p>6. Maintain airless spray equipment</p> | <ul style="list-style-type: none"> ● Flushing/cleaning the system ● Cleaning equipment filters ● Proper storage of equipment ● Repacking of airless pumps |
| <p>7. Troubleshoot airless spray equipment</p> | <ul style="list-style-type: none"> ● No/insufficient pressure ● Power source ● Faulty spray pattern ● Incorrect filters ● Repacking of airless pumps |

Achievement Criteria

Performance The learner will spray a surface according to specifications.

Conditions The learner will be given:

- Tools
- Materials
- Equipment
- Instructions

Criteria The learner will score 70% on a rating sheet that reflects the following criteria:

- Technique
- Safety
- Sequence/procedures
- Housekeeping
- Tool use
- Overall finish

Line (GAC):	E	APPLY PAINT AND COATINGS
Competency:	E9	Apply caulking

Objectives

To be competent in this area, the individual must be able to:

- Describe caulking
- Apply, finish, and remove caulking

LEARNING TASKS

1. Describe caulking

CONTENT

- Purpose/application
 - Filling cracks and joints in trim
 - Sealing around window and doors
 - Protection from moisture
 - Expansion and contraction
 - Reduce heat loss
 - Cosmetic, esthetic
 - Design flaws
- Types of caulking
 - Epoxy
 - Latex
 - Silicone
 - Polyurethane (paintable)
- Properties
 - Cohesion
 - Adhesion
 - Shrinkage
 - Elongation
 - Flexibility
 - Curing time
 - Life expectancy
 - Consistency and texture
 - Permeability
 - Repellency
 - Breathability
- Additives
 - Biocides
 - Fungicides
- Tools
 - Caulking guns
 - Air
 - Electric
 - Manual
 - Squeeze tubes

LEARNING TASKS

2. Apply, finish, and remove caulking

CONTENT

- Drying time required for various caulking
- Reasons for caulking breakdown
 - Moisture and cure time
- Tools
 - Application
 - Removal
 - Finishing
- Procedure
- Safety, PPE
- Environmental considerations
- According to job specifications

Line (GAC): G APPLY FINISHES

Competency: G3 Apply graphics

Objectives

To be competent in this area, the individual must be able to:

- Describe layout methods for graphics
- Apply a graphic according to specifications

LEARNING TASKS

1. Describe layout methods for graphics

2. Describe layout and application tools and equipment

3. Apply a graphic according to specifications

CONTENT

- Geometric calculations and measurement
- Square grid
- Projector
- Templates
- Pounce wheel
- Stencils
- Design on surface
- Positioning on substrate
- Transfer of design
- Modifications
- Marking equipment
- Considerations
 - Protection of surrounding areas
 - Sequence of colour application
 - Coats required
- Tape measures
- Compass
- Protractor
- Scale ruler
- T-squares
- French curves
- Straight edges
- Levels
- Lasers
- Basic brushes and rollers
- Spray equipment
- Mahl stick
- Access
- Safety, PPE

LEARNING TASKS**CONTENT**

- Environmental considerations

Achievement Criteria

Performance The learner will lay out and apply paint to a graphic based on given specifications.

Conditions The learner will be given:

- Tools
- Materials
- Equipment
- Instructions

Criteria The learner will score 70% on a rating sheet that reflects the following criteria:

- Accuracy
- Procedure/sequence
- Housekeeping
- Overall finish

Line (GAC): H APPLY COLOUR THEORY

Competency: H1 Use colour theory

Objectives

To be competent in this area, the individual must be able to:

- Describe colour theory
- Create colours

LEARNING TASKS

1. Describe colour theory

CONTENT

- The source of colour
- Colour spectrum
- Colour schemes
 - Monochromatic
 - Complementary
 - Triadic
- Additive and subtractive colour theory
- Absorption and reflection of light
- Colour systems
 - Munsell
 - Ostwald
 - Pantone
 - RAL
 - ISO
 - Natural Colour System

2. Describe the colour wheel

- Primary colours
- Secondary colours
- Intermediate colours

3. Describe colour characteristics and how they relate to the painting trade

- Hue
- Value
- Chroma
- Tint
- Tone
- Shade
- Muting

4. Describe types and uses of bases, colourants, tints, and dyes

- Bases
 - Clear
 - White
 - Deep

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <p>5. Describe characteristics of pigments used in colourants</p> | <ul style="list-style-type: none"> • Opacity • Mixing light colours • Mixing bright or dark colours • Universal • Colours in Japan • Colours in oil • Dry powder • Dyes |
| <p>6. Create colours</p> | <ul style="list-style-type: none"> • Purity • Strength • Durability • Restrictions of use • Compatibility • Acid and alkali resistance • Light fastness |
| <p>7. Describe equipment and tools used to mix and match colours</p> | <ul style="list-style-type: none"> • Light fastness • Test strength and purity of pigments <ul style="list-style-type: none"> ○ Draw down ○ Mute colours • Practice developing colour mixing and matching skills
<ul style="list-style-type: none"> • Measurement/ratios <ul style="list-style-type: none"> ○ Carousels ○ Tint machines • Paint mixers • Strainers • Test panels • Window viewing cards • Record keeping • Light box • Fan deck/paint chip/colour sample • Spectrophotometer |

Achievement Criteria

Performance	The learner will perform draw downs, colour matching, and colour muting.
Conditions	The learner will be given: <ul style="list-style-type: none">• Tools• Materials• Instructions
Criteria	The learner will score 70% on a rating sheet that reflects the following criteria: <ul style="list-style-type: none">• Matching accuracy• Cleanliness• Sequence/Procedures

Line (GAC): **H APPLY COLOUR THEORY**
Competency: **H2 Mix and match colours**

Objectives

To be competent in this area, the individual must be able to:

- Match colours using bases and colourants

LEARNING TASKS

1. Describe how to match colours

2. Describe the equipment and tools used to match colours

3. Match colours

CONTENT

- Colour matching skills
- Colour harmony
- Procedures
 - Ensuring suitable lighting
 - Evaluating the colour to be matched
 - Triangulation
 - Dry match
 - Approval of sample

- Measurement
- Paint mixers
- Strainers
- Test panels
- Viewing cards
- Record keeping
- Light box
- Heat dryers
- Fan decks/colour samples

- Matching colours to project specifications

Achievement Criteria

Performance The learner will match colours to project specifications.

Conditions The learner will be given:

- Tools
- Materials
- Equipment
- Instructions

Criteria The learner will be evaluated on

- Matching accuracy
- Sequence/Procedures
- Housekeeping

Level 2

Painter and Decorator

Line (GAC): B USE TOOLS AND EQUIPMENT**Competency: B4 Use access equipment****Objectives**

To be competent in this area, the individual must be able to:

- Describe suspended staging

LEARNING TASKS

1. Describe suspended staging

2. Describe rigging for suspended staging

CONTENT

- Swing stage
- Dual/single point staging
- Boatswain chair

- Parapet clamps
- Thrust out beams
- Davit arms
- Roof car
- Beam clamps
- Trolleys
- Weight calculations

Line (GAC): **B USE TOOLS AND EQUIPMENT**
Competency: **B5 Use hoisting and lifting equipment**

Objectives

To be competent in this area, the individual must be able to:

- Use rigging and hoisting equipment for a given task
- Use lifting equipment for a given task
- Maintain hoisting and lifting equipment as per manufacturer’s specifications

LEARNING TASKS

CONTENT

<p>1. Describe rigging hardware components</p>	<ul style="list-style-type: none"> • Hooks <ul style="list-style-type: none"> ○ Sorting hooks ○ Eye hooks • Headache balls • Swivels • Blocks • Sheaves • Shackles • Clips • Thimbles • Eyebolts • Load binders • Spreader bars • Equalizer bars and plates • Turnbuckles • Drums • Chains • Softeners • Sway braces • Spines/stiffener • Cables/wire rope • Plate grip
<p>2. Calculate weight for a given rigging and hoisting task</p>	<ul style="list-style-type: none"> • Calculation of weight • Selection of equipment • Mechanical advantage
<p>3. Use rigging and hoisting equipment for a given task</p>	<ul style="list-style-type: none"> • Selection of lifting location or point • Training requirements • Knots

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <ul style="list-style-type: none"> 4. Describe lifting equipment
 5. Use lifting equipment according to job requirements
 6. Maintain hoisting and lifting equipment as per manufacturer’s specifications | <ul style="list-style-type: none"> • Anchorage and hold back • Safety • Operating procedures • Communication and hand signals • Securing of loads • Inspection
 • Training requirements • Mobile cranes • Forklifts
 • As per job requirements
 • Maintenance • Storage • Safety • Basic operating procedures |
|--|--|

Achievement Criteria

- | | |
|--|---|
| <p>Performance</p> <p>Conditions</p> <p>Criteria</p> | <p>The learner will calculate weights and rig for a given scenario.</p> <p>The learner will be given:</p> <ul style="list-style-type: none"> • Scenario • Materials • Equipment <p>The learner will score 70% or better on a rating sheet that reflects the following criteria:</p> <ul style="list-style-type: none"> • Accuracy of calculation • Accuracy of knots • Safety |
|--|---|

Line (GAC): C ORGANIZE WORK**Competency: C1 Use mathematics****Objectives**

To be competent in this area, the individual must be able to:

- Apply mathematical principles to solve problems including calculating area, volume, proportion, and angles

LEARNING TASKS

1. Solve geometric problems

CONTENT

- Area
- Perimeter
- Volume
- Angles
- Arc
- Radius and diameter
- Formulas
 - Square and rectangles
 - Triangles
 - Parallelogram
 - Trapezoid
 - Circle
 - Sector
 - Segment
 - Cylinder

Line (GAC): **D PREPARE SURFACES**
Competency: **D4 Prepare and repair metal surfaces**

Objectives

To be competent in this area, the individual must be able to:

- Describe specific metal substrate deficiencies
- Perform quality control for surface preparation on metal substrates

LEARNING TASKS

CONTENT

- | | |
|--|--|
| 1. Describe corrosion | <ul style="list-style-type: none"> • Types • Corrosion theory |
| 2. Describe specific metal substrate deficiencies | <ul style="list-style-type: none"> • Types • Specific deficiencies <ul style="list-style-type: none"> ○ Mill scale ○ Corrosion ○ Surface contaminants ○ Preparation of problematic surfaces such as galvanized metals |
| 3. Identify standards for application of coatings to metal substrates | <ul style="list-style-type: none"> • Standards <ul style="list-style-type: none"> ○ NACE ○ SSPC ○ AMPP ○ ASTM ○ ISO ○ Job Standards (customer specifications) |
| 4. Perform quality control for surface preparation of metal substrates | <ul style="list-style-type: none"> • Procedures • Protocols • Testing <ul style="list-style-type: none"> ○ Salt/chloride testing ○ Ambient conditions ○ Profiles (replica tape) ○ Initial condition of substrate (VIS 1 and VIS 2) ○ Degree of cleanliness • QA/QC program • Federal and Provincial and other applicable regulations and guidelines |

Achievement Criteria

Performance	The learner will perform quality control/assurance for: <ul style="list-style-type: none">• Ambient conditions• Profiles• Initial condition of substrate (VIS 1 and VIS 2)• Degree of cleanliness
Conditions	The learner will be given: <ul style="list-style-type: none">• Instructions• Inspection tools• Standards
Criteria	The learner will be evaluated on: <ul style="list-style-type: none">• Substrate Adherence to standards• Proper use of tools• Proper documentation of results

Line (GAC): **D PREPARE SURFACES**
Competency: **D5 Perform abrasive blasting**

Objectives

To be competent in this area, the individual must be able to:

- Select abrasive based on the specification, substrate, equipment being used, and coating to be applied
- Perform abrasive blasting on a given substrate
- Inspect and maintain abrasive blasting equipment as per manufacturer’s specifications

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <p>1. Describe abrasive blasting and applicable standards</p> | <ul style="list-style-type: none"> • Purpose • Types <ul style="list-style-type: none"> ○ Air pressure ○ Centrifugal • Principles • Advantages and disadvantages • AMPP, SSPC, NACE, ISO |
| <p>2. Evaluate initial condition of given substrate</p> | <ul style="list-style-type: none"> • Welds • Slag • Weld splatter • Contaminants • Mould • Integrity of substrate <ul style="list-style-type: none"> ○ Delamination ○ Inclusions ○ Gouges/defects ○ Existing profile ○ Age of concrete (cure) ○ Hardness of substrate |
| <p>3. Describe types and functions of abrasive blasting equipment</p> | <ul style="list-style-type: none"> • Types <ul style="list-style-type: none"> ○ Suction ○ Vacuum ○ Barrel ○ Cabinet ○ Direct pressure ○ Centrifugal wheel abraders • Functions |
| <p>4. Describe air compressors used in abrasive blasting</p> | <ul style="list-style-type: none"> • Types <ul style="list-style-type: none"> ○ Rotary |

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <p>5. Describe components of abrasive blasting equipment</p> | <ul style="list-style-type: none"> ○ Screw ● Set-up ● Maintenance ● Fuel considerations ● Operation <ul style="list-style-type: none"> ○ Start-up ○ Shutdown ● Air quality <ul style="list-style-type: none"> ○ Breathing ○ Operating ● Air pressure ● Air volume |
| <p>6. Describe abrasive blasting media</p> | <ul style="list-style-type: none"> ● Oil and moisture separators ● Air dryer ● Air hoses ● Blasting hoses ● Couplings ● Control valves ● Nozzles <ul style="list-style-type: none"> ○ Straight ○ Angle ○ Venturi ○ Specialty ○ Water ring ○ Water injection ● Remote control valves ● Washers/gaskets ● Air control equipment <ul style="list-style-type: none"> ○ Water traps ○ Cleaners ○ Receivers ○ Filters, ○ Pressure regulators |
| <p>6. Describe abrasive blasting media</p> | <ul style="list-style-type: none"> ● Types ● Anchor pattern ● Breakdown rate ● Abrasive characteristics <ul style="list-style-type: none"> ○ Shape ○ Hardness |

LEARNING TASKS

CONTENT

7. Perform abrasive blasting

- Density
- Size distribution

- Safety
 - PPE
 - Inspection of hose, couplings, whips, and nozzle
 - Hazards
 - Communications
 - Protecting the public and other workers
- Environmental issues
 - Waste management
 - Reference HAZMAT
 - Reference Containment (standards)
- Environmental control methods
 - Heat
 - Dehumidification
 - Ventilation
- Equipment location and set-up
- Blasting techniques/procedures
 - Steel
 - Concrete
 - Wood
- Abrasive consumption
- Machine start-up
- Machine shutdown
- Inspection and testing
 - Testing equipment
 - Hold points
 - Specifications
 - Air quality

8. Maintain abrasive blasting equipment according to manufacturer’s and other applicable specifications

- Manufacturer’s specifications
- Other specifications

Achievement Criteria

Performance	The learner will perform abrasive blasting on a panel.
Conditions	The learner will be given: <ul style="list-style-type: none">• Panel• Equipment• PPE• Specification
Criteria	The learner will score 70% on a rating sheet that reflects the following criteria: <ul style="list-style-type: none">• Adherence to specification• Proper sequence• Safe practices

Line (GAC): **D PREPARE SURFACES**
Competency: **D6 Perform hydro cleaning**

Objectives

To be competent in this area, the individual must be able to:

- Describe hydro blasting
- Describe the procedures involved in hydro blasting

LEARNING TASKS

1. Describe hydro blasting

CONTENT

- Purpose
- Categories and classifications
- Pressure and volume
- Preparation of equipment and work area
- AMPP, NACE, SSPC, and ASTM standards
- Systems
 - High pressure
 - Ultra-high pressure
 - Water-jetting
- Access
- Environmental considerations
- Possible property damage
- Containment
- Water recovery, treatment, and disposal

2. Describe hydro blast equipment

- Pumps
- Gauges
- High pressure hoses
- Lances
- Nozzles
- Dump valves
- Couplings
- Fittings
- Tips
- Injectors
 - Cleaners
 - Rust inhibitors
 - Abrasives
- Accessories

3. Describe the procedures involved in hydro blasting

- Safety
 - PPE
 - Hazards

LEARNING TASKS

CONTENT

- Lead removal
- Time limitations
- Rules and recommended procedures
- Protocols between blast and coating

Line (GAC): **E APPLY PAINT AND COATINGS**
Competency: **E2 Apply industrial coatings and materials**

Objectives

To be competent in this area, the individual must be able to:

- Describe industrial, high performance, and architectural coatings
- Describe special function materials
- Apply industrial coatings and materials to substrates

LEARNING TASKS

1. Describe architectural, high performance, and industrial coatings

2. Describe special function materials

3. Describe application procedures for industrial coatings

4. Select materials based on substrate

5. Apply coating system to substrate

CONTENT

- *Review Level 1: Apply Paint*
- Environmental concerns
- Classes of coatings
- Coating properties
- Film-forming mechanisms
- Curing mechanisms
- Safe handling and application
 - Material-specific hazards
- Safety, PPE
- Product/technical data sheets

- Foams
- Seamless floorings
- Fire retardant coatings
- Heat cured powder coatings
- Texture coatings
- Lining systems
- Emerging technologies/materials
- Fibre-reinforced plastics

- Application sequence
- Quality control
- Required documentation

- Intended use

- As per job requirements

Achievement Criteria

Performance	The learner will apply a coating to a given substrate.
Conditions	The learner will be given: <ul style="list-style-type: none">• Materials• Equipment• Instructions/specifications
Criteria	The learner will score 70% on a rating sheet that reflects the following criteria: <ul style="list-style-type: none">• Accuracy• Sequence and procedures• Overall appearance• Adherence to specification

Line (GAC):	E	APPLY PAINT AND COATINGS
Competency:	E3	Identify and correct paint/coating failures

Objectives

To be competent in this area, the individual must be able to:

- Identify coating failures and their causes
- Describe corrosion control
- Correct coating failures

LEARNING TASKS

1. Describe the causes of coating defects and failures

2. Describe the process of corrosion

3. Describe corrosion control

4. Determine causes and remedies for given coating failures

5. Correct coating failures

CONTENT

- *Reference Level 1*
- Causes of Coating defects and failures
 - Poor surface preparation
 - Unsuitable coating
 - Environmental influences
 - Improper application
 - Surface contamination
 - Corrosion of substrate
- Quality control and assurance
- Definition
- Different forms of anodes and cathodes
- Problems of mill scale
- Electrolytes
- Types
 - General corrosion
 - Galvanic corrosion
 - Pitting corrosion
 - Galvanic scale
- Inhibitive coatings
- Barrier coatings
- Cathodic protection systems

- Determine cause of defects
- Remedies
- Testing/inspection equipment

- According to failures
- Safety, PPE

Line (GAC): **E APPLY PAINT AND COATINGS**
Competency: **E4 Use air spray equipment**

Objectives

To be competent in this area, the individual must be able to:

- Describe air spray
- Describe air spray systems and components
- Apply a spray finish using air spray according to project specifications

LEARNING TASKS

CONTENT

- | | |
|---|--|
| 1. Describe air spray | <ul style="list-style-type: none"> • Atomization • Transfer efficiency • Overspray • Fluid properties • Fluid dynamics • Fluid controls • Safety, PPE • Environmental considerations • Ventilation |
| 2. Describe air spray procedures | <ul style="list-style-type: none"> • Equipment placement • Job planning • Protection of surrounding areas • Set-up and shutdown |
| 3. Describe the components in an air spray system | <ul style="list-style-type: none"> • Spray gun • Fluid and air lines • Containers <ul style="list-style-type: none"> ○ Cups and tanks • Pressure gauges • Filters • Mixing equipment • Air control equipment • Compressors |
| 4. Describe basic types of air spray equipment | <ul style="list-style-type: none"> • Pressure feed • Suction feed • Gravity feed • Conventional (non HVLP) air spray • HVLP air spray |

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <p>5. Describe air spray set up and finishing procedures</p> | <ul style="list-style-type: none"> • LVLV air spray • Tools |
| <p>6. Apply a spray finish using air spray according to project specifications</p> | <ul style="list-style-type: none"> • Set-up and shutdown • Safety precautions • Motion • Distance from surface • Overlap distance • Triggering • Faulty spray patterns • Trouble-shooting equipment problems • Inspection |

Achievement Criteria

- | | |
|--------------------|--|
| <p>Performance</p> | <p>The learner will use air spray equipment to apply material to a given project.</p> |
| <p>Conditions</p> | <p>The learner will be given:</p> <ul style="list-style-type: none"> • Tools • Materials • Equipment • Instructions |
| <p>Criteria</p> | <p>The learner will score 70% on a rating sheet that reflects the following criteria:</p> <ul style="list-style-type: none"> • Technique • Finish • Safety • Sequence/procedures |

Line (GAC): E **APPLY PAINT AND COATINGS**
Competency: E7 **Use thermal spray**

Objectives

To be competent in this area, the individual must be able to:

- Use thermal spray to apply material to a given surface

LEARNING TASKS

1. Describe thermal spray systems

2. Describe the hazards and safety precautions associated with thermal spray equipment

3. Describe thermal spray equipment

4. Describe thermal spray coating materials

5. Describe application of gas flame thermal spray

CONTENT

- Gas flame spray
- Powder thermal spray
- Electric arc spray
- Thermoplastic spray

- Hazards
 - Fire explosion hazards
 - Metal dusts
 - Metal fumes
- Precautions
 - Safety, PPE
 - Worker training
 - Safe work procedures
 - Environmental considerations

- Application method
- Materials
- Tools and equipment (see Section 5: Training Provider Standards)
- Maintenance
- Calibration

- Surface preparation required
- Wire/powder (metalizing)
 - Zinc
 - Aluminum
 - Zinc-aluminum
 - Assorted metals
- Plastics
- Sealers and topcoats

- Application techniques
- Gas-oxygen mix

LEARNING TASKS

6. Describe the application of electric arc

7. Use thermal spray to apply material to a given surface

CONTENT

- Distance from surface
- Speed of wire feed
- Angle of spray
- Gun spray

- Safety
 - Noise
 - UV radiation
 - Dust, fumes, and vapours
 - Heat/ignition source
 - Electrical shock hazards
 - PPE
 - Operator fatigue
 - Zinc fume exposure
- Substrates
 - Steel
 - Concrete
 - Other
- Equipment selection
- Material selection
- Set-up/operation
- Process and work instructions
- Inspection and testing
 - Visual
 - Destructive testing
 - DFT
 - Bend test
 - Adhesion test
 - Measuring
 - Documentation
- Factors affecting bonding and subsequent build up
 - Cleanliness
 - Surface area
 - Surface profile
 - Temperature (thermal energy)
 - Time (reaction rates & cooling rates)
 - Velocity (kinetic energy)
 - Physical & chemical properties
 - Physical & chemical reactions

- As per specifications

Line (GAC): E APPLY PAINT AND COATINGS
Competency: E8 Use fibre-reinforced plastic

Objectives

To be competent in this area, the individual must be able to:

- Describe how to repair defects in fibre-reinforced plastic
- Apply fibre-reinforced plastic according to project specifications

LEARNING TASKS

CONTENT

- | | |
|---|---|
| <p>1. Describe fibre-reinforced plastic</p> | <ul style="list-style-type: none"> • History and development • Definitions and key terms • Resin • Materials <ul style="list-style-type: none"> ○ Mat ○ Roving ○ Filament ○ Veil • Curing systems • Additives • Safety, PPE • Environmental considerations |
| <p>2. Describe the hazards and required precautions for working with fibre-reinforced plastic</p> | <ul style="list-style-type: none"> • Hazards <ul style="list-style-type: none"> ○ Explosive ○ Chemical ○ Fibreglass dust • Precautions <ul style="list-style-type: none"> ○ Safety programs ○ Worker training ○ Ventilation ○ PPE |
| <p>3. Describe resin characteristics</p> | <ul style="list-style-type: none"> • Flammability ratings • Temperature limitations • Curing of resins • Catalysts, accelerators, and promoters • Lay-up thickness • Cure issues • Inspection |
| <p>4. Describe laminate and layout design</p> | <ul style="list-style-type: none"> • Basic reinforcements |

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <ul style="list-style-type: none"> 5. Describe tank linings and encapsulations
 6. Describe fabricating methods
 7. Describe how to repair defects in fibre-reinforced plastic
 8. Apply fibre-reinforced plastic according to project specifications | <ul style="list-style-type: none"> • Glass content • Glass arrangement • Butt and strap joints • Tees and laterals
 • Surface preparation • Curing system selection • Application system selection <ul style="list-style-type: none"> ○ Corrosion liner ○ Impermeable linings ○ National Sanitation Foundation (NSF) (potable water) ○ Structural integrity • Contact moulding • Filament winding • Pultrusion • Centrifugal casting • Resin injection mouldings • Compression moulding • Plural component systems
 • Resin selection • Simple fractures • Repair of holes • Filament wound structure repairs • Voids • Wrinkles • Delamination • Resin dryness • Resin richness • Crazing • Contamination • Specific tools and materials required • Inspection <ul style="list-style-type: none"> ○ Equipment ○ Protocol ○ Standards
 • As per project specifications |
|--|--|

Line (GAC): F APPLY WALL COVERING PROCEDURES
Competency: F1 Prepare and install wall coverings

Objectives

To be competent in this area, the individual must be able to:

- Remove wall coverings and adhesives
- Prepare for application of wall covering
- Install wall coverings

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <p>1. Describe wall covering materials and adhesives</p> | <ul style="list-style-type: none"> • Types • Purpose • Application • Storage and handling • Safety, PPE |
| <p>2. Describe surface preparation for installation of wall coverings</p> | <ul style="list-style-type: none"> • Substrate considerations <ul style="list-style-type: none"> ○ Repairs ○ Skim coat ○ Environment • Stripping <ul style="list-style-type: none"> ○ Tools and equipment <ul style="list-style-type: none"> ▪ Steamers ▪ Sponge and water ▪ Hand pump sprayers ▪ Score/perforator roller ○ Dry stripping ○ Surfactants • Removal of adhesive and contaminants from substrate • Full versus partial removal • Primers, stain blockers, sizing, sealers, and undercoats • Lining paper |
| <p>3. Prepare for application of wall covering</p> | <ul style="list-style-type: none"> • Lay out • Run and lot number • Quantity/inventory • Wall covering patterns <ul style="list-style-type: none"> ○ Straight ○ Random ○ Drop |

LEARNING TASKS

CONTENT

- 4. Prepare wall coverings
 - Hanging techniques for wall coverings to match patterns
 - Starting and finishing points
 - Identification of wall covering imperfections
 - Stains
 - Lack of colour uniformity
 - Determining inconsistency in pattern
 - Achieving a level line
 - Plumb bob
 - Level
 - Laser
 - Measuring tape and yard/meter stick
 - Accuracy
 - Application of wall covering prepping materials
 - Sizing
 - Acrylic paints
 - Alkyds
 - Manufacturer’s recommendations for
 - Pre-soaking
 - Folding
 - Booking
 - Storing prior to hanging
 - Identification of moisture problems and recommended corrective measures
 - Micro-permeable vinyl
 - Selection of adhesives for specific types of wall coverings
 - Trimming and cutting of wall coverings
 - Environmental considerations
 - Humidity
 - Temperature
 - Ventilation

- 5. Install wall coverings
 - Manufacturer’s recommendations for tools for a given application
 - Installation techniques based on the type of wall covering
 - Wallpaper/borders
 - Embossed paper
 - Murals
 - Vinyls

LEARNING TASKS

CONTENT

- Effects of environmental conditions on materials
- Starting and finishing points
- Patterns and reasons for reversal every alternate length for some materials
- Alternating bolts of wall covering for drop patterns
- Smoothing wall coverings
- Booking wall coverings
- Trimming excess materials and double cut seam
- Keeping wall coverings plumb and pattern consistent
 - Passing a corner
 - Working around doors and windows
- General cleanliness
- Repairs

Achievement Criteria

Performance The learner will prepare and install a wall covering.

Conditions The learner will be given:

- Material
- Tools
- Instructions

Criteria The learner will be evaluated on:

- Patterns match
- Seams
- Sequence and procedures
- Lay out
- Overall appearance

Line (GAC): F **APPLY WALL COVERING PROCEDURES**
Competency: F2 **Apply wall coverings**

Objectives

To be competent in this area, the individual must be able to:

- Install wall coverings

LEARNING TASKS

1. Prepare for application of wall covering
2. Apply adhesives
3. Install wall coverings

CONTENT

- Lay out
- Quantity/inventory
- Starting and finish points
- Identification of wall covering imperfections
 - Stains
 - Lack of colour uniformity
 - Delaminating
 - Inconsistency in pattern
- Application of wall covering prepping materials
 - Sizing
 - Lining paper
- Types and applications of adhesives
- Application techniques
- Brushing
- Rolling
- Using paste machines
- Determination of spreading rate
- Material, weight
- Thickness
- Temperature
- Adhesive selection for specific wall coverings
- Manufacturer’s specifications
- Installation techniques
- Commercial, vinyl, fabric, foil, wood
- Environmental considerations
- Patterns and reasons for reversal every alternate length for some materials
- Tools and equipment (see Section 5: Training Provider Standards)
- Smoothing wall coverings
- Beaded

LEARNING TASKS

CONTENT

- Delicate coverings
 - Booking wall coverings
 - Trimming excess materials
 - Seaming
 - Butt seam
 - Rectifying problems
 - Air bubbles
 - Excess adhesive on paper
 - Safety, PPE

- 4. Install fabric and natural material wall coverings
 - Installation techniques
 - Paper-backed fabrics
 - Grass cloth
 - Silks
 - Natural weaves
 - Burlaps
 - Acoustical fabric (with or without backing)
 - Characteristics of materials
 - Fabrics
 - Grass cloths
 - Burlaps
 - Types of backing
 - Tools (see Section 5: Training Provider Standards)
 - Handling to avoid stretches, runs and soiled surfaces
 - Manufacturers' recommendations

- 5. Install rigid wall coverings
 - Installation techniques
 - Cork
 - Wood veneer
 - Tack boards
 - White boards
 - Laminates
 - Characteristics of materials
 - Tools (see Section 5: Training Provider Standards)
 - Smoothing wall coverings
 - Manufacturers' recommendations

Achievement Criteria

Performance The learner will prepare and install coverings.

Conditions The learner will be given:

- Material
- Tools
- Instructions

Criteria The learner will score 70% or better on a rating sheet that reflects the following criteria:

- Pattern match
- Seams
- Sequence and procedures
- Lay out
- Overall appearance
- Adherence to specifications
 - Time
 - Waste

Line (GAC): **G APPLY FINISHES**

Competency: **G1 Apply wood finishes**

Objectives

To be competent in this area, the individual must be able to:

- Prepare wood finishes
- Apply wood finishes with brushes
- Apply wood finishes with spray equipment
- Wipe-on wood finishes
- Identify and correct common wood finishing failures

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <p>1. Describe the types of woods used in Painting and Decorating</p> | <ul style="list-style-type: none"> • Types of wood <ul style="list-style-type: none"> ○ Hardwoods <ul style="list-style-type: none"> ▪ Walnut ▪ Oak ▪ Teak ○ Softwoods <ul style="list-style-type: none"> ▪ Spruce ▪ Pine ▪ Fir ○ Open grain woods <ul style="list-style-type: none"> ▪ Walnut ▪ Oak ▪ Teak ○ Closed-grained woods <ul style="list-style-type: none"> ▪ Cherry ▪ Birch ▪ Maple |
| <p>2. Condition and prepare wood surfaces</p> | <ul style="list-style-type: none"> • Preparation procedures <ul style="list-style-type: none"> ○ Strip ○ Bleach ○ Sand • Purpose • Types of conditioners • Knowledge of woods that require conditioning • Manufacturer specifications • Drying time, application rate, and method |

LEARNING TASKS

3. Seal wood surfaces

4. Apply wood fillers

5. Describe wood finishes

CONTENT

- Types of sealers
 - Shellac
 - Varnishes
 - Lacquer
 - Water-borne
 - Urethane
- Sealer selection
- Application sequence (manufacturer’s specifications)
- Re-coat times/dry times (manufacturer’s specifications)
- Application methods
 - Brush
 - Rag
 - Roller and sprayer ensuring compatibility with substrate and successive coatings

- Types of wood fillers
- Application tools
- Application sequence
- Colouring filler to match wood grain
- Filling holes and imperfections
- Pasting wood filler to level out grain

- Types
 - Water-borne
 - Water-based
 - Alcohol-based
 - Urethane-based
 - Wax
 - Lacquer-based
 - Oil-based
 - Oil
 - Pigment
 - Dye
 - Powder
- Compatibility of finish with surface and previous coatings
- Environmental considerations

LEARNING TASKS

CONTENT

9. Wipe on wood finishes

- Preventing runs and sags
- Safety
 - PPE
 - Disposal
 - Storage
 - Ventilation of workplace

10. Identify and correct common wood finishing failures and deficiencies

- Wood finishes that can be wiped on
- Danish oils, lemon oils, stain
- Application tools
 - Cloth
 - Sponge
 - Squeegee
- Manufacturers' specifications
 - Penetrating time
 - Drying time
 - Recoat time
- Applying finish uniformly
- Safety
 - PPE
 - Disposal of used cloths
 - Ventilation
- Correction of failures and deficiencies
 - Cause
 - Repair

Achievement Criteria 1

Performance The learner will strip, sand, condition, fill, seal and finish a panel(s).

Conditions The learner will be given:

- Panel
- Instructions
- Materials
- Tools
- Variety of finishes
- Specifications

Criteria The learner will score 70% on a rating sheet that reflects the following criteria:

- Accuracy in procedures
- Finishing deficiencies
- Proper tool use
- Safety, PPE
- Overall appearance

Achievement Criteria 2

Performance The learner will strip, sand, condition, fill, seal and finish a wood project.

Conditions The learner will be given:

- Panel
- Instructions
- Materials
- Tools
- Variety of finishes
- Specifications

Criteria The learner will score 70% on a rating sheet that reflects the following criteria:

- Accuracy in procedures
- Finishing deficiencies
- Proper tool use
- Safety, PPE
- Overall appearance.

Level 3

Painter and Decorator

Line (GAC): C ORGANIZE WORK

Competency: C1 Use mathematics

Objectives

To be competent in this area, the individual must be able to:

- Apply mathematical principles to solve problems including calculating area, volume, proportion, angles, and estimating

LEARNING TASKS

1. Solve geometric problems

CONTENT

- Area
- Perimeter
- Volume
- Angles
- Arc
- Radius and diameter
- Formulas for area of:
 - Square and rectangles
 - Triangles
 - Parallelogram
 - Trapezoid
 - Cylinders
 - Circle
 - Sector
 - Segment

2. Solve problems of ratio and proportion

- Ratio
- Proportion
- Unknown quantities
- Estimating

Line (GAC): C **ORGANIZE WORK**
Competency: C2 **Interpret drawings and specifications**

Objectives

To be competent in this area, the individual must be able to:

- Describe the types and basic functionality of drawings used in the Painter/Decorator trade
- Calculate material requirements for a given application, using blueprints, finishing schedules, and specifications

LEARNING TASKS

1. Describe architectural drawings in detail

CONTENT

- Types
 - Architectural
 - Plumbing
 - Mechanical
 - Electrical
- Hierarchy of drawings
- Basic architectural terms
- Site plans
- Floor plans
- Interior and exterior elevations
- Building specifications
- Detail sections

2. Identify components found on drawings

- Basic format
 - Lines
 - Symbols
 - Notes
 - Abbreviations
 - Material list
 - Scale
 - Direction marks and placement marks
 - Centres and work points
 - Grid lines
 - Details
 - Title block
 - Legend

3. Identify views on drawings

- Orthographic projections
- Pictorial
- Isometric
- Oblique
- Plan

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <p>4. Describe finishing schedules</p> | <ul style="list-style-type: none"> • Elevation • Sections |
| <p>5. Apply specifications to a specific worksite scenario</p> | <ul style="list-style-type: none"> • Purpose • Basic architectural terms • Scheduling tasks |
| <p>6. Calculate material requirements for a given application, using blueprints, finishing schedules, and specifications</p> | <ul style="list-style-type: none"> • Scope of work • Scheduling • Quality control/assurance • Related documents • General conditions • Acceptance of substrate prior to painting |

Line (GAC): C **ORGANIZE WORK**
Competency: C5 **Plan a project**

Objectives

To be competent in this area, the individual must be able to:

- Plan and schedule a painting project

LEARNING TASKS

1. Describe how a project is organized

CONTENT

- Site survey
 - Materials
 - Equipment
 - Staffing
 - Site access
- Project specifications
- Safety
 - Muster area
- Sequence of operation
- Coordination with other trades
- Documentation
 - Permits
 - Licenses
 - Programs
- Procedures
 - Emergency
 - General communication
- Required documentation
- Estimation of material and equipment
- Inventory requirements
 - Secure storage
 - Time delivery
 - Labelling materials
 - Stock maintenance
 - Consumables
- Checklist utilization
- Safety
- Site security for material and equipment
- Packaging/Shipping
- Timelines
- Crew and material/equipment required

2. Select material and equipment for the project

3. Schedule a project

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <ul style="list-style-type: none"> 4. Plan a project according to project requirements | <ul style="list-style-type: none"> • Coordination • Customer communications • Communication with other trades |
| <ul style="list-style-type: none"> 4. Plan a project according to project requirements | <ul style="list-style-type: none"> • According to specifications |

Achievement Criteria

- | | |
|-------------|---|
| Performance | The learner will plan a project according to instructor’s specifications. |
| Conditions | The learner will be given: <ul style="list-style-type: none"> • Project specifications |
| Criteria | The learner will score 70% or better on a rating sheet that reflects the following criteria: <ul style="list-style-type: none"> • Rationale • Execution |

Line (GAC):	D	PREPARE SURFACES
Competency:	D1	Prepare and repair drywall and plaster surfaces

Objectives

To be competent in this area, the individual must be able to:

- Identify drywall and plaster surface imperfections
- Prepare drywall and plaster surfaces
- Repair drywall and plaster surfaces

LEARNING TASKS

CONTENT

1. Review surface deficiencies and imperfections	<ul style="list-style-type: none"> • Causes • Excessive moisture • Efflorescence • Improper taping, filling, and sanding • Insufficient cure of plaster/masonry • Types <ul style="list-style-type: none"> ○ Holes ○ Cracks ○ Dents ○ Improper taping ○ Beading ○ Nail and screw pops ○ Contaminants • Damage from moisture, mould, and mildew • Hotspots (plaster) • Neutralizing
2. Review cleaning surfaces	<ul style="list-style-type: none"> • Consequences of unclean surfaces • Selection of cleaning equipment • Cleansing procedures <ul style="list-style-type: none"> ○ Sweeping drywall ○ Rinse/wipe surfaces
3. Review sanding surfaces	<ul style="list-style-type: none"> • Tools and equipment • Sanding sequence • Sanding practices • Direction, pressure, and feathering
4. Review drywall and plaster repair materials and methods	<ul style="list-style-type: none"> • Types of compounds <ul style="list-style-type: none"> ○ All-purpose ○ Taping filler

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <p>5. Review application of drywall and plaster repair techniques</p> | <ul style="list-style-type: none"> ○ Topping filler ○ Fast-set filler ● Characteristics of filling compounds <ul style="list-style-type: none"> ○ Thixotropy ○ Open time ○ Workability ○ Flexibility ● Types of tape <ul style="list-style-type: none"> ○ Fibre ○ Paper (perforated and non-perforated) ● Taping methods <ul style="list-style-type: none"> ○ Manual ○ Machine ○ Dry tape ○ Wet tape ● Types of corner bead <ul style="list-style-type: none"> ○ Fibre ○ Metal ○ Plastic ○ Paper ● Setting time and recoat time of various compounds ● Waste disposal ● Plaster of Paris (fast set) |
| <p>6. Review application of drywall and plaster finishing techniques</p> | <ul style="list-style-type: none"> ● Tools/equipment <ul style="list-style-type: none"> ○ Hawk ○ Trowels ○ Broad knives ○ Reference to other equipment (see Section 5: Training Provider Standards) ● Mixing compounds to required consistency ● Sanding between coats ● Applying bleach and mildewcide ● Filling cracks, holes, and dents ● Reference to lathing procedures |
| <p>6. Review application of drywall and plaster finishing techniques</p> | <ul style="list-style-type: none"> ● Tools used for application ● Installation of corner bead ● Application sequence of compound ● Setting and recoating times for various compounds |

LEARNING TASKS

7. Review the limitations of surface preparation

CONTENT

- Spreading compound uniformly
 - Assessing drywall surface prior to mudding
 - Levels of drywall mudding
 - Rough coats
 - Final coats
 - Temperature and humidity considerations
-
- Access
 - Environmental considerations
 - Possible damage to property
 - Safety precautions

Line (GAC): **D PREPARE SURFACES**
Competency: **D3 Treat and repair concrete and masonry surfaces**

Objectives

To be competent in this area, the individual must be able to:

- Apply surface preparation techniques for concrete and masonry
- Treat new concrete and masonry surfaces
- Repair concrete and masonry surfaces

LEARNING TASKS

CONTENT

- | | |
|---|--|
| 1. Review surface deficiencies | <ul style="list-style-type: none"> • Causes <ul style="list-style-type: none"> ○ Contamination ○ Excessive moisture ○ Efflorescence ○ Improperly cured concrete, masonry ○ Spalling ○ Laitance |
| 2. Review how to treat new concrete and masonry | <ul style="list-style-type: none"> • Safety • Purpose of etching • Etching materials • Purpose of neutralizing • Neutralizing materials • Hazards associated with etching materials • Form release agent contamination • Surface preparation standards |
| 3. Review application techniques used to treat new concrete | <ul style="list-style-type: none"> • Tools • Surface preparation prior to treatment of concrete • Mixing and handling neutralizing and etching materials • Removing contaminants, neutralizing and etching residues |
| 4. Review different types of chemical treatment and their applications | <ul style="list-style-type: none"> • Safety, PPE • Purpose • Applications • Types <ul style="list-style-type: none"> ○ Solvents ○ Acids ○ Detergents |

LEARNING TASKS

CONTENT

- | | |
|---|---|
| <p>5. Review application of chemical treatment to a given surface</p> | <ul style="list-style-type: none"> ○ Cleaners ○ Degreasers ○ Emulsifiers ○ Alkalis <ul style="list-style-type: none"> ● Safety precautions ● Chemical cleaning ● Environmental concerns ● Mixing procedures and ratios ● Application methods ● Application tools <ul style="list-style-type: none"> ○ Brushes ○ Rags ○ Mops ○ Squeegees ● Ventilation requirements ● Post-application, rinsing and neutralizing of the surface |
| <p>6. Review different types of mechanical treatment and their applications</p> | <ul style="list-style-type: none"> ● Safety, PPE ● Reference abrasive blasting ● Acquiring/retaining surface profile ● Purpose ● Types of mechanical treatment <ul style="list-style-type: none"> ○ Scarifiers ○ Sanders ○ Grinders ○ Needle guns ○ Abraders |
| <p>7. Review scraping surfaces</p> | <ul style="list-style-type: none"> ● Types of scrapers ● Types of substrate <ul style="list-style-type: none"> ○ Cautionary measures ● Hazards ● Removal of loose and peeling paint and coatings ● Removal of gross contaminants |
| <p>8. Review how to sand surfaces</p> | <ul style="list-style-type: none"> ● Types of substrate ● Types of power sanders ● Types of sanding tools and equipment |

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <p>9. Review sanding surfaces</p> | <ul style="list-style-type: none"> • Types of finish to be applied • Required smoothness |
| <p>10. Review how to repair concrete and masonry surfaces</p> | <ul style="list-style-type: none"> • Sanding sequence • Sanding practices |
| <p>11. Review application of procedure or treatment to prepare a substrate</p> | <ul style="list-style-type: none"> • Imperfections to be repaired • Materials used to repair concrete • Filling cracks, gaps, and honeycombs • Tools |
| | <ul style="list-style-type: none"> • According to job specifications |

Line (GAC): E **APPLY PAINT AND COATINGS**
Competency: E6 **Use specialty spray equipment**

Objectives

To be competent in this area, the individual must be able to:

- Use specialty spray equipment to apply material for a given project

LEARNING TASKS

1. Describe specialty spray equipment

2. Describe air-assisted airless systems

3. Use air-assisted airless systems

4. Describe electrostatic spray

CONTENT

- Types
 - Electrostatic
 - Plural components
 - Fixed and variable proportion
 - Air assisted airless
- Environmental considerations
- Advantages and limitations
- Spraying distance
- Safety, PPE
- Equipment
- Operation
 - Set-up
 - Substrate
- Application
- Maintenance
- Inspection
- Troubleshooting
- According to job specifications
- Advantages and limitations
- Spraying distance
- Recessed areas
- Safety, PPE
- Equipment
- Coating polarity
- Operation
 - Set-up
 - Substrate
 - Grounds
- Application
- Maintenance

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <ul style="list-style-type: none"> 5. Use electrostatic spray to meet project 6. Describe plural component systems 7. Use plural component systems 8. Describe powder coating systems 9. Use powder coating systems to apply material for a given applications | <ul style="list-style-type: none"> ○ Inspection ● Troubleshooting ● As per job specifications ● Advantages and limitations ● Safety, PPE ● Equipment ● Operation <ul style="list-style-type: none"> ○ Set-up ○ Calibration ○ Viscosity control (heat) ● Application ● Maintenance <ul style="list-style-type: none"> ○ Inspection ● Troubleshooting ● According to job specifications ● Types <ul style="list-style-type: none"> ○ Cloud chamber ○ Electrostatic <ul style="list-style-type: none"> ▪ Air-assisted airless ▪ Air spray ○ Fluidized bed ● Advantages and limitations ● Safety, PPE ● Equipment ● Materials <ul style="list-style-type: none"> ○ Thermoset ○ Thermoplastic ● Operation <ul style="list-style-type: none"> ○ Set-up ○ Calibration ● Application <ul style="list-style-type: none"> ○ Heating/curing methods ● Maintenance <ul style="list-style-type: none"> ○ Inspection ● Troubleshooting ● According to job specifications |
|---|--|

Achievement Criteria

Performance	The learner will use specialty spray to apply material to a given project.
Conditions	The learner will be given: <ul style="list-style-type: none">• Tools• Material• Equipment• Instructions
Criteria	The learner will score 70% or better on a rating sheet that reflects the following criteria: <ul style="list-style-type: none">• Technique• Safety• Sequence/procedure

Line (GAC): F APPLY WALL COVERING PROCEDURES
Competency: F2 Apply wall coverings

Objectives

To be competent in this area, the individual must be able to:

- Review installation of wall coverings
- Install vinyl wall coverings

LEARNING TASKS

1. Prepare for application of wall covering

2. Apply adhesives

3. Install wall coverings

CONTENT

- Lay out
- Quantity/inventory
- Starting and finish points
- Identification of wall covering imperfections
 - Stains
 - Lack of colour uniformity
 - Delaminating
 - Inconsistency in pattern
- Application of wall covering prepping materials
 - Sizing
 - Lining paper
- Types and applications of adhesives
- Application techniques
 - Brushing
 - Rolling
 - Paste machines
- Determination of spreading rate
 - Material
 - Weight
 - Thickness
 - Temperature
- Selection of adhesive for specific wall coverings
- Manufacturer’s specifications
- Installation techniques
- Commercial, vinyl, fabric, foil, wood
- Environmental considerations
- Patterns and reasons for reversal every alternate length for some materials

LEARNING TASKS

CONTENT

- Tools and equipment (see Section 5: Training Provider Standards)
 - Smoothing wall coverings
 - Beaded
 - Delicate coverings
 - Booking wall coverings
 - Trimming excess materials and double cut seam
 - Rectifying problems including air bubbles and excess adhesive on paper
 - Safety, PPE

- 4. Install fabric and natural material wall coverings
 - Installation techniques for fabric and natural materials
 - Paper-backed fabrics
 - Grass cloth
 - Silks
 - Natural weaves
 - Burlaps
 - Acoustical fabric (with or without backing)
 - Characteristics of materials
 - Fabrics
 - Grass cloths
 - Burlaps
 - Types of backing
 - Tools (see Section 5: Training Provider Standards)
 - Handling fabric and natural wall coverings to avoid stretches, runs, and soiled surfaces
 - Manufacturers' recommendations

- 5. Install rigid wall coverings
 - Installation techniques
 - Cork
 - Wood veneer
 - Tack boards
 - White boards
 - Laminates
 - Characteristics of materials
 - Tools (see Section 5: Training Provider Standards)
 - Smoothing wall coverings
 - Manufacturers' recommendations

Line (GAC): G **APPLY FINISHES**
Competency: G2 **Apply decorative finishes**

Objectives

To be competent in this area, the individual must be able to:

- Apply decorative finishes using the appropriate techniques according to job specifications and standards

LEARNING TASKS

1. Describe decorative finishes

2. Describe decorative tools and equipment

3. Describe decorative media

4. Describe decorative materials

CONTENT

- Types
 - Faux
 - Gilding
 - Plaster/texture
 - Marbleizing
 - Stencils
 - Graphics
 - Multi-spec (incompatible coatings)
- Spray equipment
- Type of finish determines appropriate tool
- Tools (see Section 5: Training Provider Standards)
- Paints
 - Latex
 - Alkyd
 - Artist oils
 - Acrylics
- Glazes
 - Latex
 - Alkyd
- Paint conditioner
 - Viscosity control
- Pigments/dyes
- Stains
- Other
 - Mineral
 - Vegetable
 - Synthetic
- Adhesives
- Metal leaf/sizing

LEARNING TASKS

CONTENT

- 5. Prepare substrate according to specifications
 - Stencils
 - Materials
 - Mylar
 - Polyester
 - Film
 - Paper
 - Cardboard
 - Metal
 - Polystyrene
 - Substrate
 - Required finish
 - Technique
 - Materials
 - Desired effect
 - Translucency
 - Opaqueness
 - Transparency
 - Drying and set-up times (open time) of finishes used
 - 6. Apply decorative finishes using the appropriate techniques according to job specifications and standards
 - Finishes
 - Colour harmony
 - Formulas
 - Mixing finishes
 - Techniques
 - Natural or synthetic structure and pattern
 - Positive-negative
 - Random or uniform
 - Producing the illusion of structure, depth, and texture
 - Stipple, knockdown
 - Produce texture
 - Awareness of substrates
 - Uniform patterns
 - Safety, PPE

Achievement Criteria

Performance	The learner will produce and apply a decorative finish.
Conditions	The learner will be given: <ul style="list-style-type: none">• Instructions• Materials• Tools
Criteria	The learner will score 70% or better on a rating sheet that reflects the following criteria: <ul style="list-style-type: none">• Uniformity/accuracy• Housekeeping• Colour harmony• Sequence and procedures

Section 4

ASSESSMENT GUIDELINES

Assessment Guidelines – Level 1

Level 1 Grading Sheet: Subject Competency and Weightings

PROGRAM: IN-SCHOOL TRAINING:		PAINTER AND DECORATOR LEVEL 1	
LINE	SUBJECT COMPETENCIES	THEORY WEIGHTING	PRACTICAL WEIGHTING
A	USE SAFE WORK PRACTICES	25%	10%
B	USE TOOLS AND EQUIPMENT	15%	0%
C	ORGANIZE WORK	8%	0%
D	PREPARE SURFACES	22%	15%
E	APPLY PAINT AND COATINGS	22%	30%
G	APPLY FINISHES	0%	25%
H	APPLY COLOUR THEORY	8%	20%
	Total	100%	100%
In-school theory/practical subject competency weighting		70%	30%
Final in-school percentage score		IN-SCHOOL %	

In-school Percentage Score Combined theory and practical subject competency multiplied by	80%
Standardized Level Exam Percentage Score The exam score is multiplied by	20%
Final Percentage Score	FINAL%

Assessment Guidelines – Level 2

Level 2 Grading Sheet: Subject Competency and Weightings

PROGRAM: IN-SCHOOL TRAINING:		PAINTER AND DECORATOR LEVEL 2	
LINE	SUBJECT COMPETENCIES	THEORY WEIGHTING	PRACTICAL WEIGHTING
B	USE TOOLS AND EQUIPMENT	8%	10%
C	ORGANIZE WORK	8%	0%
D	PREPARE SURFACES	20%	15%
E	APPLY PAINT AND COATINGS	30%	35%
F	APPLY WALL COVERING PROCEDURES	17%	25%
G	APPLY FINISHES	17%	15%
	Total	100%	100%
In-school theory/practical subject competency weighting		60%	40%
Final in-school percentage score		IN-SCHOOL %	

In-school Percentage Score Combined theory and practical subject competency multiplied by	80%
Standardized Level Exam Percentage Score The exam score is multiplied by	20%
Final Percentage Score	FINAL%

Assessment Guidelines – Level 3

Level 3 Grading Sheet: Subject Competency and Weightings

PROGRAM: IN-SCHOOL TRAINING:		PAINTER AND DECORATOR LEVEL 3	
LINE	SUBJECT COMPETENCIES	THEORY WEIGHTING	PRACTICAL WEIGHTING
C	ORGANIZE WORK	11%	25%
D	PREPARE SURFACES	5%	0%
E	APPLY PAINT AND COATINGS	12%	30%
F	APPLY WALL COVERING PROCEDURES	36%	0%
G	APPLY FINISHES	36%	45%
	Total	100%	100%
In-school theory/practical subject competency weighting		50%	50%
Final in-school percentage score		IN-SCHOOL %	
Apprentices must achieve a minimum 70% as the final in-school percentage score to be eligible to write the Interprovincial Red Seal exam.			

All apprentices who complete Level 3 of the Painter and Decorator program with a FINAL level mark of 70% or greater will write the Interprovincial Red Seal examination as their final assessment.

SkilledTradesBC will enter the apprentices Painter and Decorator Red Seal Interprovincial examination mark in SkilledTradesBC Portal. A minimum mark of 70% on the examination is required for a pass.

Section 5

TRAINING PROVIDER STANDARDS

Facility Requirements

Classroom Area

- Comfortable seating and tables suitable for learning
- Compliance with the local and national fire code and occupational safety requirements
- Overhead and/or multimedia projectors with a projection screen
- Whiteboard with marking pens and erasers
- Lighting controls to allow easy visibility of the projection screen while allowing students to take notes
- Windows must have shades or blinds to adjust sunlight
- Heating/air conditioning for comfort all year round
- In-room temperature control to ensure comfortable room temperature
- Acoustics in the room must allow audibility of the instructor
- Access to a computer with internet access
- Appropriate reference material for student and instructor use

Shop Area

- Adequate space for a tool crib and storage
- Minimum 10 ft. ceiling height in shop areas
- Minimum 200 sq. ft./ student (not including tool crib and storage)
- Adequate heating, lighting and ventilation
- Refuse and recycling bins for used shop materials
- First-aid equipment
- Shops will support practical requirements as outlined in the program outline

Lab Requirements

- N/A

Student Facilities

- Adequate lunchroom as per WorkSafeBC requirements
- Adequate washroom facilities as per WorkSafeBC requirements
- Personal Storage lockers
- Clean-up (personal hygiene) facilities for students

Instructor's Office Space

- Desk and secure filing space
- Computer
- Staff lounge appropriate for the number of staff

Tools and Equipment

Shop Equipment and Tools

Required

Access Equipment and Hoisting and Lifting Equipment

- Breathable air pack
- Aerial platforms (boom and scissor lifts)
- Boatswain's chair
- Ladders
- Mechanical scaffolds
- Planks (aluminum, wood)
- Rolling scaffolds
- Spider cage
- Stationary scaffolds
- Stilts
- Swing stage

Measuring and Testing Equipment

- Adhesion tester
- Air monitoring equipment
- Architectural rule
- Blotter test kit
- Calculator
- Dry film thickness gauge
- Holiday detector
- Humidity meter
- Lead test kit
- Measuring tape
- Mirror (telescoping)
- Moisture meter
- Profile gauge/replica tape
- Salt test kit
- Sling psychrometer
- Dew point meter (DPM)
- Thermometers
- Viscosity cup
- Wet mil gauge

PPE and Safety Equipment

- Air conditioners/heaters for fresh air hood
- Air purifiers

- Blast-spray hood
- Coveralls
- Ear plugs and muffs
- Exhaust fan
- Eye wash station
- Face shields
- Fall arrest equipment
- Fire blankets
- Fire extinguishers
- Fire hoses
- First aid equipment
- Fume and toxic gas detector
- Gloves
- Goggles
- Hard hat
- Knee pads
- Hand cleaner
- Masks (particulate, vapour)
- Respirators
- Rope grabs
- Safety glasses
- Safety vest
- Signage
- Spill kits
- Steel toe boots
- Toe guards
- Warning tapes

Specialty Wall Covering Tools

- Glue gun
- Hypodermic needle/syringe
- Paste brush
- Paste machine
- Paste table
- Plastic smoother
- Seam roller
- Shears/scissors
- Smoothing brush
- Steam stripper
- Trimming wheels
- Vinyl table

- Water trough/dams

Specialty Finishing Tools and Equipment

- Artistic brushes
- Badger blender
- Check roller
- Dragger
- Fan brushes
- Fitch brushes
- Flogging brush
- Gilding brush
- Goose feathers
- Graining-combs
- Mottling brush
- Piped overgrainer
- Projectors
- Rocker grainer
- Sea sponges
- Stencil brush
- Stencil knife
- Stencils
- Stiplers
- Sword stripers

Spray Equipment

- Air-assisted airless system
- Air compressor
- Airless pumps
- Conventional air spray system
- Electrostatic spray equipment
- HVLP equipment
- Plural component pumps
- Pump filters
- Spray gun extensions
- Spray guns
- Spray hoods
- Spray lines
- Spray tips and housing
- Spray whips and swivels
- Texture spray machine

Standard Tools

- Air hose repair kit
- Allen keys
- Apron
- Broad knife
- Broom
- Brush and roller spinner
- Brush extender
- Brushes (various types of natural
And synthetic bristle brushes)
- Can hook
- Caulking gun
- Chalk line
- Cutters
- Drop sheets
- Dust pan
- Dusters
- Extension poles
- Felt marker
- Files
- Hammers
- Hand masking machine
- Hawk
- Leather chamois
- Masking tape
- Mop
- Nail punch
- Nut drivers
- Pails
- Paint pads
- Paint strainers
- Plastic bags
- Polyplastic
- Pliers
- Plumb bob
- Pole sander
- Putty knives
- Rags
- Razor blade
- Roller cage
- Roller grids

- Rollers
- Sanding block
- Sanding sponge
- Sandpaper
- Scrapers
- Screwdrivers
- Shovel
- Spinner
- Spirit level
- Sponges
- Squeegee
- Stir sticks
- Straight edge
- Tack cloth
- Tarps/containments
- Tool grip (workbag)
- Trays
- Trowels
- Utility knife
- Wire brush
- Wrench sets

Reference Materials

Required Reference Materials

- Contact Training Facility for Required Reference Material

Recommended Resources

- SkilledTradesBC www.skilledtradesbc.ca
- BC Construction Industry Training Organization www.bccito.com
- Workplace Hazardous Materials Information System (WHMIS) and First Aid <http://www.hc-sc.gc.ca/ewh-semt/occup-travail/whmis-simdut/index-eng.php>
- WorkSafeBC (WCB) www.worksafebc.com
- Codes:
 - National Fire Code of Canada <http://www.nrc-cnrc.gc.ca/eng/ibp/irc/codes/2010-national-fire-code.html>
 - BC Ministry of Housing www.housing.gov.bc.ca/building
 - King's Printer for BC Code books <http://www.bccodes.ca/default.htm>
 - BC Building Code
 - BC Fire Code
 - BC Electrical Code
 - National Fire Protection Association www.nfpa.org
 - NFPA 80 – Standards for Fire Doors and Fire Windows
 - NFPA 101 – Life Safety Code
 - Canadian National Building Code <http://www.nrc-cnrc.gc.ca/eng/ibp/irc/codes/2010-national-building-code.html>

Suggested Texts

- Contact Training Facility for Suggested Texts

Instructor Requirements

Occupation Qualification

The instructor must possess:

- Painter & Decorator – Certificate of Qualification with Interprovincial Red Seal Endorsement

Work Experience

A minimum of 5 years of experience working in the industry as a journeyman.

Instructional Experience and Education

It is preferred that the instructor also possesses one of the following:

- Instructor Diploma or equivalent
- Bachelor's Degree in Education

Appendices

Appendix A Summary of Achievement Criteria

Achievement Criteria are included for competencies that require a practical assessment. The intent of including Achievement Criteria in the Program Outline is to ensure consistency in training across the many training institutions in British Columbia. Their purpose is to reinforce the theory and to provide a mechanism for evaluation of the learner’s ability to apply the theory to practice. It is important that these performances be observable and measurable and that they reflect the skills spelled out in the competency. The conditions under which these performances will be observed and measured must be clear to the learner as well as the criteria by which the learner will be evaluated. The learner must also be given the evaluation criteria.

The performance spelled out in the Achievement Criteria is a suggested performance and is not meant to stifle flexibility of delivery. Training providers are welcome to substitute other practical performances that measure similar skills and attainment of the competency. Multiple performances may also be used to replace individual performances where appropriate.

The following tables summarize the practical assessments for each level. **For details, please refer to the Achievement Criteria following the competency in the Program Content section.**

PAINTER AND DECORATOR – LEVEL 1 SUMMARY OF ACHIEVEMENT CRITERIA	
SUBJECT COMPETENCY	ACHIEVEMENT CRITERIA TASK
A4 Use fall protection systems and equipment	The learner will perform a fit test.
A5 Use personal protective equipment	The learner will be fit-tested for a respirator.
D1 Prepare and repair drywall and plaster surfaces	The learner will repair defects in a drywall surface.
D6 Perform hydro cleaning	The learner will pressure wash a given area.
E1 Apply paint	The learner will apply coating to a surface.
E5 Use airless spray equipment	The learner will spray a surface according to specifications.
G3 Apply graphics	The learner will lay out and apply paint to a graphic based on given specifications.
H1 Use colour theory	The learner will perform draw downs, colour matching and colour muting.
H2 Mix and match colours	The learner will match colours to project specifications.

PAINTER AND DECORATOR – LEVEL 2 SUMMARY OF ACHIEVEMENT CRITERIA	
SUBJECT COMPETENCY	ACHIEVEMENT CRITERIA TASK
B5 Use hoisting and lifting equipment	The learner will calculate weights and rig for a given scenario.
D4 Prepare and repair metal surfaces	The learner will perform quality control/assurance.
D5 Perform abrasive blasting	The learner will perform abrasive blasting on a panel.
E2 Apply industrial coatings and materials	The learner will apply a coating to a given substrate.
E4 Use air spray equipment	The learner will use air spray equipment to apply material to a given project.
F1 Prepare and install wall coverings	The learner will prepare and install a wall covering.
F2 Apply wall coverings	The learner will prepare and install coverings.
G1 Apply wood finishes	1. The learner will strip, sand, condition, fill, seal and finish a panel(s). 2. The learner will strip, sand, condition, fill, seal and finish a wood project.

PAINTER AND DECORATOR – LEVEL 3 SUMMARY OF ACHIEVEMENT CRITERIA	
SUBJECT COMPETENCY	ACHIEVEMENT CRITERIA TASK
C5 Plan a project	The learner will plan a project according to instructor's specifications.
E6 Use specialty spray equipment	The learner will use specialty spray to apply material to a given project.
G2 Apply decorative finishes	The learner will produce and apply a decorative finish.