QUALIFICATION HANDBOOK

Certificate in Preparation and Application of Paint Systems at SCQF Level 5 (6807-22)

January 2015 Version 1.2

City & Guilds

Qualification at a glance

Subject area	Construction
City & Guilds number	6807
Age group approved	16-18, 19+
Assessment	Assignment, Multiple Choice
Support materials	Centre handbook Assessor guidance Task manual
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	**City & Guilds number**
Certificate in Preparation and Application of Paint Systems at SCQF Level 5	6807-22

Version and date	**Change detail**	**Section**
1.2 January 2015	Amendments to the test specification for unit 215	Test specification

Contents

1 Introduction

This document tells you what you need to do to deliver the qualification:

Area	Description
Who is the qualifications for?	It is for learners who work or want to work as a Painter and Decorator in the Construction sector.
What does the qualification cover?	It allows learners to learn, develop and practise the skills required for employment and/or career as a painter and decorator. It covers the following skills: • Preparing Surfaces for Decoration • Applying Paint Systems by Brush and Roller to complex areas
Is the qualification part of a framework or initiative?	No.
What opportunities for progression are there?	It allows learners to progress into employment or to the following City & Guilds qualifications: Diploma in Painting and Decorating at SCQF Level 6

Structure

To achieve the **Certificate in Preparation and Application of Paint Systems at SCQF Level 5 (6807-22),** learners must achieve **13** credits from the mandatory units below.

City & Guilds unit no.	Unit title	Credit value
215	Preparing surfaces for decoration	7
216	Applying paint systems by brush and roller to complex areas	6

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2 Centre requirements

Approval

The approval process for construction qualifications is available at our website. Please visit **www.cityandguilds,com/construction** for further information.

Resource requirements

Physical resources and site agreements

Centres will have well equipped workshops with a comprehensive range of hand and portable power tools that meet current industry standards. All powered equipment should be well maintained and PAT certified. Facilities for grinding and sharpening hand tools will be available. Centres will have special designated areas within Painting and Decorating workshop (cubicles or project areas) allowing candidates to practice the requirements of the units and carry out the Practical Assignments.

Centre staffing

All staff who assess (tutor/deliver) this qualification must:

- have recent relevant experience in the specific area they will be teaching;
- be technically competent in the area for which they are delivering training and/or have experience of providing training;
- have a CV available demonstrating relevant experience and any qualifications held.

All staff who quality assure this qualification must:

- have a good working knowledge and experience within the construction industry;
- have an established strategy and documentary audit trail of internal quality assurance;
- have a good working knowledge of quality assurance procedures;
- have a CV available demonstrating relevant experience and any qualifications held.

While the Assessor/Verifier (A/V) units/TAQA are valued as qualifications for centre staff, they are not currently a requirement for this SCQF qualification. However, we encourage trainers and assessors to qualify to the current TAQA standard.

Continuing professional development (CPD)

Centres must support their staff to ensure that they have current knowledge of the occupational area, that delivery, mentoring, training, assessment and verification is in line with best practice, and that it takes account of any national or legislative developments.

Learner entry requirements

City & Guilds does not set entry requirements for this qualification. However, centres must ensure that learners have the potential and opportunity to gain the qualification successfully.

Age restrictions

City & Guilds cannot accept any registrations for learners under 16 as these qualifications are not approved for under 16s.

3 Delivering the qualification

Initial assessment and induction

An initial assessment of each learner should be made before the start of their programme to identify:

- if the learner has any specific training needs,
- support and guidance they may need when working towards their qualification.
- any units they have already completed, or credit they have accumulated which is relevant to the qualification.
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the learner fully understands the requirements of the qualifications, their responsibilities as a learner, and the responsibilities of the centre. This information can be recorded on a learning contract.

Support materials

The following resources are available for this qualification:

Description	How to access
Assessor guidance	**www.cityandguilds.com**
Task manual	**www.cityandguilds.com**
Qualification approval form	**www.cityandguilds.com/construction**
SmartScreen	**www.smartscreen.co.uk**

4 Assessment

Unit	Title	Assessment method	Where to obtain assessment materials
215	Preparing surfaces for decoration	Multiple choice question paper, covering knowledge outcomes. Practical assignment, covering performance outcomes. Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.	**www.cityandguilds.com**
216	Applying paint systems by brush and roller to complex areas	Multiple choice question paper, covering knowledge outcomes. Practical assignment, covering performance outcomes. Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.	**www.cityandguilds.com**

Test specifications

The way the knowledge is covered by each test is laid out in the tables below

Test 3: Unit 215 Preparing surfaces for decoration
Duration: 45 minutes

Unit	Outcome	Number of questions	%
215	1Know how to prepare timbers and timber sheet products ready to receive finishing systems	5	17
	3 Know how to prepare metal surfaces ready to receive finishing systems	3	10
	5 Know how to prepare trowelled finishes and plasterboard ready to receive finishing systems	3	10
	7 Understand how to remove previously painted and prepared surfaces ready to receive finishing systems	6	20
	9 Know how to rectify surface conditions and defects	6	20
	11Understand how to repair and make good surfaces	7	23
	Total	**30**	**100**

Test 4: Unit 216 Applying paint systems by brush and roller to complex areas
Duration: 40 minutes

Unit	Outcome	Number of questions	%
216	1 Understand how to prepare domestic and commercial work areas and protect surrounding areas	6	24
	3 Understand how to prepare and apply water-borne and solvent-borne coatings by brush and roller in line with manufacturer's instructions	13	52
	5 Understand how to clean, maintain and store brushes and rollers in line with manufacturer's instructions	2	8
	7 Understand how to store materials	4	16
	Total	**25**	**100**

5 Units

Structure of units

These units each have the following:

- City & Guilds reference number
- title
- level
- credit value
- unit aim
- learning outcomes which are comprised of a number of assessment criteria

Range explained:

Range gives further scope on what areas within assessment criteria must be covered. The range in a unit **must** be taught to learners and parts of the range will be assessed.

Glossary of terms:

The following key words and terms are used in the units.

Term	Definition
Ball-pien hammer	Small hand held hammer used with nail punches and when placing sprigs in window frames etc
Broom	Sweeping brush
Caulking blades	Refers to caulk boards plastic/stiff rubber
Cherry Pickers	Motor vehicle which has an extendable boom with cage where operatives stand in when painting high points/areas on buildings/bridges etc
Chisel knife	Small 1inch/25mm scraper used to assist operatives removing small drawing pins, staples etc during preparation of surfaces
Curtains	Heavy build up of paint/coating sliding down surface
Drop sheets	Large dust sheets
Making good	Preparing surfaces ready for decoration etc
Paper hanging shears	Paperhanging scissors
Pop ups	Small podium scaffold which can be collapsed down when not in use
Outriggers	Stabilisers on mobile tower scaffolds

Scuttle	Roller bucket
Skid marks	Roller head slides across surface during application of coatings
Starting lines	Starting lines
Swingbacks	Back frame of a step ladder
Wood ingrain	Woodchip paper

Unit 215 Preparing surfaces for decoration

UAN:	A/504/7000
Level:	2
Credit value:	7
GLH:	50
Aim:	To provide the learner with the skills and knowledge required to prepare surfaces for decoration

Learning outcome
The learner will: 1. know how to prepare timbers and timber sheet products ready to receive finishing systems.
Assessment criteria
The learner can: 1.1 identify types of **timbers** and **timber sheet products** used in **construction** 1.2 describe the common found **defects** in **timbers** and **timber sheet products** 1.3 describe **surface** and **physical properties** of **timbers** and **timber sheet products** 1.4 describe **terminology** relating to the properties of **timber** and **timber sheet products** 1.5 describe the correct **preparation process** for rectifying **defects** in untreated and treated **timbers** and **timber sheet products** 1.6 state the appropriate **abrasive** and grade, for the preparation of untreated and treated **timbers** and **timber sheet products** 1.7 state the appropriate solvent-borne and water-borne primer for **timbers** and **timber sheet products** for the finishing systems to be applied 1.8 describe the advantages and disadvantages of solvent-borne and water-borne **primers**.

Range
Timbers Softwood (pine, cedar, spruce) and hardwoods (oak, beech, mahogany). **Timber sheet products** Medium density fibreboard, plywood, hardboard, blockboard. **Construction** Structural, first fix, second fix, decorative

Defects
Knots, resin exudation, end grain, cracks, moisture content, open joints, glue residue, protruding nail heads nail holes.

Surface properties
Tactility, porosity, aesthetics.

Physical properties
Insulation, hardness, strength, flexibility.

Terminology
Absorption, adhesion, capillarity.

Preparation processes
Solvent wiping, dry abrading, knotting, priming, stopping and filling.

Abrasive
Glasspaper, garnet paper, aluminium oxide.

Primers
Solvent borne- alkali, white and pink wood primers, universal-wood/metal, shellac knotting, aluminium wood, water borne – alkali resistance, acrylic, stabilising.

Learning outcome
The learner will: 2. be able to prepare timbers and timber sheet products ready to receive finishing systems.
Assessment criteria
The learner can: 2.1 carry out a **risk assessment** 2.2 select **timber** and **timber sheet products** 2.3 select correct **tools**, **equipment** and **materials** for the method of preparation 2.4 prepare untreated and treated **timbers** and **timber sheet products** using the correct **processes** 2.5 follow current **environmental and relevant health and safety regulations**.

Range
Risk assessment Manual handling, correct access equipment, materials, COSHH, waste and storage of materials, access and egress, PPE, ventilation. **Timbers** Softwood (pine, cedar, spruce) and hardwoods (oak, beech, mahogany). **Timber sheet products** Medium density fibreboard, plywood, hardboard, blockboard. **Tools and equipment** Scrapers, putty knives, chisel knife, knotting brush, punch, hammer, rubbing blocks (rubber, cork, wood), natural and synthetic brushes, short pile and foam rollers, dusting brush, paint pots/kettles, roller trays.

Materials
Solvents, shellac/patent/white knotting, stoppers, single-pack fillers, two- pack fillers.

Processes
Solvent wiping, dry abrading, knotting, priming, stopping and filling.

Environmental and health and safety regulations
Control of Substances Hazardous to Health (COSHH), Volatile Organic Compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, dust inhalation, burns, electrical safety, work at heights regulations, risk assessment, Personal Protective Equipment (PPE).

Learning outcome
The learner will: 3. know how to prepare metal surfaces ready to receive finishing systems.
Assessment criteria
The learner can: 3.1 identify types of metal used in **construction** 3.2 describe **surface** and **physical properties** of different **metal types** 3.3 describe **causes** of **corrosion** on **metal types** 3.4 describe the protective and destructive effects of **corrosion** on metal surfaces 3.5 describe terminology relating to **corrosion** of **metal types** 3.6 describe the **preparation processes** for ferrous and non- ferrous metals 3.7 state the appropriate **primer** for **metal types** 3.8 state the function that **primers** perform on **metal types**.

Range
Construction Structural, first fix, second fix, decorative. **Surface properties** Ferrous, non-ferrous, colour, hardness, porosity, toxicity. **Physical properties** Ferrous and non-ferrous. **Metal types** Ferrous (cast iron, wrought iron, mild sheet, steel) and non-ferrous (copper, aluminium, lead, galvanised steel). **Causes** Oxygen, hydrogen, moisture, atmospheric pollution. **Corrosion**: Surface corrosion, pitting, oxides, millscale, galvanic action, cathodic protection.

Preparation processes
Descaling, degreasing, priming.

Primer
Zinc phosphate, metal primer, etch primer .

Learning outcome
The learner will: 4. be able to prepare metal surfaces ready to receive finishing systems.
Assessment criteria
The learner can: 4.1 identify different **metal types** used in construction 4.2 select correct **tools, equipment** and **materials** for method of **preparation** 4.3 prepare **ferrous** and **non-ferrous** metal 4.4 prime **ferrous** and **non-ferrous** metal 4.5 follow current **environmental and relevant health and safety regulations**.

Range
Metal types Ferrous: cast iron, wrought iron, mild sheet, steel) Non-ferrous: (copper, aluminium, lead, galvanised steel) **Preparation** Hand tools: descaling, degreasing, Power tools: orbital sanders, belt sanders, rotary disc, rotary brush, needle descaling gun. **Tools and equipment** Scrapers, putty knives, chisel knife, knotting brush, punch, hammer, rubbing blocks (rubber, cork, wood), natural and synthetic brushes, short pile and foam rollers, dusting brush, paint pots/kettles, roller trays. **Materials** Degreasing agents, rust removers, mordant solutions, aluminium oxide, emery paper, steel wool, primers (zinc phosphate, single and two-pack etch primers, water-borne primers). **Environmental and health and safety regulations** Control of Substances Hazardous to Health (COSHH), Volatile Organic Compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, dust inhalation, burns, electrical safety, work at heights regulations, risk assessment, Personal Protective Equipment (PPE).

Learning outcome
The learner will: 5. know how to prepare trowelled finishes and plasterboard ready to receive finishing systems.
Assessment criteria
The learner can: 5.1 identify **defects** associated with **surface types** 5.2 describe **physical** and **chemical properties** of **surface types** 5.3 describe **applications** of different **surface types** 5.4 describe effects of moisture on different **surface types** 5.5 describe the **process** for rectifying **defects** 5.6 describe the preparation of surfaces, according to the finish required 5.7 state the appropriate **primers**, to be used on different **surface types** prior to applying paper.

Range
Defects Settlement cracks, dry out, shrinkage, cracks, nail heads, open joints, efflorescence. **Surface types** Gypsum plaster, plasterboards (square and feather edged), blockwork, brickwork. **Physical properties** Tactility, porosity, capillarity, adhesion. **Chemical properties** Alkalinity, acidity, inertness, soluble salt content. **Applications** Dry lining, structural, surface finishing, internal/external. **Process** Raking out, wetting in, making good, abrading, scraping, caulking, taping, proud filling, flush filling, degreasing. **Primers** Alkali Resisting Primer (ARP), primer sealer, emulsion.

Learning outcome
The learner will: 6. be able to prepare trowelled finishes and plasterboard ready to receive finishing systems.
Assessment criteria
The learner can: 6.1 select correct processes for rectifying **defects** of trowelled finishes 6.2 select correct **preparation processes** for **surface types** 6.3 select appropriate **tools, equipment** and **materials** for the method of preparation 6.4 prepare different **surface types**, to receive **finishes** 6.5 follow current **environmental and relevant health and safety regulations**.

Range
Defects Cracks, dry out, shrinkage, cracks, nail heads, open joints, defective pointing. **Preparation process** Raking out, wetting in, making good, abrading, scraping, caulking, taping, proud filling, flush filling, degreasing. **Surface types** Gypsum plaster, new or existing plasterboards (square and feather edged), blockwork, brickwork. **Tools and equipment** Scrapers, filling knives, filling board, hawk and trowel, caulking blades, roller trays, natural and synthetic brushes, woven fabric rollers, buckets. **Materials** Plaster-based fillers, joint fillers, joint tapes, reinforced corner tapes, abrasives, degreasing agents, stabilising solutions, water-borne primers, sizes, solvent-borne primers (alkali resisting primer). **Finishes** Paint (solvent-borne, water-borne), paper. **Environmental and relevant health and safety regulations** Control of Substances Hazardous to Health (COSHH), Volatile Organic Compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, dust inhalation, burns, electrical safety, work at heights regulations, risk assessment, Personal Protective Equipment (PPE).

Learning outcome
The learner will: 7. understand how to remove previously painted and papered surfaces ready to receive finishing systems.
Assessment criteria
The learner can: 7.1 explain reasons for protecting the work area prior to removing paper 7.2 explain the importance of removing **defective** paint and papers, prior to redecoration 7.3 state the correct **removal method** of surface coating from **substrates** 7.4 describe the reason for decontaminating surfaces following the use of liquid paint removers 7.5 describe safety precautions required when carrying out **removal processes** 7.6 state **health and safety factors** relating to hot work 7.7 describe the different methods of removing over-painted and peelable papers 7.8 explain the significance of the starting point and soaking time when removing papers 7.9 describe correct method of stripping and disposing of paper contaminated with mould 7.10 explain correct method of storing **tools and equipment**.

Range
Defective Blistering, cracking or crazing, flaking, excessive film thickness, peeling, mould, redecoration. **Removal method/processes** Liquid paint removing, electric hot-air, LPG burning off, hand soaking, steam stripping. **Substrates** Timbers, ferrous metals, non-ferrous metals, plaster, plasterboard, glazed products. **Health and safety factors** Water, steam, electricity, naked flame. **Tools and equipment** Scrapers, chisel knife, shave hooks, metal containers, fibre brush, wall brush, electric, hot-air gun, transformer, extension cable, steam stripper, fire extinguisher, non-combustible panel, LPG burning-off equipment, polythene sheets, dust sheets.

Learning outcome
The learner will: 8. be able to remove previously painted and papered surfaces ready to receive finishing systems.
Assessment criteria
The learner can: 8.1 select, set up and check electric hot-air guns and steam strippers 8.2 protect work area prior to and during removal of paint and paper 8.3 remove previously applied coatings using **liquid paint removers and hot air steam strippers** 8.4 remove over-painted papers and peelable papers using steam stripping and hand soaking methods 8.5 check stripped surfaces are free from liquid paint remover, paint, paper and paste 8.6 dispose of removed paint and paper 8.7 follow current **environmental and relevant health and safety regulations**.

Range
Liquid paint removers and hot air steam strippers Water-based and solvent-based. **Environmental and relevant health and safety regulations** Control of Substances Hazardous to Health (COSHH), Volatile Organic Compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, dust inhalation, burns, electrical safety, work at heights regulations, risk assessment, Personal Protective Equipment (PPE), lead paint regulations.

Learning outcome
The learner will: 9. know how to rectify surface conditions and defects.
Assessment criteria
The learner can: 9.1 identify types of **surface conditions** 9.2 state the **causes** of **surface defects** 9.3 describe how to rectify **surface conditions** 9.4 state how **surface** defects and **conditions** can be avoided 9.5 describe **cleaning agents** and methods used for removing contamination 9.6 state methods of testing for solvent-borne or water-borne coating 9.7 state **defects** for which wet abrading is a suitable process of preparation 9.8 identify defects of paint systems on **timber** and **timber product sheets** 9.9 state causes of paint defectives on **timber** and **timber product** 9.10 describe possible reasons for unsound paint on ferrous and non-ferrous **metals** 9.11 describe health and safety precautions to be applied when preparing unsound surface conditions.

Range
Surface conditions (AC9.1, 9.4) Efflorescence, moss and lichen, moulds and fungi, contamination (dirt, grease, silicone, wax polish, carbon/smoke), friable **Causes** Efflorescence, moss and lichen, moulds and fungi, contamination (dirt, grease, silicone, wax polish, carbon/smoke), friable. **Surface defects** Saponification, cissing, discolouration, slow or non-drying surface coating, bleeding (resin, nicotine, bitumen), chalking and powdering, loss of gloss, wrinkling or shrivelling, cracking or crazing, flaking, blistering, bittiness, runs, sags or curtains, missing facing putties. **Surface conditions (AC9.3)** Scraping, wet and dry abrading, brushing, washing down, degreasing, solvent wiping, washing down for a finish, face putty, hand tools, powered tools. **Cleaning agents** Solvents (white spirit, methylated spirit, acetone), detergents, sugar soap. **Timber** Softwood (pine, cedar, spruce) and hardwoods (oak, beech, mahogany). **Timber product** Medium density fibreboard, plywood, hardboard, blockboard. **Metals** Ferrous (cast iron, wrought iron, mild sheet, steel) and non-ferrous (copper, aluminium, lead, galvanised steel).

Learning outcome
The learner will: 10. be able to rectify surface conditions.
Assessment criteria
The learner can: 10.1 select correct **tools, equipment** and **materials** for the **rectification processes** 10.2 select appropriate **cleaning agent** for contaminated **surfaces** 10.3 rectify **surface** conditions 10.4 follow current **environmental and relevant health and safety regulations**.

Range
Tools and equipment: Scrapers, wire brushes, stiff scrubbing brushes, buckets, sponges, orbital sander, lint-free cloths, palm sander, dusting brush, rubbing blocks (rubber, cork wood), knotting brush, wall brush.

Materials
Sterilising fluids, fungicidal washes, sugar soap, primers and sealers (alkali resisting, aluminium wood, acrylic, stabilising solutions), solvents (white spirit, methylated spirits), shellac and patent knotting, stain blocks (proprietary and non-proprietary).

Rectification processes
Scraping, wet and dry abrading, brushing, washing down, degreasing, solvent wiping, washing down for a finish, face putty, hand tools, powered tools.

Cleaning agent
Solvents (white spirit, methylated spirit, acetone), detergents, sugar soap.

Surface
Dirt, grease, silicone, wax polish.

Environmental and health and safety regulations
Control of Substances Hazardous to Health (COSHH), Volatile Organic Compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, dust inhalation, burns, electrical safety, work at heights regulations, risk assessment, Personal Protective Equipment (PPE).

Learning outcome

The learner will:

11. know how to repair and make good surfaces.

Assessment criteria

The learner can:

11.1 describe reasons for cracks in plaster and how they occur

11.2 explain the stages involved in the process of **repairing and making good cracks in plaster**

11.3 describe the effects of heat and moisture on plaster

11.4 state filler used for making good open grained timber

11.5 describe the method for making good open grained timber and the correct abrasive to use

11.6 state tools required when using stoppers

11.7 describe how to use **stoppers and fillers**

11.8 describe safety precautions required when applying stoppers.

Range

Repairing and making good cracks in plaster
Scraping, raking out, undercutting, wetting in, back filling, proud filling, flush filling, dry abrading.

Stoppers and fillers
Putty, plastic woods, two-pack, coloured stoppers, flexible fillers, powdered filler, interior/exterior filler, ready-mixed filler.

Learning outcome
The learner will: 12. be able to repair and make good surfaces.
Assessment criteria
The learner can: 12.1 protect work area prior to and during **repairing and making good surfaces** 12.2 prepare **materials** required for repairing and making good surfaces 12.3 select correct **tools, equipment** and **materials** for repairing and making good surfaces 12.4 prepare **defective areas** for **repairing and making good surfaces** 12.5 apply and finish **materials** for repairing and **making good surfaces** 12.6 follow current **environmental and relevant health and safety regulations.**

Range
Repairing and making good scraping, sinking nail heads, raking out, undercutting, wetting in, back filling, proud filling, flush filling, stopping, applying caulk and sealants, spot prime and seal, wet and dry abrading, wash down. **Tools and equipment** Scraper, putty knife, chisel knife, shavehooks, filling knife/blade, filling board, dusting brush, craft knife, cartridge gun/cage, sponge, bucket, wetting-in brush, nail punch, ball pein hammer, caulking blades, rubbing blocks, pole sander. **Materials** Fill, stop, caulk. **Surfaces** Types – timber, brickwork, plaster, plasterboard and areas – ceilings, walls, doors, windows (frames and glazed units), timber trim (skirting / architrave). **Defective areas** Open joints in joinery, splits, indentations, open grained timber, defective putties, holes, cracks (settlement, shrinkage), defective plasterboard joints, blown plaster and render, gaps, defective pointing. **Environmental and health and safety regulations** Control of Substances Hazardous to Health (COSHH), Volatile organic compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, dust inhalation, burns, electrical safety, work at heights regulations, risk assessment, Personal Protective Equipment (PPE).

Unit 216 Applying paint systems by brush and roller to complex areas

UAN:	K/505/0927
Level:	2
Credit value:	6
GLH:	50
Aim:	To provide the learner with the skills and knowledge required to apply paint systems by brush and roller for complex areas .

Learning outcome
The learner will: 1. understand how to prepare domestic and commercial work areas and protect surrounding areas.
Assessment criteria
The learner can: 1.1 describe factors to consider when preparing **domestic** and **commercial** work areas 1.2 explain the importance of protecting surrounding areas 1.3 compare types of **masking tape** and their use 1.4 describe the process for applying and removing **masking tape** 1.5 state the correct maintenance and storage requirements for **protective sheeting**.

Range
Domestic Room furniture, floor/carpets, door and window furniture, wall-mounted fixtures and fittings, Television, media. **Commercial** Public access to premises, lighting, climate/weather, temperature, ventilation, workstations, machinery, equipment, furniture. **Masking tape** Exterior, interior, low-tack, 7-day. **Protective sheeting** Polythene sheets, dust sheets (lightweight, protective backing, heavy duty), drop sheets, tarpaulin, adhesive, plastic covering.

Learning outcome
The learner will: 2. be able to prepare domestic and commercial work areas and protect surrounding areas.
Assessment criteria
The learner can: 2.1 select correct **materials**, **tools and equipment** needed to protect work and **surrounding area** 2.2 **prepare domestic** and **commercial** work and **surrounding areas** 2.3 protect **surrounding areas**, furniture and fittings and surfaces ready for painting 2.4 remove furniture and fittings 2.5 follow current **environmental and relevant health and safety regulations**.

Range
Materials Dust sheets (lightweight, protective backing, heavy duty), polythene sheets, tarpaulin, drop sheets, tapes, adhesive. **Tools and equipment** Signs, barriers, pliers, screwdrivers (slotted, cross-head, posidrive), claw hammer, brushes, broom, shovels, security bits. **Personal protective equipment (PPE)** Protective gloves, dust masks, goggles, boots, hard hat, high visibility jacket, barrier cream. **Surrounding areas** Door and window furniture, wall/ceiling mounted fixtures and fittings, floor/carpets, office equipment, television, media, furniture and fittings. **Prepare** Clear area, clean area, place protective materials. **Domestic** Room furniture, floor/carpets, door and window furniture, wall-mounted fixtures and fittings, Television, media. **Commercial** Public access to premises, lighting, climate/weather, temperature, ventilation, workstations, machinery, equipment, furniture. **Environmental and Health and Safety Regulations** Control of Substances Hazardous to Health (COSHH), Volatile organic compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, dust inhalation, burns, electrical safety, work at heights regulations, risk assessment, personal protective equipment (PPE).

Learning outcome
The learner will: 3. understand how to prepare and apply water-borne and solvent-borne coatings by brush and roller in line with manufacturer's instructions to complex areas.
Assessment criteria
The learner can: 3.1 describe **component parts** of brushes and rollers 3.2 explain reasons for selecting **application tools** for **surface coatings** 3.3 describe reasons for preparing **surface coatings** 3.4 state **properties** of **surface coatings** 3.5 describe **drying processes** and **stages** 3.6 describe how **atmospheric conditions** may affect the drying process 3.7 describe the sequence of painting a **room area and components** and reasons for the sequence 3.8 describe causes and remedies of **application defects** 3.9 explain causes and remedies of **post-application defects**.

Range
Component parts Handle, stock, ferrule, setting, filling, frame/yoke, sleeve, extension pole. **Application tools** Rollers with sleeves of synthetic filament, woven pile, woven fabric, mohair, lambswool, short, medium, long pile; brushes in natural bristle, synthetic filament. **Surface coatings** (Interior, exterior, pigmented, non-pigmented) with finishes in matt, mid-sheen, silk, eggshell, gloss; solvent-borne types matt, eggshell, semi-gloss gloss; systems (interior and exterior) for timber, metal (ferrous, non-ferrous micro-porous, thixotropic, wood treatments (water-borne and solvent-borne): stains, preservatives. **Properties** **Water-borne** Film former, pigment and extender, dispersant/emulsifier, additives (anti-frothing agent, water, biocides), solvent/thinner. **Drier solvent-borne** Film former, pigment, solvent/thinner, driers, additives micro-porous, thixotropic. **Drying processes** **Water-borne** Evaporation, coalescence, oxidation. **Solvent-borne** Vaporation, oxidation, polymerisation.

Stages
Flow, set, tack, touch dry, hard dry, thorough dry.
Atmospheric conditions
Hot air, cold air, draughts, direct sunlight, lack of light, humidity.

Room areas and components
Broad areas, ceilings, flush doors, panel door, windows, linear work.

Application defects
Bittiness, misses, grinning, runs and, sags, excessive brushmarks and ropiness, fat edges and wet edge build-up, paint on adjacent surfaces, roller edge marks and roller skid marks, irregular cutting in.

Post-application defects
Retarded drying, cratering, bleeding, blooming, loss of gloss, fading, discolouration, yellowing, cracking/crazing, flaking/peeling.

Learning outcome
The learner will: 4. be able to prepare and apply water-borne and solvent-borne coatings by brush and roller to complex areas in line with manufacturer's instructions.
Assessment criteria
The learner can: 4.1 Select **application tools and equipment** appropriate to work 4.2 prepare **surface coatings** 4.3 apply **surface coatings** in the correct sequence, to **complex areas** 4.4 cut in by brush to angles and obstructions correctly and accurately to complex areas 4.5 follow current **environmental and relevant health and safety regulations**.

Range
Application tools Brushes: (must use): natural bristle, synthetic filament. Select two of the following measurements: • 12mm • 25mm • 50mm • 75mm • 100mm. Select two of the following rollers: • rollers with sleeves of synthetic filament • woven pile • woven fabric • mohair • lambswool • short

- medium
- long pile.

Equipment
Roller cages, paint stirrers, strainers, paint pots, extension poles, buckets, scuttles, trays, dust sheets.

Personal Protective Equipment (PPE)
As per organisation requirements.
Protective gloves, dust masks, goggles, boots, hard hat, high visibility jacket, barrier cream.

Surface coatings
Water-borne
Primers and undercoats, glosses, egg-shells, emulsions, stains and varnishes.
Solvent borne
Primers and undercoats, glosses, stains and varnishes.

Complex Areas
Ceilings, broad areas, linear work, panel door, ferrous, non-ferrous metal, windows, flush doors.

Environmental and Health and Safety Regulations
Control of Substances Hazardous to Health (COSHH), Volatile organic compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, dust inhalation, burns, electrical safety, work at heights regulations, risk assessment, personal protective equipment (PPE).

Learning outcome
The learner will: 5. understand how to clean, maintain and store brushes and rollers in line with manufacturer's Instructions.
Assessment criteria
The learner can: 5.1 describe different methods of cleaning **tools and equipment** 5.2 explain the difference in cleaning and storage requirements for **roller sleeves** and brushes.

Range
Tools and equipment Rollers with sleeves of synthetic filament, woven pile, woven fabric, mohair, lambswool, short, medium, long pile; brushes in natural bristle, synthetic filament. **Roller sleeves** Sheepskin/lambswool, woven fabric, mohair, short/medium/long pile, foam.

Learning outcome
The learner will: 6. be able to clean, maintain and store brushes and rollers in line with manufacturer's instructions.
Assessment criteria
The learner can: 6.1 clean tools, equipment, **brushes and rollers** 6.2 maintain and store **brushes and rollers** in line with manufacturer's instructions 6.3 follow current **environmental and health and safety regulations**.

Range
Brushes: (must use): natural bristle, synthetic filament. Select two of the following measurements: • 12mm • 25mm • 50mm • 75mm • 100mm. Select two of the following rollers: • rollers with sleeves of synthetic filament • woven pile • woven fabric • mohair • lambswool • short, medium, long pile • foam. **Environmental and Health and Safety Regulations** Control of Substances Hazardous to Health (COSHH), Volatile organic compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, dust inhalation, burns, electrical safety, work at heights regulations, risk assessment, personal protective equipment (PPE).

Learning outcome
The learner will: 7. understand conditions for storing paint materials.
Assessment criteria
The learner can: 7.1 describe the correct storage conditions for **paint materials** 7.2 explain the purpose of stock rotation 7.3 describe the appearance, causes and remedies of storage **defects**.

Range
Paint materials Water-borne coatings, solvent-borne coatings, two-packs. **Defects** Fattening, livering, settling, skinning.

Learning outcome
The learner will: 8. be able to store materials in accordance with COSHH data sheets.
Assessment criteria
The learner can: 8.1 store **materials** in accordance with COSHH data sheets 8.2 check stock rotation of materials 8.3 follow current **environmental and health and safety regulations**.

Range
Materials Water-borne coatings, solvent-borne coatings, two- packs. **Environmental and Health and Safety regulations** Control of Substances Hazardous to Health (COSHH), Volatile organic compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, dust inhalation, burns, electrical safety, work at heights regulations, risk assessment, personal protective equipment (PPE).

Appendix 1 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on **www.cityandguilds.com**.

Centre Manual - Supporting Customer Excellence contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification, as well as updates and good practice exemplars for City & Guilds assessment and policy issues. Specifically, the document includes sections on:

- The centre and qualification approval process
- Assessment, internal quality assurance and examination roles at the centre
- Registration and certification of candidates
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Management systems
- Maintaining records
- Assessment
- Internal quality assurance
- External quality assurance.

Access to Assessment & Qualifications provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The **centre homepage** section of the City & Guilds website also contains useful information on such things as:

- **Walled Garden**: how to register and certificate candidates on line
- **Events**: dates and information on the latest Centre events
- **Online assessment**: how to register for e-assessments.

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www.cityandguilds.com

Useful contacts

International learners General qualification information	T: +44 (0)844 543 0033 F: +44 (0)20 7294 2413 E: **intcg@cityandguilds.com**
Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: **centresupport@cityandguilds.com**
Single subject qualifications Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 F: +44 (0)20 7294 2404 (BB forms) E: **singlesubjects@cityandguilds.com**
International awards Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: **intops@cityandguilds.com**
Walled Garden Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: **walledgarden@cityandguilds.com**
Employer Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	T: +44 (0)121 503 8993 E: **business@cityandguilds.com**
Publications Logbooks, Centre documents, Forms, Free literature	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413

If you have a complaint, or any suggestions for improvement about any of the services that we provide, email:
feedbackandcomplaints@cityandguilds.com

About City & Guilds

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. We offer over 500 qualifications across 28 industries through 8500 centres worldwide and award around two million certificates every year. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

City & Guilds Group

The City & Guilds Group operates from three major hubs: London (servicing Europe, the Caribbean and Americas), Johannesburg (servicing Africa), and Singapore (servicing Asia, Australia and New Zealand). The Group also includes the Institute of Leadership & Management (management and leadership qualifications), City & Guilds Licence to Practice (land-based qualifications), the Centre for Skills Development (CSD works to improve the policy and practice of vocational education and training worldwide) and Learning Assistant (an online e-portfolio).

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