Skilled Trades Ontario | Métiers spécialisés Ontario

Apprenticeship Curriculum Standard

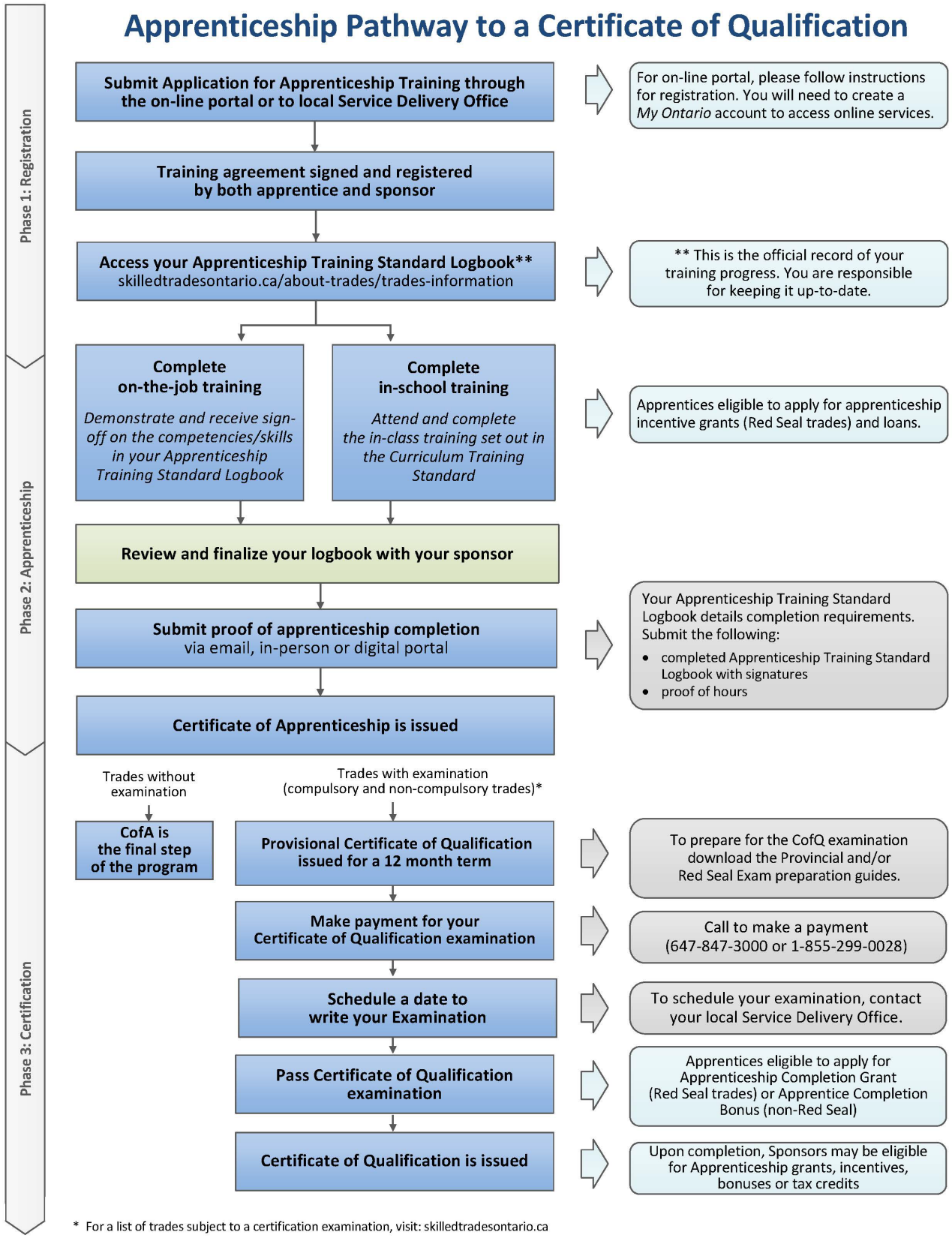
Painter and Decorator

Common Core Level 1 &2:
Commercial & Residential 404C
Industrial 404D

Level 3
Commercial & Residential 404C
Industrial 404D

2004

Apprenticeship Pathway to a Certificate of Qualification



* For a list of trades subject to a certification examination, visit: skilledtradesontario.ca

Draft version: 2022-03-16

Table of Contents

Please Note: This Standard has been revised to reflect the visual identity of Skilled Trades Ontario (STO) which replaced the Ontario College of Trades on January 1, 2022. The content of this Standard may refer to the former organization; however, all trade specific information or content remains relevant and accurate based on the original date of publishing.

Please refer to STO's website: **skilledtradesontario.ca** for the most accurate and up to date information. For information about BOSTA and its regulations, please visit ***Building Opportunities in the Skilled Trades Act, 2021* (BOSTA).**

Any updates to this publication are available on-line; to download this document in PDF format, please follow the link: Skilled Trades Ontario.ca.

Maintained with transfer to Skilled Trades Ontario 2004 (V100)

Preface

This curriculum standard for the Painter and Decorator trade program is based upon the on-the-job performance objectives, located in the industry-approved training standard.

The curriculum is organized into 3 levels of training. The Reportable Subjects Summary chart (located on page 3) summarizes the training hours for each reportable subject.

The curriculum identifies the learning that takes place in-school. The in-school program focuses primarily on the theoretical knowledge and the essential skills required to support the performance objectives of the Apprenticeship Training Standards.

Employers/Sponsors are expected to extend the apprentice's knowledge and skills through practical training on a work site. Regular evaluations of the apprentice's knowledge and skills are conducted throughout training to verify that all apprentices have achieved the learning outcomes identified in the curriculum standard.

It is not the intent of the in-school curriculum to perfect on-the-job skills. The practical portion of the in-school program is used to reinforce theoretical knowledge. Skill training is provided on the job.

Please refer to Skilled Trades Ontario website (www.skilledtradesontario.ca) for the most accurate and up-to-date information about Skilled Trades Ontario. For information on *Building Opportunities in the Skilled Trades Act, 2021 (BOSTA)*) and its regulations, please visit Building Opportunities in the Skilled Trades Act, 2021, S.O. 2021, c. 28 - Bill 288 (ontario.ca)

Pre-requisites

In order to advance to Level 2 of the apprenticeship program, an individual must have completed all of the units outlined in Level 1. Similarly, in order to advance to Level 3 of the program, an individual must have completed all of the units outlined in Level 1 and 2.

Hours Disclaimer (if applicable)

It is agreed that Training Delivery Agents (TDAs) may need to make slight adjustments (with cause) according to particular apprentice needs and may deviate from the unit sequencing and the prescribed practical and theoretical hours shown within the standard. However, all TDAs will comply with the hours at the reportable subject level.

Suggested Equipment for Training Delivery Agencies

Personal and Safety Equipment: Personal protective equipment is at the discretion of the TDA who must conform to Ontario Provincial Health and Safety Regulations.

Introduction

This new curriculum standard for the Painter and Decorator trade is designed down from the learning outcomes which were in turn developed from the industry-approved training standard.

The curriculum is organized into three levels (Levels I , II and III) and two branches (Industrial and Commercial/Residential) of training, each including reportable subjects containing like or similar learning outcomes to reflect the units of the training standard. The hours charts indicates how the curriculum can be delivered in the current block release format and summarizes the hours of training for each reportable by level or branch. Since the reportable subjects are all divisible by three they can be adapted to accommodate a more flexible training delivery other than block release.

Additional learning outcomes, foundational for learning the trade, have been added to those found in the training standard: calculations, science, trade and customer awareness, computers, lifting, ladders, scaffolding and rigging, confined space, and lead abatement. The safety content has been enhanced to provide apprentices the ability to work safely and to assist employers in maintaining accident-free workplaces. The reportable subjects are cross-referenced to the training standard for ease of comparison.

Each reportable subject and learning outcome identifies a recommended number of training hours. This hour allotment is broken into hours for instruction in theory and practical application. The division of the curriculum into reportable subjects that follow a natural progression of learning through the levels and branches of training will allow training centres and apprentices' flexibility in program delivery while still observing the importance of sequencing learning in a logical progression.

The curriculum is framed by and includes specific references to skills in the Apprenticeship Training Standards for Painter and Decorator. However, it identifies only the learning which takes place off the job. The in-school program focuses primarily on the theoretical knowledge required to master the performance objectives of the Training Standards. Employers are expected to extend the apprentice's knowledge and skills through appropriate practical training on the work site. Regular evaluations of the apprentice's knowledge and skills are conducted throughout training to ensure that all apprentices have achieved the learning outcomes identified in the curriculum standard. The balance between theoretical and practical evaluation is identified for each unit of learning outcomes.

Implementation date:
September 2004

Program Summary of Reportable Subjects

Number	Reportable Subjects	Hours Total	Hours Theory	Hours Practical
Level 1 Common Core				
Unit 1	Workplace Health & Safety I	66	49	17
Unit 2	Trade Calculations & Science I	42	36	6
Unit 3	Tools & Equipment I	24	21	3
Unit 4	Surface Preparation I	45	9	36
Unit 5	Coating Applications I	42	12	30
Unit 6	Wall Covering I	21	6	15
Level 1 Common Core Total		**240**	**133**	**107**
Level 2 Common Core				
Unit 1	Workplace Health & Safety II	60	53	7
Unit 2	Trade Calculations & Science II	27	21	6
Unit 3	Tools & Equipment II	15	15	0
Unit 4	Surface Preparation II	42	21	21
Unit 5	Coating Applications II	54	30	24
Unit 6	Spray Coating Applications I	18	6	12
Unit 7	Wall Covering II	24	6	18
Level 2 Common Core Total		**240**	**152**	**88**
Level 3 Industrial				
Unit 1	Workplace Health & Safety III	66	33	33
Unit 2	Trade Calculations & Science III	57	36	21
Unit 3	Tools & Equipment III	12	9	3
Unit 4	Surface Preparation III	45	21	24
Unit 5	Coating Applications III	24	18	6
Unit 6	Spray Coating Applications III	36	22	14
Level 3 Industrial Total		**240**	**139**	**101**
Level 3 Commercial/Residential				
Unit 1	Workplace Health & Safety III	66	33	33
Unit 2	Trade Calculations & Science III	57	36	21
Unit 3	Tools & Equipment III	12	9	3
Unit 4	Surface Preparation IV	21	13	8
Unit 5	Coating Applications II	39	15	24
Unit 6	Spray Coating Applications II	21	9	12
Unit 7	Wall Covering IV	24	7	17
Level 3 Commercial/Residential Total		**240**	**122**	**118**
Totals		**960**	**546**	**414**

Level 1

Common Core

Summary Of Total In-School Training Hours Level 1 Common Core

Number	Reportable Subjects	Hours Total	Hours Theory	Hours Practical
Unit 1	Workplace Health & Safety I	66	49	17
Unit 2	Trade Calculations & Science I	42	36	6
Unit 3	Tools & Equipment I	24	21	3
Unit 4	Surface Preparation I	45	9	36
Unit 5	Coating Applications I	42	12	30
Unit 6	Wall Covering I	21	6	15
Level 1 Common Core Total		**240**	**133**	**107**

Number:	Unit 1.1		
Title:	**Workplace Health & Safety I**		
Duration:	Total Hours: 66	Theory: 49	Practical: 17
Prerequisites:	None		
Co-requisites:	None		

Cross-reference to Learning Outcomes: 1471.0, .01, .03 - .12; 1472.0, .03, .04; 1473.0, .01, .03, .05; 1477.0, .01, .02; 1478.0, .04, .05

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to protect self and others.

Learning Outcomes

Upon successful completion, the apprentice is able to:

1.1.1 State the function of employers, trade associations and organized labour, and the importance of the apprenticeship program.

1.1.2 Identify legislation related to the trade of painter decorator.

1.1.3 Explain the role of training in the trade of painter decorator.

1.1.4 Use the specialized terminology of the painter decorator trade.

1.1.5 Explain customer relation practices.

1.1.6 Describe the steps to follow to determine work place schedules and work plans.

1.1.7 Explain the reasons for consulting with other trades at a work place.

1.1.8 Describe the procedures to follow to ensure proper ventilation for a workplace.

1.1.9 Select and use respirators.

1.1.10 Use personal protective equipment and apparel in accordance with the OHSA

1.1.11 Explain how to prevent and respond to fires.

1.1.12 Practice good housekeeping in the workplace.

1.1.13 Minimize strain by using safe lifting and carrying techniques.

1.1.14 Explain how to complete safety-related forms.

1.1.15 Explain the process followed to report work place hazards.

1.1.16 Work with thinners, solvents, and cleaners in accordance with relevant legislation.

1.1.17 Explain the dangers associated with designated substances.

1.1.18 Follow procedures to protect self and others when using ladders, scaffolding and powered elevating work platforms.

1.1.19 Use fall protection devices.

Learning Content

1.1.1 State the function of employers, trade associations and organized labour, and the importance of the apprenticeship program.
[1.5/0]

- outline the responsibilities of employers
- list trade associations relevant to the trade of painter decorator
- outline the responsibilities of organized labour
- describe the process and stages of apprenticeship
- explain the roles and responsibilities of an apprentice
- explain the rights of an apprentice

1.1.2 Identify legislation related to the trade of painter decorator.
[2/0]

- outline the scope and purpose of the Employment Standards Act
- outline the scope and purpose of the Trades Qualification and Apprenticeship Act
- outline the scope and purpose of other work-related legislation, such as the Employment Insurance Act

1.1.3 Explain the role of training in the trade of painter decorator.
[2/0]

- describe the importance of continuous training
- identify areas in which on-going training will be useful to a painter decorator, including safety, equipment, new products and techniques
- identify trade-related publications suitable for use in independent updating and awareness

1.1.4 Use the specialized terminology of the painter decorator trade.
[2/0]

- define terms common to the trade of painter decorator
- use terms recognized by the trade of painter decorator to communicate effectively with others

1.1.5 Explain customer relation practices.
[1.5/0]

- describe appropriate appearance and language for work sites
- list items on which customer and other professions should be consulted
- explain how to discuss problems in a tactful manner
- describe how to “sell” him/herself to supervisors, clients, co-workers, and workers in other trades
- explain the importance of customer relations
- identify problems to refer to the supervisor

1.1.6 Describe the steps to determine work place schedules and work plans.
[1/0]

- describe the role of the supervisor in communicating with workers about job schedules and work place organization
- identify key points to determine job schedules and work place organization
- explain the importance of determining the location of the shop, identified hazards and coordinating clean-up
- recognize the chain of communication on a work site
- listen carefully to instructions and seek clarification if required

1.1.7 Explain the reasons for consulting with other trades at a work place.
[1/0]

- identify other trades typically found at a work place
- explain the importance of coordinating work schedules
- identify equipment which might be shared between trades
- describe how to emphasize to other trades the importance of protecting finished work
- identify the procedures to report unresolved problems with other trades

1.1.8 Describe the procedures to follow to ensure proper ventilation for a workplace.
[6/0]

- identify workplace ventilation methods
- explain how to create ventilation which would remove hazardous particles and vapours
- list percentage of content of the major elements that make up air
- identify appropriate steps to follow to have the air in a workplace tested
- identify the appropriate Ministry of Environment official to notify for air testing
- explain what is meant by “oxygen deficient and enriched atmospheres” and its potential effects
- define the term “respirable air” and explain CSA requirements for respirable air
- explain and list examples of gas and vapour contaminants and the four types of particulate contaminants including dust, fumes, mist and fibres

1.1.9 Select and use respirators.
[6/1]

- describe the colour codes, purpose and working principles of air purifying filters such as cartridges and canisters, including HEPA filters
- explain respirator selection for specific job applications
- demonstrate the visual inspection procedures to follow for APR & PAPR
- explain the designation “assigned protection factor” and list these factors for the various types of respirators
- describe how administrative and engineering controls, hazard assessment and location, respirator capabilities and limitations, and time and specific work activity affect respiratory selection criteria
- demonstrate donning and doffing of various face pieces.

- describe how to maintain respiratory equipment such as mouth piece, single use, half- face piece, full face piece, power-assisted air purifying, etc.
- demonstrate the positive and negative pressure respirator field checks
- explain the requirements of respirator smoke testing
- describe how a respiratory protection program works
- identify the restrictions and limitations that must be considered by respirator users and supervisors, including facial hair, eye glasses, contact lenses, fogging, communications, physiological effects, etc.

1.1.10 Use personal protective equipment and apparel in accordance with the OHSA.
[6/0]

- locate and explain sections of the OHSA which apply to personal protective equipment and apparel
- list the items an employer is responsible for providing
- list the items an employee is responsible for providing
- list personal protective equipment and apparel required to work safely as a painter and decorator
- describe selection of personal protective equipment and apparel for specific tasks, including safety glasses, protective gloves, disposable suits, chemical-resistant boots, goggles, ear plugs, hard hat, safety harness and belts, and safety boots
- explain the use of safety equipment and apparel in accordance with manufacturer’s recommendations and the OHSA

1.1.11 Explain how to prevent and respond to fires.
[2/0]

- define class A, B, C and D fires
- identify the appropriate fire equipment to use for each class of fire
- describe fire prevention methods
- describe fire directives and procedures

1.1.12 Practice good housekeeping in the workplace.
[1/2]

- identify dangers in the workplace caused by poor housekeeping
- maintain travel and pathways unobstructed
- safely dispose of rags with solvent
- safely dispose of drop sheets
- organize equipment and materials to ensure safe work

1.1.13 Minimize strain by using safe lifting and carrying techniques.
[1/1]

- identify lifting techniques likely cause injury or strain
- describe safe and healthy lifting techniques
- bend through the legs when lifting
- carry materials so that strain is minimized and injuries avoided
- seek assistance from a second person for heavy loads

1.1.14 Explain how to complete safety-related forms.
[1/0]

- list safety-related forms a worker may have to complete
- identify information required to complete safety-related forms
- explain the purpose of safety-related reports
- complete a sample form

1.1.15 Explain the process followed to report work place hazards.
[2/0]

- list reportable work place hazards
- identify and explain relevant portions of the OHSA
- explain an employee’s right to refuse
- outline the reporting structure for a work site
- identify forms/methods used to report hazards
- list procedures to follow to correct work place hazards

1.1.16 Work with thinners, solvents, and cleaners in accordance with relevant legislation.
[1/2]

- list the potential hazards of working with thinners, solvents and cleaners and hazardous waste
- locate relevant MSDS for thinners, solvents, and cleaners
- read and interpret MSDS for thinners, solvents and cleaners
- identify other sources of information on the effects of workplace hazardous materials
- describe the importance of the Environment Protection Act
- explain the long-term effects of exposure to thinners, solvents and cleaners
- choose the thinner, solvent, or cleaner appropriate to the task at hand
- demonstrate procedures for safe handling, application, and storage of thinners, solvents and cleaners

1.1.17 Explain the dangers associated with designated substances.
[3/0]

- locate and read relevant section(s) of the OHSA
- explain the legislated procedures regulated by the Ministry of Labour
- identify the dangers associated with lead, formaldehyde, silica and asbestos
- outline the steps and procedures of a control plan for designated substances

1.1.18 Follow procedures to protect self and others when using ladders, scaffolding and powered elevating work platforms.
[6/9]

Ladders:

- locate and read relevant section(s) of the OHSA
- select the appropriate ladder for a given task
- inspect ladder for defects before, during, and after use
- position ladder for required height and correct angle
- tie off ladder as required
- assure three-point contact at all times
- carry only appropriate loads
- use required fall-arrest harness
- avoid obstructions
- clean ladder after use
- report defects as required
- store ladders safely

Scaffolds:

- read job specifications and determine size of scaffold required
- list types of scaffolds – pipe, tube and clamp
- read manufacturers' instructions
- describe characteristics of damaged parts
- describe how to erect scaffolds to a maximum of three sections
- explain how to check for correct safety-pinning and cross-bracing
- identify when an engineered scaffold is required
- identify tie-off requirements
- wear safety harness

Powered elevating work platforms:

- Identify scissor lifts, boom lifts and other elevating work platforms
- Describe and demonstrate work platform applications
- Identify self-propelled or push around platforms
- Explain major hazards when using platforms
- Describe inspection procedures for platforms
- Outline maintenance requirements for platforms

1.1.19 Use fall protection devices.
[3/2]

- explain the requirements for a fall protection plan and safety monitor
- explain the term “Control Zone”
- describe the regulations governing safety nets, lifelines and lanyards, safety harness and fall-arresting and shock-absorbing devices
- demonstrate inspection, maintenance and cleaning procedures for webbing, buckles, rope and hardware

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
75%	25%	100%

Number:	Unit 1.2		
Title:	**Trade Calculations & Science I**		
Duration:	Total Hours: 42	Theory: 36	Practical: 6
Prerequisites:	None		
Co-requisites:	None		

Cross-reference to Learning Outcomes: 1472.0, .01, .02, .05, .06; 1475.0, .03; 1476.0, .05; 1477.0, .06, .08, .11

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to apply basic arithmetic, science principles and computers to perform common tasks.

Learning Outcomes

Upon successful completion, the apprentice is able to:

1.2.1 Perform basic arithmetical operations.

1.2.2 Solve trade-related problems using tools suited to the task.

1.2.3 Describe the physical properties of substances and materials used in the painter decorator trade.

1.2.4 Use a computer to perform common tasks.

Learning Content

1.2.1 Perform basic arithmetic calculations.
[6/0]

- add, subtract, multiply and divide whole numbers
- add, subtract, multiply and divide decimals
- add, subtract, multiply and divide fractions and mixed numbers
- change decimals to fractions
- change fractions to decimals
- change fractions and decimals to percentages
- use the laws of power when adding, subtracting, multiplying and dividing

1.2.2 Solve trade-related problems using tools suited to the task.
[12/0]

- calculate areas and volumes of different shapes (rectangular, circular, elliptical and triangular) using a basic calculator
- calculate percentages, ratio and proportion, and square roots using basic calculator
- use the Imperial System and the Système Internationale (S.I.)
- calculate the time and material required to complete a job
- define the liquid measures used in the trade

1.2.3 Describe the physical properties of coatings used in the painter decorator trade.
[18/0]

- describe the history and geography of coatings
- describe types and applications of paint media
- describe the composition of paint content
  - vehicles
  - binders
  - pigments
  - dyes
  - dryers
- define opacity, coverage and transparency of coatings

1.2.4 Use a computer to perform common tasks.
[0/6]

- open, save, and organize computer files
- use word processing software to create simple documents
- use an internet browser
- access a variety of computer applications

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
86%	14%	100%

Number:	Unit 1.3		
Title:	**Tools & Equipment I**		
Duration:	Total Hours: 24	Theory: 21	Practical: 3
Prerequisites:	Workplace Health & Safety		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1473.0, .04			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to use and maintain hand tools as well as explaining the use and maintenance of tools, brushes, rollers, materials and tools specific for wall covering.

Learning Outcomes

Upon successful completion, the apprentice is able to:

1.3.1 Use and maintain hand tools in accordance with manufacturer's instructions.

1.3.2 Explain the use and maintenance of brushes, rollers and other types of applicators.

1.3.3 Explain the use and maintenance of construction hand tools and materials.

1.3.4 Explain the use and maintenance of wall covering tools and equipment.

Learning Content

1.3.1 Use and maintain hand tools in accordance with manufacturer's instructions. [6/3]

- describe hand tools - scrapers, pole sanders, extension poles, knives, brushes, rollers, chalk lines, wrenches, caulking guns, etc.
- explain the impact of tool selection and maintenance on job cost
- select the appropriate hand tool for a specific task
- read manufacturer's instructions
- use hand tools to complete an assigned task
- clean hand tools
- inspect hand tools for damage
- perform routine maintenance as required for hand tools

1.3.2 Explain the use and maintenance of brushes, rollers and other types of applicators.
[6/0]

- identify pure bristle and synthetic brushes
- identify different types of roller sleeves and roller handles
- identify the different types of applicators
- describe the care and maintenance of brushes, rollers and other types of applicators
- explain the selection of brushes, rollers and other types of applicators for a specific task
- outline the use of brushes, rollers and other types of applicator to apply coatings

1.3.3 Explain the use and maintenance of construction hand tools and materials.
[6/0]

- identify hand tools - wire brushes, sanding poles, sanding pads, graining combs, chalk lines, hammers and mallets, screw drivers, pliers, palette knives, dusters, measuring devices, levels, plumb bob, square, straight edges, compasses and dividers, templates, stencils, film thickness gauges
- identify preparation tools - putty knives, broad knives, scrapers and trowels
- identify cutting tools - shears, stencil knives, utility knives and razor knives
- describe the care and maintenance of hand, preparation and cutting tools
- explain the selection of hand, preparation and cutting tools
- outline the use of hand, preparation and cutting tools
- describe the selection, use and maintenance of sundries - rags, funnels, nylon and cheese cloths, screens, etc.
- describe the use and application methods of masking tape and specialty tapes

1.3.4 Explain the use and maintenance of wall covering tools and equipment.
[3/0]

- list tools used to install wall coverings
- identify equipment used to install wall coverings
- describe the use of tools and equipment for installations
- explain the selection of tools and equipment
- outline the maintenance of wall covering tools and equipment

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
86%	14%	100%

Number:	Unit 1.4		
Title:	**Surface Preparation I**		
Duration:	Total Hours: 45	Theory: 9	Practical: 36
Prerequisites:	Workplace Health & Safety I, Trade Calculations & Science I, Tools & Equipment I		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1474.0, .05, .06; 1475.0, .02; 1476.0, .02, .03			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to prepare substrates for applications by assessing, repairing, patching and describing how to prepare glass and tile surfaces.

Learning Outcomes

Upon successful completion, the apprentice is able to:

1.4.1 Assess and repair substrates for coating application.

1.4.2 Describe how to prepare glass and tile surfaces in accordance with manufacturers' instructions.

1.4.3 Prepare a substrate by patching defects.

1.4.4 Prepare surfaces for the application of wall coverings.

Learning Content

1.4.1 Assess and repair substrates for coating application.
[3/3]

- identify substrate
- explain assessment procedures to determine repair method
- outline work plan for preparation and repair
- prepare substrate for repair procedures by cleaning, sanding or removal processes
- complete repairs using sealers and fillers
- assess completed repairs

1.4.2 Describe how to prepare glass and tile surfaces in accordance with manufacturers' instructions.
[1/0]

- read manufacturer's instructions
- identify appropriate personal protective equipment
- describe how to clean surfaces, e.g. chemicals, water-blasting, or using a brush
- describe how to prepare surfaces, e.g., using a primer
- list safety procedures to protect self and others

1.4.3 Prepare a substrate by patching defects.
[1/3]

- identify defects to be patched
- choose patching material specific to the task
- select the appropriate tool for patching procedure
- clean and prime area for patching material or compound
- fill area
- apply additional fill if required
- sand, and prime as required

1.4.4 Prepare surfaces for the application of wall coverings.
[4/30]

- evaluate condition of substrate
- determine whether patching is required
- patch and sand if necessary
- apply appropriate sealer following manufacturers' specifications
- select and apply sizing or priming as required
- explain how to assess removal of existing wall covering
- describe how to perform test patch on wall covering substrate
- describe situations where existing wall covering should not be removed
- identify tools and equipment appropriate to the specific task (e.g., scrapers, perforators, strippers, etc.)
- use tools and equipment to remove old wall coverings, including sprayer, steamer, sponge, roller, scraper, perforator, etc.
- evaluate the condition of the substrate
- wash substrate with water and detergent to remove glue
- apply appropriate sealer following manufacturers' specifications
- make repairs as required (patch seams, sand, spot priming)
- apply primer or sizing over the entire surface

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
20%	80%	100%

Number:	Unit 1.5		
Title:	**Coating Applications I**		
Duration:	Total Hours: 42	Theory: 12	Practical: 30
Prerequisites:	Workplace Health & Safety I, Trade Calculations & Science I, Tools & Equipment I, Surface Preparation I		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1475.0, .01, .04 - .06, .08			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to apply coatings and basic decorative finishes using paint technology, brushes, rollers and tools.

Learning Outcomes

Upon successful completion, the apprentice is able to:

1.5.1 Describe basic paint technology and the applications of a variety of media and materials.

1.5.2 Prepare a job by protecting items not to be painted.

1.5.3 Apply paint by brush on walls, ceilings, window frames, door frames, and hard to access places.

1.5.4 Maintain brushes in an effective condition.

1.5.5 Apply paint by roller.

1.5.6 Maintain roller sleeve in an effective condition.

1.5.7 Apply basic decorative finishes.

Learning Content

1.5.1 Describe basic paint technology and the applications of a variety of media and materials.
[1/0]

- identify and describe media and materials suited to specific applications
  - water-and solvent-borne paints
- describe the chemical properties of materials:
  - oxidation and polymerization
  - effects of dryers in paint
  - thinners, solvents and dilutants
  - varnishes and lacquers, insoluble and reversible films

1.5.2 Prepare a job by protecting items not to be painted.
[1/1]

- identify items to be protected (floors, trims, furniture, sprinkler heads, exit signs, machinery)
- choose an appropriate protective material (e.g., plastic, drop sheets, paper, masking tape)
- mask required areas of job
- ensure protection is complete

1.5.3 Apply paint by brush on walls, ceilings, window frames, door frames, and hard to access places.
[6/11]

- demonstrate the use of effective brushing techniques
- list the characteristics of a good quality brush

Walls:

- choose a brush specific to the task
- ensure sufficient light in painting environment
- determine starting point
- frame the wall, keeping a wet edge
- ensure brush is full of paint
- apply in even strokes

Window and door frames:

- paint insides first
- paint faces second
- lay paint on to cover
- lay paint off in single strokes end to end

Door frames:

- paint top and bottom edges first
- cut in side edges and face
- lay paint on and lay paint off in long, even strokes

Hard to access places:

- select and use appropriate brush (e.g., radiator brush)
- inspect work for deficiencies
- back prime uninstalled mill work

1.5.4 Maintain brushes in an effective condition.
[0/1]

- clean and wash after each job in appropriate solvent
- use a brush comb and a spinner to clean brushes
- explain how to protect brushes for long storage

1.5.5 Apply paint by roller.
[1/2]

- choose an appropriate roller handle and sleeve for a specific task
- choose an appropriate paint tray for a specific task
- condition a new roller sleeve prior to first use
- roll in flat areas to lay on paint, keeping a wet edge and paint tray level
- back roll with a semi-wet roller sleeve to achieve a uniform finish
- inspect work to locate deficiencies

1.5.6 Maintain roller sleeve in an effective condition.
[0/1]

- clean and wash after each job in appropriate solvent
- use a spinner to clean roller sleeves
- explain how to protect roller sleeves for long storage

1.5.7 Apply basic decorative finishes.
[3/14]

- describe techniques used to apply basic decorative finishes
- choose an appropriate method of applying basic decorative finishes (e.g., negative and positive effects)
- use tools specific to the task
- use a variety of techniques to apply basic decorative finishes (e.g., basic graining, stippling, sponging, ragging, etc.)

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
30%	70%	100%

Number:	Unit 1.6		
Title:	**Wall Covering I**		
Duration:	Total Hours: 21	Theory: 6	Practical: 15
Prerequisites:	None		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1476.0, .01, .04 - .11			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to apply commercial vinyl wall covering.

Learning Outcomes

Upon successful completion, the apprentice is able to:

1.6.1 Describe the applications for commercial vinyl wall covering.

1.6.2 Apply commercial vinyl wall covering on straight walls.

1.6.3 Cut and trim commercial vinyl wall covering.

Learning Content

1.6.1 Describe the applications for commercial vinyl wall covering.
[3/0]

- describe layout procedures for basic application
- explain measuring techniques for the basic application
- identify the adhesives required for commercial vinyl wall covering
- identify the procedures for basic application on straight walls
- identify the specific tools required for application
- outline the basic application procedures for commercial vinyl wall covering

1.6.2 Apply commercial vinyl wall covering on straight walls.
[2/9]

- explain the application procedure
- measure the area of application
- layout a basic application on a straight wall
- cut materials to size for a basic application
- calculate the number of strips needed
- select and apply the appropriate adhesive for dry hanging
- dry hang the vinyl
- assess the application

1.6.3 Cut and trim commercial vinyl wall covering.
[1/6]

- Describe the cutting and trimming procedure
- Select the appropriate tool (e.g., cutting tools, straight edges)
- Trim top and bottom edges where needed
- Clean the edges as required
- Double cut vinyl
- Ensure both edges glued
- Finish the butt joint
- Clean joints if necessary
- Assess the cutting procedure

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
30%	70%	100%

Level 2

Common Core

Summary Of Total In-School Training Hours Level 2 Common Core

Number	Reportable Subjects	Hours Total	Hours Theory	Hours Practical
Unit 1	Workplace Health & Safety II	60	53	7
Unit 2	Trade Calculations & Science II	27	21	6
Unit 3	Tools & Equipment II	15	15	0
Unit 4	Surface Preparation II	42	21	21
Unit 5	Coating Applications II	54	30	24
Unit 6	Spray Coating Applications I	18	6	12
Unit 7	Wall Covering II	24	6	18
Level 2 Common Core Total		**240**	**152**	**88**

Number:	Unit 2.1		
Title:	**Workplace Health & Safety II**		
Duration:	Total Hours: 60	Theory: 53	Practical: 7
Prerequisites:	Workplace Health & Safety I		
Co-requisites:	None		

Cross-reference to Learning Outcomes: 1471.0, .02, .03, .05, .07, .14; 1477.0, .02; 1478.0, .08

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to protect self and others while working in a confined space and explaining the procedures for working with platforms, staging, suspended access and lead.

Learning Outcomes

Upon successful completion, the apprentice is able to:

2.1.1 Use barrier creams to protect his/her skin.

2.1.2 Follow the procedures to work in a confined space.

2.1.3 Explain the dangers associated with lead and procedures for lead abatement.

2.1.4 Follow procedures to protect self and others when using platforms, staging and suspended access.

Learning Content

2.1.1 Use barrier creams to protect his/her skin.
[1/1]

- identify suitable barrier creams
- explain how barrier creams protect skin
- apply barrier creams to prevent skin damage caused by chemical hazards
- remove barrier creams, using water
- explain employer’s responsibility to provide barrier creams

2.1.2 Follow the procedures to work in a confined space.
[16/0]

- recognize a confined space
- list the hazards of working in a confined space, including oxygen deficiency, the presence of air contaminants, and gas and vapour
- describe the responsibilities of workers and employers in confined space work
- explain how to document and report confined space work
- list kinds of equipment used to ventilate confined spaces
- describe how to use safety lines to communicate in confined spaces
- read labels identifying the dangers of confined spaces
- identify the chain of command for work in a confined space

2.1.3 Explain the dangers associated with lead and procedures for lead abatement.
[18/0]

- outline the history of the use of lead in paint, including its useful properties, its dangers, and its ban
- describe the effects of lead on the health of the human body, from foetus to adulthood
- list methods used to protect self and others from exposure to lead, including the use of personal protective equipment
- list the sources, applications and characteristics of lead-based paint and the impact on health of over-exposure, repeated exposure, secondary exposure, and lead poisoning
- describe Threshold Limit Value (TLV), the danger of smoking and lead exposure, and methylene chloride as it relates to lead-based paint abatement work
- list the factors to consider in project planning and preparation for lead abatement work
- explain the need for medical monitoring and surveillance
- explain how to use and maintain tools used in lead abatement projects, including hammers, chisels, scrapers, drills, saws, screwguns, grinders, electrical shears, ladders, etc.
- explain how to use and maintain pressure systems, pressure sprayers, and HEPA equipment on lead abatement projects

2.1.4 Follow procedures to protect self and others when using platforms, staging and suspended access.
[18/6]

- wear safety harness
- identify overhang of beam
- determine weight
- describe tie back methods
- inspect equipment and lines for safety
- explain and follow procedures for safe use of platforms and stages
- recognize, select and install suspended access equipment and support systems
- explain public and overhead protection
- outline task analysis, procedures and standards for suspended access

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
88%	12%	100%

Number:	Unit 2.2		
Title:	**Trade Calculations & Science II**		
Duration:	Total Hours: 27	Theory: 21	Practical: 6
Prerequisites:	None		
Co-requisites:	None		

Cross-reference to Learning Outcomes: 1472.0, .01, .02; 1476.0, .04, .05; 1477.06, .08, .11; 1478.0, .03, .06, .07

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to apply liquid property principles, knowledge of architectural drawings and computers to perform workplace tasks.

Learning Outcomes

Upon successful completion, the apprentice is able to:

2.2.1 Explain the properties of liquids used in the painter decorator trade.

2.2.2 Outline architectural drawings.

2.2.3 Use computer applications to perform workplace tasks.

Learning Content

2.2.1 Explain the properties of liquids used in the painter decorator trade. [9/0]

- explain the spreading capacity of water and solvent borne paints and primers when using various application methods
- explain the principles of viscosity and gravity to the formulation of surface coatings using, for example, a viscous cup and hydrometer

2.2.2 Outline architectural drawings.
[12/0]

- identify the alphabet of lines, notes and title blocks
- read simple production drawings
- interpret the symbols commonly used to identify materials, plan, plumbing, electrical components, heating and ventilation
- identify abbreviations commonly used on plans
- identify the basic components of three-elevation drawings and projections
- interpret title-block information
- identify the types of drawings of floor, sections, elevations, roof plans, reflected plans and detail

2.2.3 Use computer applications to perform workplace tasks.
[0/6]

- perform calculations and functions using software programs
- manage files, directories and document
- edit files and manage toolbars/functions
- print resource and work files

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
78%	22%	100%

Number:	Unit 2.3		
Title:	**Tools & Equipment II**		
Duration:	Total Hours: 15	Theory: 15	Practical: 0
Prerequisites:	Tools & Equipment I		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1471.0, .03; 1472.0, .05, .06; 1473.0, .04			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to explain the use and maintenance of power tools, power equipment and testing equipment.

Learning Outcomes

Upon successful completion, the apprentice is able to:

2.3.1 Explain the use and maintenance of power tools and equipment.

2.3.2 Explain the use and maintenance of trade specific equipment.

2.3.3 Explain how to operate testing equipment.

Learning Content

2.3.1 Explain the use and maintenance of power tools and equipment.
[8/0]

- identify power tools and equipment, such as grinders, needle scaler and guns, compressors, drills with paddle, spray equipment (hoses, whip checks and lighting)
- describe the use and application of power tools and equipment
- outline the use and maintenance of general equipment, such as masking machine, paper pasting machines, paint stainers, etc.

2.3.2 Explain the use and maintenance of trade specific equipment.
[4/0]

- identify and describe the uses and maintenance of sling psychrometer, surface temp. (thermometer), after coolers, moisture separators (filter or cyclone types of coalescing filters), receiver desiccant tanks and air dryers.
- identify and describe the uses and maintenance of fans, air horns, dust collectors, dehumidification equipment, lighting (explosion proof) after coolers

2.3.3 Explain how to operate testing equipment.
[3/0]

- describe the methods of using a moisture meter to test wood
- identify and explain the use of equipment for testing finished surfaces, including nozzle orifice gage, hypodermic pressure gage, surface preparation comparator, surface profile comparator, thickness gage and tester comparator tape, wet and dry film gauge, Tooke gauge, holiday detector, and high voltage adhesion testers

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
100%	0%	100%

Number:	Unit 2.4		
Title:	**Surface Preparation II**		
Duration:	Total Hours: 42	Theory: 21	Practical: 21
Prerequisites:	Surface Preparation I		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1474.0, .01 - .04; 1477.0, .11			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to prepare a variety of surfaces for coating applications as well as explaining the preparation techniques for metal surfaces.

Learning Outcomes

Upon successful completion, the apprentice is able to:

2.4.1 Describe structures and building materials.

2.4.2 Prepare gypsum board and plaster surfaces for painting.

2.4.3 Prepare new and previously coated interior and exterior wood surfaces.

2.4.4 Explain how to prepare new and previously coated interior and exterior metal surfaces.

2.4.5 Prepare concrete and masonry surfaces in accordance with manufacturer's instructions and job specifications.

Learning Content

2.4.1 Describe structures and building materials.
[3/0]

- identify structural slab and describe its characteristics
- describe various types and properties of walls (e.g., brick, stone, masonry, concrete block drywall, plywood, poured concrete, etc.)
- describe various types of ceilings (flat, dome, and cathedral) requiring flat, curved and angular work, and list their basic construction features
- describe various types of stairs (spiral, platform, pre-cast, and straight) constructed of concrete, wood and steel, and their basic construction features

2.4.2 Prepare gypsum board and plaster surfaces for painting. [3/6]

- assess substrate
- neutralize the surface
- identify cracks, holes, hot spots and make necessary repairs
- fill or seal previously painted or papered plaster
- select, mix and apply filling and spackling compounds
- tape and fill joints
- describe how to remove stains and calcimine
- remove existing wall covering and paint as required
- sand and seal previously treated surfaces
- explain how to prepare chemically and fire-damaged surfaces
- check for surface porosity
- select suitable primer/sealer specific to task
- explain why primer and sealer are tinted on the job
- apply primer and sealer using appropriate tools, e.g., brush, roller or spray
- sand between coats

2.4.3 Prepare new and previously coated interior and exterior wood surfaces. [9/6]

- interpret job specifications
- describe how to check for moisture content and absorption qualities
- explain the concepts of grade and grain as applied to wood
- check for wood characteristics affecting application of finishes
- identify any problems with existing coating
- remove any existing coating of paint or stain, wax or polish and all foreign matter, using the appropriate technique (e.g., sanding, dusting, washing)
- use gels and liquid-flows from surfaces (do not use stripping agents with methylene chloride)
- select required tools, equipment and materials
- prime bare wood
- treat knots and sap for a clear coating, using primer, sealers and filling as required
- treat mildew and bleeding stains
- pre-treat as required by filling, staining putty, wiping, rubbing, bleaching and colouring
- prepare and apply primer and sealers as required
- apply stain
- equalize absorption

- apply intermediate and barrier coats, allowing sufficient drying time
- sand, dust and apply materials as required between coats
- determine the required number of coats
- read and follow manufacturers' instructions for materials and tools

2.4.4 Explain how to prepare new and previously coated interior and exterior metal surfaces.
[3/3]

- interpret job specifications
- identify the material
- determine whether the material is ferrous or non-ferrous
- explain how to select and use a tool suitable to the task to remove mill scale, rust and corrosion as necessary, e.g., grinding wheel, wire brush, sanding disc, grinder, sand paper and hammer and chisel
- list cleaning methods suitable to the assigned task (e.g., chemical, emulsion, blasting)
- identify personal protective equipment required for cleaning metal surfaces
- explain how to use cleaning equipment in accordance with manufacturer's instructions
- describe how to prepare and apply primer as required, choosing tools and materials appropriate to the assigned task
- protect against hazards

2.4.5 Prepare concrete and masonry surfaces in accordance with manufacturer's instructions and job specifications.
[3/6]

- interpret job specifications
- determine required finish and number of coats
- read manufacturer's instructions for tools and materials required for task
- use personal protective equipment
- clean and neutralize the surface, using techniques specific to the task such as acid- etching
- explain how to perform moisture tests
- repair cracks, pointing, and stopping
- describe how to use cleaning techniques and materials to remove fungi and efflorescence, such as washing with bleach or muriatic acid
- explain the dangers of working with acids
- prepare and apply primer specific to the task using appropriate tools, equipment and materials

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
50%	50%	100%

Number:	Unit 2.5		
Title:	**Coating Applications II**		
Duration:	Total Hours: 54	Theory: 30	Practical: 24
Prerequisites:	Coating Applications I		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1475.0, .03, .05 - .08			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to apply finishes to substrates using colour theory, a variety of coatings, colour effects and decorative patterns.

Learning Outcomes

Upon successful completion, the apprentice is able to:

2.5.1 Explain basic paint technology and the applications of a variety of media and materials.

2.5.2 Describe the characteristics of pigments and dyes (inert, organic, inorganic).

2.5.3 Match colours using tints.

2.5.4 Finish new wood surfaces.

2.5.5 Finish previously primed substrates or surfaces.

2.5.6 Use colour to create desired effects.

2.5.7 Apply decorative patterns in accordance with blueprints and specifications.

Learning Content

2.5.1 Explain basic paint technology and the applications of a variety of media and materials.
[12/0]

- explain the chemical properties of materials:
  - oxidation and polymerization
  - effects of dryers in paint
  - thinners, solvents and dilutants
  - varnishes and lacquers, insoluble and reversible films
  - inflammability and fumes
  - water solutions and fire-retardant pigments
- identify appropriate products for specific jobs, taking into account such factors as effect of illumination on colour, durability of whole product, degree of light factors and tinting strength

2.5.2 Describe the characteristics of pigments and dyes (inert, organic, inorganic).
[3/0]

- explain the use of extenders
- explain the concepts of pigment strength and purity
- identify the uses of hiding and tinting powders
- describe the characteristics of pigment and dyes, including oil absorption, durability, and colour retention
- explain their use in preserving wood and steel
- describe their reaction to different light sources such as natural and artificial light
- list the toxic effects of pigments and dyes

2.5.3 Match colours using tints.
[3/0]

- explain the theory of colour and its impression as visible waves of light
- explain the effect of colour on different surfaces
- describe the use of the Munsell and Ostwald colour system
- explain the characteristics of colour including hue, value, chroma, tints and tones
- demonstrate the mixing and matching of colours to produce harmony for schemes such as monochromatic, analogous or related, true and split complementary and triadic
- describe computer-based and manual designing of paint mixtures
- consult a colour wheel or manufacturer’s chart
- use terminology to explain colour theory

- mix required colours, using either a stir stick or drill paddle
- draw down paint on a pallet
- box paint (mixing)
- check resultant mixture against specifications
- explain the importance of sign off on the resultant colour by customer
- explain the effect of light on tint

2.5.4 Finish new wood surfaces.
[3/6]

- list methods used to finish new wood surfaces
- choose a method to finish a particular surface
- back prime wood surface
- apply a final finish of stain by brushing, wiping or spraying and rolling in the correct directions
- respect dry times following manufacturer’s instructions
- check porosity and apply wood filler and tinting as required
- apply a finish (e.g., oil, shellac, wax, lacquer, varnish or urethane)
- seal wood surface with clear sanding sealer
- sand or abrade with an appropriate abrasive
- wipe with tack cloth
- wipe with the grain
- apply finish coat
- dull and wipe
- apply additional coats if necessary
- inspect work to locate deficiencies

2.5.5 Finish previously primed substrates or surfaces.
[3/6]

- assess the primed substrates (e.g., wood, metal and masonry surfaces)
- identify types of finish coats required for substrate
- select tools, equipment and materials for application of finish coats
- apply appropriate finish coats including various sheens

2.5.6 Use colour to create desired effects.
[3/3]

- use colour to shape an area
- create effects through the use of colour, including advancing, receding, warming, and cooling
- create optical illusion through the use of colour
- explain the negative effect of discord

2.5.7 Apply decorative patterns in accordance with blueprints and specifications. [3/9]

- refer to blueprints and specifications to determine requirements for decorative patterns
- choose an appropriate method of applying decorative patterns based on job specifications (wood graining, marbleizing)
- use tools specific to the task (masking tape, edging tape, graphic tape, chalk line, straight edge, level, brushes, rollers, etc.)
- use a variety of techniques to apply faux finishes (e.g., wood graining, marbleizing)

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
55%	45%	100%

Number:	Unit 2.6		
Title:	**Spray Coating Applications I**		
Duration:	Total Hours: 18	Theory: 6	Practical: 12
Prerequisites:	Workplace Health & Safety II, Trade Calculations & Science II, Tools & Equipment II, Surface Preparation II, Coating Applications II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1478.0, .01 - .03			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to operate airless spraying equipment to apply coatings to a surface.

Learning Outcomes

Upon successful completion, the apprentice is able to:

2.6.1 Prepare the job, according to plans and specifications.

2.6.2 Prepare surfaces for spray painting.

2.6.3 Operate airless spraying equipment for applications in accordance with job specifications and manufacturer's instructions.

Learning Content

2.6.1 Prepare the job, according to plans and specifications.
[3/3]

- read plans and specifications
- identify items/areas requiring protection (e.g., floors, trim, furniture, sprinkler heads, exit signs, machinery, etc.)
- choose a covering method suitable to the specific job and item to be protected (e.g., plastic, drop sheets, building paper, masking tape, etc.)
- set-up tools, equipment and materials required for preparation and application
- mask and cover required areas

2.6.2 Prepare surfaces for spray painting.
[1/3]

- read job specifications
- choose appropriate method for removing coverings, foreign objects or debris from surface (e.g., chemical cleaning, sandblasting, hand-tool cleaning)
- prepare surface for spray coating application
- protect self and others by following safety precautions

2.6.3 Operate airless spraying equipment for applications in accordance with job specifications and manufacturer's instructions.
[2/6]

- read specifications and manufacturer's instructions
- inspect equipment to ensure it is in safe working condition
- select spraying equipment specific to the job specifications (e.g., unit size, hose length and diameter, tip size, etc.)
- wear required personal protective equipment, including spray hood, impermeable coveralls, gloves with related liners or liquid glove
- ensure proper grounding of equipment
- explain effective spraying techniques for airless equipment
- apply spray coatings using airless equipment
- assess spray application
- use all spraying equipment safely and according to manufacturer's instructions to achieve finish specified in job specifications

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
35%	65%	100%

Number:	Unit 2.7		
Title:	**Wall Covering II**		
Duration:	Total Hours: 24	Theory: 6	Practical: 18
Prerequisites:	Wall Covering I		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1476.0, .01, .04 - .11			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to apply wall covering in accordance with job and manufacturers' specifications.

Learning Outcomes

Upon successful completion, the apprentice is able to:

2.7.1 Explain the characteristics of wall covering materials.

2.7.2 Check materials to ensure that they are in accordance with blueprints and job specifications.

2.7.3 Handle wall covering to prevent damage.

2.7.4 Lay out and set up start and finish points.

2.7.5 Select an adhesive suited to the materials and task, in accordance with manufacturer's instructions and job specifications.

2.7.6 Apply adhesives to wall or covering.

2.7.7 Apply wall coverings in accordance with manufacturers' instructions.

2.7.8 Butt or double cut wall coverings.

Learning Content

2.7.1 Explain the characteristics of wall covering materials.
[1/0]

- explain the principles of absorption and moisture resistance
- describe the properties of acoustic and insulation materials
- explain the significance of weights of linings and degrees of absorption and adhesion in the selection and application of wall covering materials
- describe the processes of expansion and contraction as they apply to wall covering materials
- identify the solid content of adhesives and explain the impact on their use

2.7.2 Check materials to ensure that they are in accordance with blueprints and job specifications.
[1/0]

- read manufacturer's instructions, blueprints, wall schedules, and job specifications
- before beginning work, ensure that all coverings are of the same lot number and record dye lot number
- identify any defects in wall covering
- protect wall covering prior to and during application
- explain manufacturer's warranty limitations with respect to wall coverings
- determine whether required lengths are available

2.7.3 Handle wall covering to prevent damage.
[0/1]

- lay out wall paper on a clean surface
- maintain clean hands
- remove jewellery
- book or fold wall paper without creasing
- lay wall paper flat for storage
- follow manufacturer's instructions for handling and storage

2.7.4 Lay out and set up start and finish points.
[1/1]

- discuss drawings and specifications
- calculate the number of strips required
- lay out the room
- cut material to match patterns
- reverse strips for consistency as required
- number cut lengths to correspond with locations on the wall
- allow for loss caused by using drop patterns
- cut using procedures to eliminate waste
- select trimming tool suited to the specific task (sharp blade, scissors, straight edge, measuring tape, etc.)
- trim wall covering to specified dimensions
- plumb a line for the first strip on each wall and any new opening
- finish the pattern in an inconspicuous location
- for large patterns, e.g., murals, work from the centre out
- match at eye level

2.7.5 Select an adhesive suited to the materials and task, in accordance with manufacturer’s instructions and job specifications.
[1/0]

- list adhesives used to apply wall coverings
- explain when to use adhesives (clay-based, cellulose-based, wheat-based, contact cement, etc.)
- identify special adhesives used for special types of coverings and explain when to use them
- read manufacturer’s instructions to determine recommended adhesive
- read job specifications

2.7.6 Apply adhesives to wall or covering.
[0/1]

- select appropriate tools and equipment to apply adhesive
- calculate required quantities of adhesive
- mix adhesive to manufacturers’ specifications
- ensure adhesive is of right thickness and consistency, thinning if necessary and checking for lumps
- pre-coat joints for heavy materials
- handle adhesives to protect self and others
- assess adhesive application
- wash hands after applications

2.7.7 Apply wall coverings in accordance with manufacturers' instructions.
[1/14]

- remove switch plates if required
- work carefully near electricity to avoid electrical shocks
- read manufacturer's instructions
- use appropriate tools to apply the covering (wall paper brush, broad knife, putty knife, seam roller, trowel, sponge, cutting knife, level, etc.)
- decide whether to dry hang or wet hang wall covering
- start at top of and maintain plumb by using a wall covering straight edge and hang
- covering down
- smooth out to eliminate bubbles and loose wall covering
- cut out for protrusions and projections
- troubleshoot as required
- trim top and bottom
- remove excess adhesive ensuring covering is free of stains
- hang subsequent lengths in the same manner, ensuring pattern match, retain plumb and cut wall covering at corners
- wrap wall covering around corners, smoothing into straight sections
- cut off remainder and overlap
- assess wall covering application

2.7.8 Butt or double cut wall coverings.
[1/1]

- read and follow manufacturers' instructions
- explain the use of wire seams and lap seams
- choose appropriate tool for the task (double cutter, straight edge, razor knife, seam roller, broad knife, sponge, etc.)
- butt wall covering and match patterns
- double-cut wall covering, making sure both sheets are plumb and both edges glued
- assess cuts

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
25%	75%	100%

Level 3

Industrial

Summary Of Total In-School Training Hours Level 3 Industrial

Number	Reportable Subjects	Hours Total	Hours Theory	Hours Practical
Unit 1	Workplace Health & Safety III	66	33	33
Unit 2	Trade Calculations & Science III	57	36	21
Unit 3	Tools & Equipment III	12	9	3
Unit 4	Surface Preparation III	45	21	24
Unit 5	Coating Applications III	24	18	6
Unit 6	Spray Coating Applications III	36	22	14
Level 3 Industrial Total		**240**	**139**	**101**

Number:	Unit 3.1		
Title:	**Workplace Health & Safety III - Industrial**		
Duration:	Total Hours: 66	Theory: 33	Practical: 33
Prerequisites:	Workplace Health & Safety II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1471.0, .03 - .05, .13; 1478.0, .08			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to protect self and others by describing containment structures, performing lead abatement procedures and working in a confined space.

Learning Outcomes

Upon successful completion, the apprentice is able to:

3.1.1 Describe containment structures.

3.1.2 Perform lead abatement procedures.

3.1.3 Perform industrial work in a confined space.

Learning Content

3.1.1 Describe containment structures.
[12/0]

- identify and describe containment needs
- list materials used, such as tarps, poly, shrink wrap and plywood
- describe the use of assembling chutes and lower holding bays
- explain how to close seams using lapping with stitching, gluing, stapling, and wood framing

3.1.2 Perform lead abatement procedures.
[6/21]

- perform the abatement methods appropriate for interior components
- secure the area, both moveable and fixed objects, using HEPA vacuuming, decontamination facility, containment and negative pressure systems
- perform the removal techniques of stripping (on-site, abrasive, chemical, caustic and off site), wet scraping and sanding
- describe methods used in environmental and soil abatement, contained water blasting, wet abrasive blasting, and abrasive blasting with HEPA vacuum
- describe methods of blast containment and water containment
- perform abatement techniques
- describe the basic methods of sampling lead abatement and analysis
- ensure that all work procedures are reported and documented

3.1.3 Perform industrial work in a confined space.
[15/12]

- describe and perform the atmospheric testing procedures appropriate for confined space work (testing and monitoring, location of testing, order of testing such as oxygen level, flammable gasses and toxic airborne contaminants)
- describe the prevention of hazards in confined spaces, such as fire and explosion (explosion limits, flammable and explosive substances, sources of ignition), obstacles, residual chemicals and materials, electrical, restricted visibility, humidity and noise
- describe the requirements, limitations and uses of natural general and exhaust ventilations for confined spaces
- select and apply appropriate methods of cleaning, purging, blanks and blinds, and lock- out

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
50%	50%	100%

Number:	Unit 3.2		
Title:	**Trade Calculations & Science III - Industrial**		
Duration:	Total Hours: 57	Theory: 36	Practical: 21
Prerequisites:	Trade Calculations & Science II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1472.0, .01, .02, .05, .06; 1475.0, .03; 1477.0, .06, .08			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to apply advanced scientific principles, math, estimating, interpretations of architectural drawings and software programs to complete trade specific tasks.

Learning Outcomes

Upon successful completion, the apprentice is able to:

3.2.1 Explain the physical properties of substances and materials used in the industrial painter trade.

3.2.2 Explain the effects of moisture and dryness on materials.

3.2.3 Explain trade science principles to test procedures.

3.2.4 Interpret architectural detail on drawings.

3.2.5 Use estimating to determine whether a specific task can be completed with allotted time and materials.

3.2.6 Spray, brush and roll in accordance with manufacturers' instructions for equipment, tools and materials.

3.2.7 Use trade specific software programs to produce drawings and job specifications.

Learning Content

3.2.1 Explain the physical properties of substances and materials used in the industrial painter trade.
[3/0]

- explain the nature of surfaces in relation to adhesion, surface tension, capillary attraction, and porosity
- explain the effects on paint surfaces of atmosphere (temperature, light, humidity and wind), ventilation and pollution
- describe the porosity and acoustic properties of a variety of surfaces
- explain the effects of the environment on coatings and other finishes

3.2.2 Explain the effects of moisture and dryness on materials.
[6/0]

- determine content, movement, absorption and efflorescence
- describe the processes of rotting and burning
- describe the process of the carbonization of lime
- calculate drying times
- describe the effects of heat, shrinkage, hardness and absorption
- describe the saponification of oil
- explain alkali resistance
- list the special physical characteristics of various building boards, including wall and ceiling boards
- explain the purpose of using pre-treatments and sealers
- explain expansion and contraction
- describe the process of corrosion of metals
- describe degreasing and de-rusting methods
- explain the properties of etchers and mordant solutions
- explain iron phosphates, coating, and rust prevention
- describe the properties of adhesive paints
- explain the treatment and oxidization of fibres

3.2.3 Explain trade science principles to test procedures.
[3/0]

- describe moisture and temperature tests
- identify mil thickness of wet and dry paint film specifications
- determine specification requirements for curing, adhesion and drying
- explain how to calculate the dewpoint for special coatings, using various meters

3.2.4 Interpret architectural detail on drawings.
[6/0]

- interpret the alphabet of lines, notes and title blocks
- read simple production drawings
- interpret the symbols commonly used to identify materials, plan, plumbing, electrical components, heating and ventilation
- identify abbreviations commonly used on plans
- identify the basic components of three-elevation drawings and projections
- interpret title-block information
- identify the types of drawing of floor, sections, elevations, roof plans, reflected plans and detail
- interpret drawings and specifications to define the size, shape and locations of areas to be finished; determine the kinds and grades of materials, types of finish and colour schedules specified

3.2.5 Use estimating to determine whether a specific task can be completed with allotted time and materials.
[3/0]

- explain the purpose of the estimation process
- determine whether materials provided at a work site will be sufficient for the task
- use arithmetic as required to arrive at estimates of materials and time required to complete jobs, based on blueprints

3.2.6 Spray, brush and roll in accordance with manufacturers' instructions for equipment, tools and materials.
[3/3]

- utilize manufacturer's instructions to help determine what equipment is required for successful completion of the job
- choose appropriate spray gun tip size
- identify and apply required number of coats
- read instructions to determine whether thinner is required and, if so, choose and add thinner
- identify and allow drying time specified
- recognize the flash point of specified materials
- use personal protective equipment required for safe use of materials and equipment

3.2.7 Use trade specific software programs to produce drawings and job specifications.
[12/18]

- describe the uses of CAD software
- identify CAD related hardware
- explain menu structures
- identify function keys
- use drawing aids and menus
- create drawings using job specifications
- print drawings
- edit drawings
- identify manufacturers' resources (sites, software, CD ROM)
- access resources
- print resources
- interpret resources and/or specifications
- complete a basic estimate

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
60%	40%	100%

Number:	Unit 3.3		
Title:	**Tools & Equipment III - Industrial**		
Duration:	Total Hours: 12	Theory: 9	Practical: 3
Prerequisites:	Tools & Equipment II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1473.0, .04; 1477.0, .03, .04			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to describe the use and maintenance of equipment for surface preparation.

Learning Outcomes

Upon successful completion, the apprentice is able to:

3.3.1 Describe the use of and maintenance procedures for equipment for surface preparation.

Learning Content

3.3.1 Describe the use and maintenance procedures of equipment for surface preparation.
[9/3]

- outline the selection and use of water blasting (including steam cleaning) equipment, such as low pressure power washers, detergent injection, high pressure (30,000psi +), hydraulic hose, deadman controls, water bypass, pressure gauges, sand injection heads, nozzles (various sizes, round power head or fan tips, rotating heads), self feeding pipe cleaning nozzles, fittings rated to pressure, water heater boilers, lance, pressure safety and face shields
- outline the selection and use of sandblasting equipment such as dual chamber, standard pot (300lb to 8 ton+), compressors, safety valves, air regulators, nozzles (single and double venturi wet rings, rotating head, angle type, etc.) remote control deadman- pneumatic & electric, pressure gauges, types of abrasives, metering valves, air fed hoods, grit recycling machines, centrifugal blast cabinets, blast track, classifiers-rotating drum, (air wash, magnetic conveyors), bucket, (screw, belt types), vacuum blast equipment, vacuum heads (inside, outside flat and 90 heads, CO detectors), breathing air equipment, after coolers, moisture separators (filter or cyclone types coalescing filters, receiver tanks and air dryers)

- identify the daily maintenance procedures for equipment (e.g., packings, washers, bushings, fluid levels, etc.)

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
75%	25%	100%

Number:	Unit 3.4		
Title:	**Surface Preparation III - Industrial**		
Duration:	Total Hours: 45	Theory:21	Practical: 24
Prerequisites:	Surface Preparation II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1474.0, .02 - .05; 1477.0, .03 - .10			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to prepare surfaces using a variety of cleaning and blasting methods and by explaining how to acid-etch concrete and clean with high-pressure water.

Learning Outcomes

Upon successful completion, the apprentice is able to:

3.4.1 Prepare plastic and vinyl surfaces.

3.4.2 Perform basic sandblasting procedures on structural steel in accordance with standards.

3.4.3 Perform basic sandblasting of concrete surfaces to achieve specified removal of surface materials.

3.4.4 Describe high-pressure water cleaning of concrete, masonry and metal surfaces.

3.4.5 Use mechanical tools to clean steel and concrete in accordance with specifications.

3.4.6 Explain how to acid-etch concrete.

3.4.7 Perform chemical cleaning.

3.4.8 Perform cleaning of substrates using hand tools.

3.4.9 Apply primers to metal and wood in accordance with manufacturer’s instructions.

Learning Content

3.4.1 Prepare plastic and vinyl surfaces.
[3/1]

- read manufacturer's instructions
- select and use personal protective equipment
- clean surfaces using a technique and materials appropriate to the task at hand (e.g., wash with chemicals, water blast, use wire brush)
- select and apply a flash-bond primer as a barrier coat
- sand surfaces as required (e.g., vinyl, plastic laminate)
- choose and apply a primer appropriate to the task at hand
- follow safety procedures to protect self and others from hazards (e.g., flash-point and fumes)

3.4.2 Perform basic sandblasting procedures on structural steel in accordance with standards.
[2/5]

- inspect sandblasting equipment to ensure that it is safe for use
- sandblast structural steel in accordance with the standards of the Steel Structures Paint Council
- sandblast structural steel in accordance with Swedish standards
- sandblast structural steel in accordance with National Association of Corrosion Engineers standards
- explain the need for containment for specified substances
- adjust time, distance, and nozzle size to meet standard
- choose specified abrasive to remove surface materials
- use equipment suited to the task (compressor and sand-blast pot, after-dryer, moisture separator)
- protect self and others by using air-fed hood and self-contained breathing apparatus, hearing protection, and other personal protective equipment as required (e.g., charcoal- filter mask, carbon monoxide monitor)
- explain the importance of having emergency numbers at hand
- explain the use of deadman controls, electrical and pneumatic
- choose appropriate pressure for the task
- use a pressure not in excess of personal physical strength
- operate equipment according to CSA and ASTM standards
- use standard agreed-upon hand signals and radio signals to communicate with the pot attendant
- follow standard procedures in operation of pot
- empty and clean pot
- blow down steel

3.4.3 Perform basic sandblasting of concrete surfaces to achieve specified removal of surface materials.
[1/3]

- distinguish between blast types
- identify specialized equipment (e.g., shot blaster) for concrete blasting
- sand blast concrete in accordance with relevant standards
- remove surface materials in preparation for painting

3.4.4 Describe high-pressure water cleaning of concrete, masonry and metal surfaces.
[3/0]

- locate and read the relevant SSPC and NACE standards.
- identify the selection of equipment specific to the task
- outline uses of high-pressure water pump, orbital or oscillating tip, lance, straight- shooter or fan-tip nozzles, hoses and mechanical tools safely and in accordance with manufacturer's instructions
- identify possible hazards
- describe roping off procedures and signage
- identify surfaces to be protected
- identify surfaces to be blasted
- identify the addition of cleaning and inhibiting agents to the process

3.4.5 Use mechanical tools to clean steel and concrete in accordance with specifications.
[3/6]

- locate and read the relevant SSPC and NACE standards.
- explain how to remove scale, rust, paint and foreign debris from steel
- explain how to remove scale, rust, paint and foreign debris from concrete
- operate mechanical (power) cleaning tools (grinders, needle guns, power chisels, wire wheels)
- protect self and others by observing safety precautions

3.4.6 Explain how to acid-etch concrete.
[3/0]

- locate and read the relevant SSPC and NACE standards.
- describe the selection of required personal protective equipment
- list etching materials (e.g., muriatic acid, hydrochloric acid, etc.)

- identify the tools and equipment required for the task
- describe concrete etching procedures
- explain the disposal of run-off by mixing with lime and washing
- describe the application of a neutralizing rinse

3.4.7 Perform chemical cleaning.
[1/3]

- locate and read the relevant SSPC and NACE standards.
- read manufacturer’s instructions and job specifications
- choose a sponge, squeegee, or spray gun to perform cleaning
- apply appropriate chemical cleaning agent specific to the task (lacquer thinner, paint remover, wall sizing, soap, trisodium phosphate, or bleach)
- protect self and others by observing safety precautions

3.4.8 Perform cleaning of substrates using hand tools.
[3/3]

- locate and read the relevant SSPC and NACE standards.
- read manufacturer’s instructions
- select hand tools specific to task (scrapers, hammers, chisels, shovels, chipping hammers, wire brushes, brooms, sanding poles)
- use sandpaper, steel wool and duster
- maintain tools and equipment to ensure effective use
- protect self and others by observing safety precautions

3.4.9 Apply primers to metal and wood in accordance with manufacturer’s instructions.
[2/3]

- locate and read the relevant SSPC and NACE standards.
- define explosion properties of hydrocarbons and distillates
- protect self and others by observing safety precautions
- ensure proper ventilation to protect self and others
- use explosion-proof lighting
- select a primer suited to the assigned task (alkyd, water, epoxy, vinyl, zinc or lacquer)
- select the appropriate application method (brush, roller, spray)
- apply in accordance with manufacturer’s instructions

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
45%	65%	100%

Number:	Unit 3.5		
Title:	**Coating Applications III - Industrial**		
Duration:	Total Hours: 24	Theory:18	Practical: 6
Prerequisites:	Coating Applications II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1472.0, .02, .05, .06; 1474.0, .04			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to use coatings technology to test paint films for thickness as well as explaining how to test for moisture and temperature.

Learning Outcomes

Upon successful completion, the apprentice is able to:

3.5.1 Describe coatings technology and the uses of a variety of media and materials.

3.5.2 Determine whether the mil thickness of wet and dry paint films meets specifications.

3.5.3 Explain how to perform moisture and temperature tests.

Learning Content

3.5.1 Describe coatings technology and the uses of a variety of media and materials.
[9/0]

- identify and describe media and materials suited to specific applications
  - types of air-drying media, oil and synthetic materials
  - oil dryers and terebanes
  - types of thinners
  - oil and synthetic materials
  - cellulose paints
  - lacquers, primers, undercoats and finishes
  - size water solutions
  - casein binders
  - homopolymer and copolymer emulsions
  - cement, silicon and fire-retardant paints
  - water- and solvent-borne paints

- describe the chemical properties of materials:
  - inflammability and fumes
  - water solutions and fire-retardant pigments
- explain how to conserve paint by determining shelf life, avoiding the adverse results of intermixture of dissimilar paints, avoiding wastage, bleeding and livering
- discuss the functions of primers and explain how primers are reduced
- identify the causes of paint film breakdown and defects including peeling, sealing, blistering and alligatoring

3.5.2 Determine whether the mil thickness of wet and dry paint films meets specifications.
[3/6]

- read specifications to determine mil thickness requirements
- take readings on a wet film gauge
- average several readings on a wet film gauge
- take readings on a dry film gauge
- explain the impact of volume solids on mil thickness
- explain the impact on mil thickness of using incorrect equipment
- touch up pinholes caused by mil testing

3.5.3 Explain how to perform moisture and temperature tests.
[6/0]

- explain the impact of moisture and temperature on work performed
- describe the use of measuring instruments including a hygrometer, moisture meter, and thermometer
- read specifications to determine requirements for curing, adhesion and drying
- describe how to calculate the dewpoint for special coatings
- outline the process to take accurate readings of moisture and temperature to determine whether conditions meet specifications
- interpret readings and base decisions on results to take appropriate steps

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
75%	25%	100%

Number:	Unit 3.6		
Title:	**Spray Coating Applications II - Industrial**		
Duration:	Total Hours: 36	Theory:22	Practical: 14
Prerequisites:	Spray Coating Applications I		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1473.0, .04; 1477.0, .04, .05, .11; 1478.0, .02, .03, .06, .07, .09			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to explain how to apply a variety of special coatings as well as using spray equipment and preparing surfaces.

Learning Outcomes

Upon successful completion, the apprentice is able to:

3.6.1 Operate spraying equipment for applications in accordance with job specifications and manufacturer’s instructions.

3.6.2 Explain how to apply special coatings in industrial and commercial jobs, in accordance with specifications and standards.

3.6.3 Explain how to apply paint electrostatically in accordance with specifications, manufacturers’ instructions and standards.

3.6.4 Select spraying equipment for industrial applications in accordance with job specifications and manufacturer’s instructions.

3.6.5 Explain how to metallize surfaces in accordance with specifications and standards.

Learning Content

3.6.1 Operate spraying equipment for applications in accordance with job specifications and manufacturer's instructions.
[6/8]

- read specifications and manufacturer's instructions
- inspect equipment to ensure it is in safe working condition
- select spraying equipment specific to task and job specifications (e.g., correct tip and nozzle size, pots, compressors, air or fluid hoses, extension cords, wrenches, strainers, conventional and air-less equipment, mix manifold, electric mixer or air mixer depending upon material, wet and dry film mil gauges, gun pole, etc.)
- operate conventional spray equipment used in the application of the finishing materials: spray gun, fluid tips and air caps, spinner and offset nozzles, lance (wands), suction feed guns, pressure feed guns and pressure pots, electrostatic guns, hot spray heating units, paints and air lines and fittings
- operate airless spray equipment employed in the application of the finishing materials: spray guns, tips (adjustable and self-cleaning) lances and ground paint lines, electrostatic guns and dip tanks, hydraulic pumps 60: 1), hot spray heating units, steam heating units, plural component pumps, plural component gun (int. and ext. catalyst injection units and agitators, HVLP units)
- operate related equipment employed in the application of the finishing materials: electric, pneumatic, or hydraulic mixers, pressure feed rollers and pads
- wear required personal protective equipment, including spray hood, impermeable coveralls, gloves with related liners or liquid glove
- ensure proper grounding of equipment
- explain effective spraying techniques
- use all spraying equipment safely and according to manufacturer's instructions to achieve finish specified in job specifications

3.6.2 Explain how to apply special coatings in industrial and commercial jobs, in accordance with specifications and standards.
[4/0]

- locate and read the relevant SSPC and NACE standards.
- describe the characteristics of special coatings, including epoxies, elastomerics, coal tar, chlorinated rubber, glaze, zinc, stucco, mastic, urethane, etc.
- list accelerators and catalysts
- read manufacturer's instructions
- describe how to spray special coatings
- describe how to spot special coatings
- describe how to veil special coatings
- explain the importance of wearing required personal protective equipment, including an air-fed hood
- explain the impact of the environmental conditions on the pot life of a coating
- explain how to mix according to specified ratios
- define curing times
- identify cooking times
- describe application techniques
- explain the importance of the re-coat window

3.6.3 Explain how to apply paint electrostatically in accordance with specifications, manufacturers' instructions and standards.
[4/0]

- locate and read the relevant SSPC and NACE standards.
- locate and read relevant job specifications and manufacturer's instructions
- identify the required personal protective equipment, including mask
- describe adequate ventilation methods and/or techniques
- explain the common grounding of the operator, pot, machine and substrate
- describe the process of basic electrostatic spray painting equipment (spray gun, compressor, viscosity cup, and power pack) to charge paint at nozzle tip
- describe various electrostatic spray painting systems
- explain how to perform an adhesion test
- describe how to apply paint, hand-holding the gun, to achieve an even coat
- outline effective techniques for applying paint

3.6.4 Select spraying equipment for industrial applications in accordance with job specifications and manufacturer's instructions.
[2/2]

- read specifications and manufacturer's instructions
- inspect equipment to ensure it is in safe working condition
- identify the selection of spraying equipment specific to task and job specifications (e.g., correct tip and nozzle size, pots, compressors, air or fluid hoses, extension cords, wrenches, strainers, conventional and air-less equipment, mix manifold, electric mixer or air mixer depending upon material, wet and dry film mil gauges, and gun pole)
- describe proper grounding of equipment
- explain effective spraying techniques
- describe the use of spraying equipment safely and according to manufacturer's instructions to achieve finish specified in job specifications

3.6.5 Explain how to metallize surfaces in accordance with specifications and standards.
[6/4]

- locate and read the relevant SSPC and NACE standards.
- locate and read relevant section of the job specifications
- determine exact requirements of precise specifications
- describe how to prepare metal surface with white metal abrasive blasting
- pre-heat substrate, if required
- list required spray equipment (acetylene, oxygen, air or propane or electric gun using powder) specific to task
- select and use metallizing (thermal spray) and vacuum equipment employed in the application of the finishing materials: plasma arc, electric arc, high rate arc, combustion flame, burning gases, materials applied wire or powder, cathodic protection, and plastic spray equipment, flame sprayed, jet vac pumps and blower driven HEPA vacuum
- list steps to follow to apply a protective coating suited to task at hand (zinc, steel, aluminium, ceramic, copper, etc.)
- describe industrial top coats including modified and self-prime coatings, including purpose, surface preparation, types, advantages and disadvantages, compatibility, life expectancy, methods of mixing, thinning and application

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
60%	40%	100%

Level 3

Commercial/Residential

Summary Of Total In-School Training Hours Level 3 Commercial/Residential

Number	Reportable Subjects	Hours Total	Hours Theory	Hours Practical
Unit 1	Workplace Health & Safety III	66	33	33
Unit 2	Trade Calculations & Science III	57	36	21
Unit 3	Tools & Equipment III	12	9	3
Unit 4	Surface Preparation IV	21	13	8
Unit 5	Coating Applications II	39	15	24
Unit 6	Spray Coating Applications II	21	9	12
Unit 7	Wall Covering IV	24	7	17
Level 3 Commercial/Residential Total		**240**	**122**	**118**

Number:	Unit 4.1		
Title:	**Workplace Health & Safety III - Commercial/Residential**		
Duration:	Total Hours: 66	Theory:33	Practical: 33
Prerequisites:	Workplace Health & Safety II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1471.0, .03 - .05, .13; 1478.0, .08			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to protect self and others by describing containment structures, performing lead abatement procedures and working in a confined space.

Learning Outcomes

Upon successful completion, the apprentice is able to:

4.1.1 Describe containment structures.

4.1.2 Perform lead abatement procedures.

4.1.3 Perform commercial/residential work in a confined space.

Learning Content

4.1.1 Describe containment structures.
[12/0]

- identify and describe containment needs
- list materials used, such as tarps, poly, shrink wrap and plywood
- describe the use of assembling chutes and lower holding bays
- explain how to close seams using lapping with stitching, gluing, stapling, and wood framing

4.1.2 Perform lead abatement procedures.
[6/21]

- perform the abatement methods appropriate for interior components
- secure the area, both moveable and fixed objects, using HEPA vacuuming, decontamination facility, containment and negative pressure systems
- perform the removal techniques of stripping (on-site, abrasive, chemical, caustic and off site), wet scraping and sanding
- describe methods used in environmental and soil abatement, contained water blasting, wet abrasive blasting, and abrasive blasting with HEPA vacuum
- describe methods of blast containment and water containment
- perform abatement techniques
- describe the basic methods of sampling lead abatement and analysis
- ensure that all work procedures are reported and documented

4.1.3 Perform commercial/residential work in a confined space.
[15/12]

- describe and perform the atmospheric testing procedures appropriate for confined space work (testing and monitoring, location of testing, order of testing such as oxygen level, flammable gasses and toxic airborne contaminants)
- describe the prevention of hazards in confined spaces, such as fire and explosion (explosion limits, flammable and explosive substances, sources of ignition), obstacles, residual chemicals and materials, electrical, restricted visibility, humidity and noise
- describe the requirements, limitations and uses of natural general and exhaust ventilations for confined spaces
- select and apply appropriate methods of cleaning, purging, blanks and blinds, and lock- out

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
50%	50%	100%

Number:	Unit 4.2		
Title:	**Trade Calculations & Science III - Commercial/Residential**		
Duration:	Total Hours: 57	Theory:36	Practical: 21
Prerequisites:	Drawings & Calculations II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1472.0, .01, .02, .05, .06; 1475.0, .03; 1477.0, .06, .08			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to apply advanced scientific principles, math, estimating, interpretations of architectural drawings and software programs to complete trade specific tasks.

Learning Outcomes

Upon successful completion, the apprentice is able to:

4.2.1 Explain the physical properties of substances and materials used in the painter decorator trade.

4.2.2 Explain the effects of moisture and dryness on materials.

4.2.3 Explain trade science principles to test procedures.

4.2.4 Interpret architectural detail on drawings.

4.2.5 Use estimating to determine whether a specific task can be completed with allotted time and materials.

4.2.6 Spray, brush and roll in accordance with manufacturers' instructions for equipment, tools and materials.

4.2.7 Use trade specific software programs to produce drawings and job specifications.

Learning Content

4.2.1 Explain the physical properties of substances and materials used in the painter decorator trade.
[3/0]

- explain the nature of surfaces in relation to adhesion, surface tension, capillary attraction, and porosity
- explain the effects on paint surfaces of atmosphere (temperature, light, humidity and wind), ventilation and pollution
- describe the porosity and acoustic properties of a variety of surfaces
- explain the effects of the environment on coatings and other finishes

4.2.2 Explain the effects of moisture and dryness on materials.
[6/0]

- determine content, movement, absorption and efflorescence
- describe the processes of rotting and burning
- describe the process of the carbonization of lime
- calculate drying times
- describe the effects of heat, shrinkage, hardness and absorption
- describe the saponification of oil
- explain alkali resistance
- list the special physical characteristics of various building boards, including wall and ceiling boards
- explain the purpose of using pre-treatments and sealers
- explain expansion and contraction
- describe the process of corrosion of metals
- describe degreasing and de-rusting methods
- explain the properties of etchers and mordant solutions
- explain iron phosphates, coating, and rust prevention
- describe the properties of adhesive paints
- explain the treatment and oxidization of fibres

4.2.3 Explain trade science principles to test procedures.
[3/0]

- describe moisture and temperature tests
- identify mil thickness of wet and dry paint film specifications
- determine specification requirements for curing, adhesion and drying
- explain how to calculate the dewpoint for special coatings, using various meters

4.2.4 Interpret architectural detail on drawings.
[6/0]

- interpret the alphabet of lines, notes and title blocks
- read simple production drawings
- interpret the symbols commonly used to identify materials, plan, plumbing, electrical components, heating and ventilation
- identify abbreviations commonly used on plans
- identify the basic components of three-elevation drawings and projections
- interpret title-block information
- identify the types of drawing of floor, sections, elevations, roof plans, reflected plans and detail
- interpret drawings and specifications to define the size, shape and locations of areas to be finished; determine the kinds and grades of materials, types of finish and colour schedules specified

4.2.5 Use estimating to determine whether a specific task can be completed with allotted time and materials.
[3/0]

- explain the purpose of the estimation process
- determine whether materials provided at a work site will be sufficient for the task
- use arithmetic as required to arrive at estimates of materials and time required to complete jobs, based on blueprints

4.2.6 Spray, brush and roll in accordance with manufacturers' instructions for equipment, tools and materials.
[3/3]

- interpret manufacturer's instructions for equipment required by job order
- choose appropriate spray gun tip size
- identify and apply required number of coats
- read instructions to determine whether thinner is required and, if so, choose and add thinner
- identify and allow drying time specified
- recognize the flash point of specified materials
- use personal protective equipment required for safe use of materials and equipment

4.2.7 Use trade specific software programs to produce drawings and job specifications.
[12/18]

- describe the uses of CAD software
- identify CAD related hardware
- explain menu structures
- identify function keys
- use drawing aids and menus
- create drawings using job specifications
- print drawings
- edit drawings
- identify manufacturers' resources (sites, software, CD ROM)
- access resources
- print resources
- interpret resources and/or specifications
- complete a basic estimate

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
60%	40%	100%

Number:	Unit 4.3		
Title:	**Tools & Equipment III - Commercial/Residential**		
Duration:	Total Hours: 12	Theory:9	Practical: 3
Prerequisites:	Tools & Equipment II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1473.0, .04; 1477.0, .03, .04			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to describe the use and maintenance of equipment for commercial/residential surface preparation.

Learning Outcomes

Upon successful completion, the apprentice is able to:

4.3.1 Describe the use and maintenance procedures of equipment for commercial/residential surface preparation.

Learning Content

4.3.1 Describe the use and maintenance procedures of equipment for commercial/residential surface preparation.
[9/3]

- outline the selection and use of water blasting (including steam cleaning) equipment, such as low pressure power washers, detergent injection, high pressure (7,000 p.s.i. +), hydraulic hose, deadman controls, water bypass, pressure gauges, sand injection heads, nozzles (various sizes, round power head or fan tips, rotating heads), self feeding pipe cleaning nozzles, fittings rated to pressure, water heater boilers, lance, pressure safety and face shields
- outline the selection and use of sandblasting equipment such as, open pot, dual chamber, pressurized pot (150 lb +), compressors, safety valves, air regulators, nozzles (single, and double venturi wet rings), angle type, remote control deadman-pneumatic & electric, pressure gauges, types of abrasives, metering valves, air fed hoods, vacuum blast equipment, vacuum heads (inside, outside flat and 90 heads, CO detectors), breathing air equipment, after coolers, moisture separators (filter or cyclone types coalescing filters, receiver tanks and air dryers)
- identify the daily maintenance procedures for equipment (e.g., packings, washers, bushings, fluid levels, etc.)

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
75%	25%	100%

Number:	Unit 4.4		
Title:	**Surface Preparation IV - Commercial/Residential**		
Duration:	Total Hours: 21	Theory:13	Practical: 8
Prerequisites:	Surface Preparation II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1474.0, .02 - .04; 1477.0, .03, .06, .08, .09			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to prepare surfaces using chemicals, hand tools and primers and by explaining how to acid-etch concrete and clean with high-pressure water.

Learning Outcomes

Upon successful completion, the apprentice is able to:

4.4.1 Describe high-pressure water cleaning of concrete, masonry and metal surfaces.

4.4.2 Explain how to acid-etch concrete.

4.4.3 Perform chemical cleaning.

4.4.4 Perform cleaning of substrates using hand tools.

4.4.5 Apply primers to metal and wood in accordance with manufacturer’s instructions.

Learning Content

4.4.1 Describe high-pressure water cleaning of concrete, masonry and metal surfaces.
[3/0]

- locate and read the relevant SSPC and NACE standards.
- identify the selection of equipment specific to the task
- outline uses of high-pressure water pump, orbital or oscillating tip, lance, straight- shooter or fan-tip nozzles, hoses and mechanical tools safely and in accordance with manufacturer’s instructions

- identify possible hazards
- describe roping off procedures and signage
- identify surfaces to be protected
- identify surfaces to be blasted
- identify the addition of cleaning and inhibiting agents to the process

4.4.2 Explain how to acid-etch concrete.
[3/0]

- locate and read the relevant SSPC and NACE standards.
- describe the selection of required personal protective equipment
- list etching materials (e.g., muriatic acid, hydrochloric acid, etc.)
- identify the tools and equipment required for the task
- describe concrete etching procedures
- explain the disposal of run-off by mixing with lime and washing
- describe the application of a neutralizing rinse

4.4.3 Perform chemical cleaning.
[1/2]

- locate and read the relevant SSPC and NACE standards.
- read manufacturer’s instructions and job specifications
- choose a sponge, squeegee, or spray gun to perform cleaning
- apply appropriate chemical cleaning agent specific to the task (lacquer thinner, paint remover, wall sizing, soap, trisodium phosphate, bleach, etc.)
- protect self and others by observing safety precautions

4.4.4 Perform cleaning of substrates using hand tools.
[3/3]

- locate and read the relevant SSPC and NACE standards.
- read manufacturer’s instructions
- select hand tools specific to task (scrapers, hammers, chisels, shovels, chipping hammers, wire brushes, brooms, sanding poles)
- use sandpaper, steel wool and duster
- maintain tools and equipment to ensure effective use
- protect self and others by observing safety precautions

4.4.5 Apply primers to metal and wood in accordance with manufacturer's instructions.
[3/3]

- locate and read the relevant SSPC and NACE standards.
- protect self and others by observing safety precautions
- select a primer suited to the assigned task (alkyd, water, epoxy, vinyl, zinc or lacquer)
- select the appropriate application method (brush, roller, spray)
- apply in accordance with manufacturer's instructions
- ensure proper ventilation to protect self and others
- use explosion-proof lighting
- define explosion properties of hydrocarbons and distillates

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
60%	40%	100%

Number:	Unit 4.5		
Title:	**Coating Applications IV - Commercial/Residential**		
Duration:	Total Hours: 39	Theory:15	Practical: 24
Prerequisites:	Coating Applications II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1472.0, .05, .06; 1475.0, .03, .08			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to produce complex decorative patterns using paint technology as well as explaining special effects and gilding applications.

Learning Outcomes

Upon successful completion, the apprentice is able to:

4.5.1 Apply paint technology and use a variety of media and materials.

4.5.2 Apply complex decorative patterns in accordance with blueprints and specifications.

4.5.3 Explain how to produce special effects.

4.5.4 Explain how to perform gilding procedures.

4.5.5 Explain how to perform moisture and temperature tests.

Learning Content

4.5.1 Apply paint technology and use a variety of media and materials. [3/0]

- identify and describe media and materials suited to specific applications
  - types of air-drying media, oil and synthetic materials
  - oil dryers and terebanes
  - types of thinners
  - oil and synthetic materials
  - cellulose paints
  - lacquers, primers, undercoats and finishes
  - size water solutions

  - casein binders
  - homopolymer and copolymer emulsions
  - cement, silicon and fire-retardant paints
  - water- and solvent-borne paints
- describe the chemical properties of materials:
  - inflammability and fumes
  - water solutions and fire-retardant pigments
- explain how to conserve paint by determining shelf life, avoiding the adverse results of intermixture of dissimilar paints, avoiding wastage, bleeding and livering
- discuss the functions of primers and explain how primers are reduced
- identify the causes of paint film breakdown and defects including peeling, sealing, blistering and alligatoring

4.5.2 Apply complex decorative patterns in accordance with blueprints and specifications.
[6/18]

- refer to blueprints and specifications to determine requirements for decorative patterns
- choose an appropriate method of applying decorative patterns based on job specifications (including stencilling, pouncing and multi-spec)
- use tools suited to the task at hand (stencilling brush, masking tape, edging tape, graphic tape, chalk line, straight edge, set square, stencil template, stencil knife, level, brushes, rollers, string, pencil roller, HVLP)
- design and cut plates to stencil labels
- use a variety of techniques to apply faux finishes (e.g., stencilling, veining and multi- spec)

4.5.3 Explain how to produce special effects.
[3/6]

- describe the formulations and components that produce a transparent glaze
- explain how to use materials such as oil and water-based scumbles and gilps (oil glaze, water glaze, linseed oil, acrylic varnish, drier retardant/accelerators, universal tints, oil stains, acid and protein binders, poster powders, thinners and solvents)
- describe materials simulated by broken colour effects such as type, colour, texture, depth, structure and lustre

- use and maintain equipment used in broken colour application such as badger softener/blender, dragger, flogger, overgrainer, cutter, fitch, mottler, stippler, combs, sponges, tick roller, graining roller, cloths, chamois leather, graining horn, goose feathers, writer's pencil, and test boards
- design and cut plates for creating contemporary and heritage schemes through stencilling
- produce a graphic effect using conventional methods and applications such as stencil brush, lining wheel, air brush, rollers, lining fitch, sword/dagger striper
- perform work in broken colour using a transparent glaze over a solid ground to produce the effects such as wood graining, marbling, shading, rag rolling, fantasy finishes, tortoiseshell, lapis lazuli, malachite, etc.

4.5.4 Explain how to perform gilding procedures.
[1/0]

- describe gilding layout and design identifying the equipment and materials in general use such as edging tapes, grease pencil, chalk line, straight edge, level, set squares and other geometrical instruments
- explain how to prepare surfaces to receive gilding, including wood, metal, plaster, and glass, using suitable primers, fullers earth, tri-sodium phosphate (TSP), and powdered whiting
- describe how to apply metallic leaf using gilding size and types of leaf such as rolled gold, silver leaf (palladium) and aluminium leaf using gilders tools such as gilders tip (badger and camel), gilders cushion, gilders screen, small wooden chisel, cotton wool, soft sponge, gilders clay and chamois leather

4.5.5 Explain how to perform moisture and temperature tests.
[2/0]

- explain the impact of moisture and temperature on work performed
- describe the use of measuring instruments including a hygrometer, moisture meter, and thermometer
- read specifications to determine requirements for curing, adhesion and drying
- describe how to calculate the dewpoint for special coatings
- outline the process to take accurate readings of moisture and temperature to determine whether conditions meet specifications
- interpret readings and base decisions on results to take appropriate steps

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
40%	60%	100%

Number:	Unit 4.6		
Title:	**Spray Coating Applications II - Commercial/Residential**		
Duration:	Total Hours: 21	Theory:9	Practical: 12
Prerequisites:	Spray Coating Applications I		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1478.0, .03, .06, .07			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to apply spray coatings as well as explaining how to apply special coatings for commercial and residential jobs.

Learning Outcomes

Upon successful completion, the apprentice is able to:

4.6.1 Operate spraying equipment for applications in accordance with job specifications and manufacturer's instructions.

4.6.2 Explain how to apply special coatings in commercial and residential jobs, in accordance with specifications.

4.6.3 Apply paint electrostatically in accordance with specifications and manufacturers' instructions.

Learning Content

4.6.1 Operate spraying equipment for applications in accordance with job specifications and manufacturer's instructions.
[3/6]

- read specifications and manufacturer's instructions
- inspect equipment to ensure it is in safe working condition
- select spraying equipment specific to task and job specifications (e.g., correct tip and nozzle size, pots, compressors, air or fluid hoses, extension cords, wrenches, strainers, conventional and air-less equipment, mix manifold, electric mixer or air mixer depending upon material, wet and dry film mil gauges, gun pole, etc.)

- operate conventional spray equipment used in the application of the finishing materials: spray gun, fluid tips and air caps, spinner and offset nozzles, lance (wands), suction feed guns, pressure feed guns and pressure pots, electrostatic guns, paints and air lines and fittings
- operate airless spray equipment employed in the application of the finishing materials: spray guns, tips (adjustable and self-cleaning) lances and ground paint lines, electrostatic guns and dip tanks, hydraulic pumps, agitators and HVLP units
- operate related equipment employed in the application of the finishing materials: electric, pneumatic, or hydraulic mixers, pressure feed rollers and pads
- wear required personal protective equipment, including spray hood, impermeable coveralls, gloves with related liners or liquid glove
- ensure proper grounding of equipment
- explain effective spraying techniques
- use all spraying equipment safely and according to manufacturer's instructions to achieve finish specified in job specifications

4.6.2 Explain how to apply special coatings in commercial and residential jobs, in accordance with specifications.
[3/0]

- locate and read the relevant SSPC and NACE standards.
- describe the characteristics of special coatings, including epoxies, elastomerics, coal tar, chlorinated rubber, pithane, glaze, zinc, stucco, mastic, urethane, etc.
- list accelerators and catalysts
- read manufacturer's instructions
- describe how to spray special coatings
- describe how to spot special coatings
- describe how to veil special coatings
- explain the importance of wearing required personal protective equipment, including an air-fed hood
- explain the impact of the environmental conditions on the pot life of a coating
- explain how to mix according to specified ratios
- define curing times
- identify cooking times
- describe application techniques
- explain the importance of the re-coat window

4.6.3 Apply paint electrostatically in accordance with specifications and manufacturers' instructions.
[3/6]

- locate and read the relevant SSPC and NACE standards.
- wear required personal protective equipment, including mask
- ensure adequate ventilation
- ensure that operator, pot, machine and substrate have common ground
- use basic electrostatic spray painting equipment (spray gun, compressor, viscosity cup, and power pack) to charge paint at nozzle tip
- describe various electrostatic spray painting systems
- explain how to perform an adhesion test
- apply paint, hand-holding the gun, to achieve an even coat
- demonstrate effective techniques for applying paint
- apply paint, using production-painting method, to achieve an even coat

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
40%	60%	100%

Number:	Unit 4.7		
Title:	**Wall Coverings IV - Commercial/Residential**		
Duration:	Total Hours: 24	Theory:7	Practical: 17
Prerequisites:	Wall Coverings II		
Co-requisites:	None		
Cross-reference to Learning Outcomes: 1476.0, .01, .04 - .11			

General Learning Outcome

Upon successful completion of the reportable subject, the apprentice is able to apply specialty wall coverings in accordance with job and manufacturers' specifications.

Learning Outcomes

Upon successful completion, the apprentice is able to:

4.7.1 Describe the applications of specialty wall coverings.

4.7.2 Check specialty wall covering materials to ensure that they are in accordance with blueprints and job specifications.

4.7.3 Handle specialty wall covering to prevent damage.

4.7.4 Lay out and set up start and finish points for specialty wall covering.

4.7.5 Describe the selection of adhesives suited to specialty wall covering following the manufacturers' instructions and job specifications.

4.7.6 Apply adhesives to wall or specialty wall covering.

4.7.7 Apply specialty wall coverings in accordance with manufacturers' instructions.

Learning Content

4.7.1 Describe the applications of specialty wall coverings.
[3/0]

- Identify the types of specialty wall covering (e.g., silks, burlap, string, foil, veneer, borders, fabrics, etc.)
- Outline the methods of application
- Identify the tools and equipment for specialty wall covering application
- Identify the correct adhesive according to manufacturers' instructions

4.7.2 Check specialty wall covering materials to ensure that they are in accordance with blueprints and job specifications.
[1/0]

- read manufacturer's instructions, blueprints, wall schedules, and job specifications
- before beginning work, ensure that all coverings are of the same lot number and record dye lot number
- identify any defects in specialty wall covering
- protect specialty wall covering prior to and during application
- explain manufacturer's warranty limitations with respect to specialty wall coverings
- determine whether required lengths are available

4.7.3 Handle specialty wall covering to prevent damage.
[0/1]

- describe the importance of cleanliness when working with specialty wall covering
- lay out specialty wall covering on a clean surface
- maintain clean hands, tools, equipment and surfaces
- remove jewellery
- book or fold specialty wall covering without creasing
- lay specialty wall covering flat for storage
- follow manufacturer's instructions for handling and storage

4.7.4 Lay out and set up start and finish points for specialty wall covering.
[1/1]

- discuss drawings and specifications
- calculate the number of strips required
- lay out the room
- cut material to match patterns
- reverse strips for consistency as required
- number cut lengths to correspond with locations on the wall
- allow for loss caused by using drop patterns
- cut using procedures to eliminate waste
- select trimming tool suited to the specific task (sharp blade, scissors, straight edge, measuring tape, etc.)
- trim specialty wall covering to specified dimensions
- plumb a line for the first strip on each wall and any new opening
- finish the pattern in an inconspicuous location
- for large patterns, e.g., murals, work from the centre out
- match at eye level

4.7.5 Describe the selection of adhesives suited to specialty wall covering following the manufacturers' instructions and job specifications.
[1/0]

- list adhesives used to apply specialty wall coverings (clay-based, cellulose-based, wheat- based, contact cement, etc.)
- explain when to use adhesives
- read manufacturer's instructions to determine recommended adhesive
- read job specifications

4.7.6 Apply adhesives to wall or specialty wall covering.
[0/1]

- select appropriate tools and equipment to apply adhesive
- calculate required quantities of adhesive
- mix adhesive to manufacturers' specifications
- ensure adhesive is of right thickness and consistency, thinning if necessary and checking for lumps
- handle adhesives to protect self and others
- assess adhesive application
- wash hands after applications

4.7.7 Apply specialty wall coverings in accordance with manufacturers' instructions.
[1/14]

- remove switch plates and fixtures if required
- work carefully near electricity to avoid electrical shocks
- read manufacturer's instructions
- use appropriate tools to apply the specialty covering (wall paper brush, broad knife, putty knife, seam roller, trowel, sponge, cutting knife, level, etc.)
- decide whether to dry hang or wet hang specialty wall covering
- start at top of and maintain plumb by using a wall covering straight edge and hang covering down
- smooth out to eliminate bubbles avoiding creases
- cut out for protrusions and projections
- troubleshoot as required
- trim top and bottom
- avoid excess adhesive on specialty wall covers
- ensure specialty wall covering is free of stains
- hang subsequent lengths in the same manner, ensuring pattern match, retain plumb and cut wall covering at corners
- wrap wall covering around corners, smoothing into straight sections
- cut and trim edges and joints
- assess specialty wall covering application

Evaluation Structure		
Theory Testing	Application Exercises	Final Assessment
30%	70%	100%

APPENDIX A: Acronyms List

APR	Air Purifying Respirator
ASTM	American Society for Testing and Materials
CAD	Computer Aided Design
CD ROM	Compact Disk Read Only Memory
CO	Carbon Monoxide
CSA	Canadian Standards Association
HEPA	High Efficiency Particulate Accumulator
HVLP	High Volume Low Pressure
MSDS	Material Safety Data Sheet
NACE	National Association of Corrosion Engineers
OHSA	Occupational Health and Safety Act
PAPR	Powered Air Purifying Respirator
SSPC	Steel Structure Painting Council
TLV	Threshold Limit Value

Skilled Trades Ontario | Métiers spécialisés Ontario

skilledtradesontario.ca

Painter and Decorator