Diplomas in Painting and Decorating at SCQF Level 5 (6807-23/50)

February 2016 Version 2

City&
Guilds

Qualifications 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
Diploma in Painting and Decorating at SCQF Level 5	6807-23
Extended Diploma in Painting and Decorating at SCQF Level 5	6807-50

Version and date	Change detail	Section
1.2 January 2015	Amendments to the test specification for unit 215	Test specification
V2 February 2016	Unit 201 amended	Units
	City & Guilds group statement amended	Useful contacts
	Phone numbers deleted	Useful contacts

Contents

1   Introduction

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

Area	Description
Who are the qualifications for?	They are for learners who work or want to work as a Painter and Decorator in the Construction sector.
What do the qualifications cover?	They allow learners to learn, develop and practise the skills required for employment and/or career as a painter and decorator. They cover the following skills: • Erecting and Dismantling Access Equipment and Working Platforms • Preparing Surfaces for Decoration • Applying Paint Systems by Brush and Roller to complex areas • Applying standard wallpapers and hangings Foundation • Producing Specialist finishes for decorative work • Applying and Creating Colour
Are the qualifications parts of a framework or initiative?	The Diploma is a technical certificate within the Construction Building Apprenticeship Framework.
What opportunities for progression are there?	It allows learners to progress into employment or to the following City & Guilds qualification: Diploma in Painting and Decorating at SCQF Level 6

Structure

To achieve the **Diploma in Painting and Decorating at SCQF Level 5 (6807-23),** learners must achieve **52** credits from the mandatory units below.

City & Guilds unit no.	Unit title	Credit value
201	Health, safety and welfare in construction	7
202	Principles of building construction, information and communication	6
215	Preparing surfaces for decoration	7
216	Applying paint systems by brush and roller to complex areas	6
217	Applying standard papers to walls and ceilings	11
218	Producing specialist finishes for decorative work	8
220	Erecting and dismantling access equipment and working platforms	3
230	Creating and applying colour	4

To achieve the **Extended Diploma in Painting and Decorating at SCQF Level 5 (6807-50),** learners must achieve all **86** credits from the mandatory units below.

City & Guilds unit no.	Unit title	Credit value
201	Health, safety and welfare in construction	7
202	Principles of building construction, information and communication	6
101	Principles of building construction, information and communication	6
116	Erecting and dismantling access equipment and working platforms	2
117	Preparing surfaces for decoration	7
118	Applying paint systems by brush and roller to non-complex areas	9
119	Applying foundation and plain papers	7
120	Producing specialist decorative finishes	3
215	Preparing surfaces for decoration	7
216	Applying paint systems by brush and roller to complex areas	6
217	Applying standard papers to walls and ceilings	11
218	Producing specialist finishes for decorative work	8
220	Erecting and dismantling access equipment and working platforms	3
230	Creating and applying colour	4

Please Note the Extended Diploma is for learners starting an Apprenticeship at SCQF Level 5.

Information for the SCQF Level 4 units can be found in the SCQF Level 4 Painting and Decorating handbook.

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) these qualifications 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 these qualifications 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 these SCQF qualifications. 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 these qualifications. However, centres must ensure that learners have the potential and opportunity to gain the qualifications 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 these qualifications:

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
201	Health, safety and welfare in construction	City & Guilds e-volve multiple choice test. The test covers all of the knowledge in the unit.	Examinations provided on e-volve.
202	Principles of building construction, information and communication	City & Guilds e-volve multiple choice test. The test covers all of the knowledge in the unit.	Examinations provided on e-volve.
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**

Unit	Title	Assessment method	Where to obtain assessment materials
217	Applying standard papers to walls and ceilings	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**
218	Producing specialist finishes for decorative work	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**
220	Erecting and dismantling access equipment and working platforms	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**

Unit	Title	Assessment method	Where to obtain assessment materials
230	Creating and applying colour	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 1:   Unit 201 Health, safety and welfare in construction
Duration: 60 minutes

Unit	Outcome	Number of questions	%
201	1 Know the health and safety regulations, roles and responsibilities	7	17.5
	2 Know accident and emergency reporting procedures and documentation	5	12.5
	3 Know how to identify hazards in the workplace	7	17.5
	4 Know about health and welfare in the workplace	3	7.5
	5 Know how to handle materials and equipment safely	2	5
	6 Know about access equipment and working at heights	3	7.5
	7 Know how to work with electrical equipment in the workplace	4	10
	8 Know how to use personal protective equipment (PPE)	5	12.5
	9 Know the cause of fire and fire emergency procedures	4	10
	Total	**40**	**100**

Test 2:   Unit 202 Principles of building construction, information and communication

Duration: 80 minutes

Unit	Outcome	Number of questions	%
202	1 Understand how to select types of building information	5	12.5
	2 Know about environmental considerations in relation to construction	5	12.5
	3 Understand the construction of foundations	7	17.5
	4 Understand construction of internal and external walls	9	22.5
	5 Know about construction of floors	4	10
	6 Know about construction of roofs	3	7.5
	7 Understand how to communicate in the workplace	7	17.5
	Total	**40**	**100**

Test 3:   Unit 215 Preparing surfaces for decoration

Duration: 45 minutes

Unit	Outcome	Number of questions	%
215	1 Know 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
	11 Understand 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**

Test 5: Unit 217 Applying standard papers to walls and ceilings

Duration: 50 minutes

Unit	Outcome	Number of questions	%
217	1Understand methods used in wallpaper production	7	23
	2 know how to select and prepare adhesives	4	13
	4 Understand how to apply papers to ceilings and walls	18	58
	6 understand how to store materials	2	6
	Total	**31**	**100**

Test 6: Unit 218 Producing specialist finishes for decorative work
Duration: 45 minutes

Unit	Outcome	Number of questions	%
218	2 Understand how to produce broken colour effect using water-borne and solvent-borne scumbles	11	39
	4 Understand how to prepare stencil plates from given design and apply stencils	6	22
	6 Understand how to produce wood and marble effects using basic techniques	11	39
	Total	**28**	**100**

Test 7: Unit 220 Erecting and dismantling access equipment and working platforms
Duration: 30 minutes

Unit	Outcome	Number of questions	%
220	1Understand the preparation required for using access equipment and working platforms	4	20
	3 Understand how to check access equipment and identify faults	8	40
	5 Understand how to erect access equipment and working platforms	6	30
	7 Understand how to dismantle and store components	2	10
	Total	**20**	**100**

Test 8:   Unit 230 Creating and applying colour
Duration: 40 minutes

Unit	Outcome	Number of questions	%
230	1Understand the colours required to create a colour wheel	10	39
	3 Understand colour organisational systems and terminology used in industry	11	42
	4 Understand the effects that artificial light has on colour	5	19
	Total	**26**	**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

Health, safety and welfare in construction

Level:	5
Credit value:	7
Aim:	The aim of this unit is to provide the learner with the knowledge to carry out safe working practices in construction, in relation to sourcing relevant safety information and using the relevant safety procedures at work

Learning outcome
The learner will:
1.   know the health and safety regulations, roles and responsibilities
Assessment criteria
The learner can:
1.1   identify **health and safety legislation** relevant to and used in the construction environment
1.2   state **employer and employee responsibilitie**s under the Health and Safety at Work Act (HASWA)
1.3   state **roles and responsibilities** of the Health and Safety Executive (HSE)
1.4   identify **organisations** providing relevant health and safety information
1.5   state the importance of holding on-site safety inductions and toolbox talks.

Range
Health and safety legislation
Health and Safety at Work Act, Reporting Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR), Control of Substances Hazardous to Health (COSHH), Construction, Design and Management (CDM) regulations , Provision and Use of Work Equipment Regulations (PUWER), manual handling operations Regulations, Personal Protective Equipment (PPE) at Work Regulations, Work at Height Regulations, Control of Noise at Work Regulations, Control of Vibration at Work Regulations , Electricity at Work Regulations, Lifting operations and Lifting Equipment Regulations (LOLER)
Employer responsibilities
Safe working environment, adequate staff training, health and safety information, site inductions, toolbox talks, risk assessment, supervision, PPE, reporting hazards, accidents and near misses, sections 2 to 9 of Health and Safety at Work Act, CDM reg's, construction phase plans,

welfare, display public liability Insurance and health and safety law poster.

Employee responsibilities

Working safely, working in partnership with the employer, reporting hazards, accidents and near misses, following organisational procedures as per Sections 2 to 9 of Health and Safety at Work Act.

Roles and responsibilities:

Enforcement (including fees for intervention), legislation and advice, inspection, investigation eg site investigations.

Organisations

Health and Safety Executive (HSE) website, Institute of Occupational Safety and Health, British Safety Council, 'manufacturer', ROSPA.

Learning outcome
The learner will: 2. know accident and emergency reporting procedures and documentation
Assessment criteria
The learner can: 2.1   state legislation used for reporting accidents 2.2   state major **types of emergencies** that could occur in the workplace 2.3   identify reportable injuries, diseases and dangerous occurrences as per RIDDOR 2.4   state main types of **records** used in the event of an accident, emergency and near miss and reasons for reporting them 2.5   identify **authorised personnel** involved in dealing with accident and emergency situations 2.6   state **actions** to take when discovering an accident.

Range
Types of emergencies Fires, security incidents, gas leaks. **Records**: Accident book, first aid records, organisational records and documentation. **Authorised personnel** First aiders, supervisors/managers, health and safety executive, emergency services, safety officer. **Actions** Area made safe, call for help, emergency services.

Learning outcome
The learner will:
3. know how to identify hazards in the workplace

Assessment criteria
The learner can:
3.1   state the importance of **good housekeeping**
3.2   state reasons for risk assessments and method statements
3.3   identify **types of hazards** in the workplace
3.4   state the importance of the correct storage of combustibles and chemicals on site
3.5   identify different **signs and safety notices** used in the workplace.

Range
Good housekeeping:
Cleanliness, tidiness, use of skips and chutes, segregation of materials, clear access to fire escapes, clear access to fire extinguishers.
Types of hazards:
Fires, slips, trips and falls, hazardous substances (relating to inhalation, absorption, exposure, ingestion, cross-contamination), electrical, asbestos, manual handling, plant and vehicle movement, adverse weather.
Signs and safety notices:
Prohibition, mandatory, warning, safe condition, supplementary.

Learning outcome
The learner will:
4. know about health and welfare in the workplace

Assessment criteria
The learner can:
4.1   identify requirements for welfare facilities in the workplace as per Construction Design Management (CDM)
4.2   state health effects of noise and **precautions** that can be taken
4.3   state **risks** associated with drugs, alcohol and medication which could affect performance in the workplace.

Range
Precautions
Reducing noise at source, PPE, isolation, exposure time.
Risks
Reduced risk perception, loss of concentration, balance problems, absenteeism and reduced productivity.

Learning outcome
The learner will:
5. know how to handle materials and equipment safely
Assessment criteria
The learner can:
5.1 identify legislation relating to safe handling of materials and equipment
5.2 state procedures for safe lifting and manual handling activities in accordance with guidance and legislation
5.3 state the importance of using **lifting aids** when handling materials and equipment.

Range
Lifting aids
Wheelbarrow, sack barrow, mechanical lifting aids, pallet truck.

Learning outcome
The learner will:
6. know about access equipment and working at heights
Assessment criteria
The learner can:
6.1 identify legislation relating to working at heights
6.2 identify types of **access equipment**
6.3 state **safe methods** of use for **access equipment**
6.4 identify **dangers** of working at height.

Range
Access equipment:
Stepladders, ladders (pole, extension), trestles, hop-ups, proprietary scaffolding, podium, stilts
Safe methods
Regular inspection, check for broken, damaged or missing components, responsible use, consideration of adverse weather conditions, good housekeeping
Dangers
Falling tools, falling equipment, falling materials, persons falling from height (injuries to themselves and others).

Learning outcome
The learner will:
7.   know how to work with electrical equipment in the workplace
Assessment criteria
The learner can:
7.1   state **precautions** to take to avoid risks to self and others when working with electrical equipment
7.2   state **dangers** of using electrical equipment
7.3   identify **voltages** and voltage colour coding that are used in the workplace
7.4   state **methods** of storing electrical equipment.

Range
Precautions
Check leads, check plugs, use of cable hangers, check tools and equipment, current valid PAT certificate
Dangers:
Burns, electrocution, fire.
Voltages
Battery powered, 110/115 volts, 230/240 volts and 415 volts.
Methods
Components present, equipment cleaned, checked for damage, stored in a clean and secure location.

Learning outcome
The learner will:
8.   know how to use Personal Protective Equipment (PPE)
Assessment criteria
The learner can:
8.1   state the legislation governing use of Personal Protective Equipment (PPE)
8.2   state **types of PPE** used in the workplace
8.3   state the importance of PPE
8.4   state why it is important to store, maintain and use PPE correctly
8.5   state the importance of checking and reporting damaged PPE.

Range
PPE:
Head protection, eye protection, ear protection, face/dust masks, breathing apparatus, high visibility clothing, safety footwear, gloves, sun protection, barrier cream, water proofs, knee pads, overalls/disposable clothing

Learning outcome
The learner will:
9. know the cause of fire and fire emergency procedures
Assessment criteria
The learner can:
9.1 state **elements** essential to creating a fire
9.2 identify methods of fire prevention
9.3 state actions to be taken on discovering a fire
9.4 state **types of fire extinguishers** and their uses.

Range
Elements
Oxygen, fuel, heat.
Types of fire extinguishers:
Water, foam, CO2, dry powder.

Unit 202 Principles of building construction, information and communication

Level:	5
Credit value:	6
Aim:	The aim of this unit is to provide the learner with the knowledge of building methods and construction technology in relation to: • understanding a range of building materials used within the construction industry and their suitability to the construction of modern buildings. • source relevant information and apply it to relevant tasks • calculating the resources from required drawings and specifications.

Learning outcome
The learner will: 1. understand how to select types of building information.

Assessment criteria
The learner can: 1.1 interpret **information sources** used in construction 1.2 interpret scale, **symbols and hatchings** on a working drawing 1.3 explain the purpose of **benchmarks** used in construction.

Range
Information sources: Drawings , schedules, specifications, programme of work, organisational chart, method statements, risk assessment, manufacturers' technical information, bill of quantities, order requisitions, delivery notes, variation orders, permits to work, signs and notices. **Symbols** WC, sink, bath, door, window **Hatchings** Brickwork, timber (wrot and unwrot), blockwork, concrete, hardcore, sub soil, insulation, damp proof course (DPC), damp proof membrane (DPM) **Benchmarks** Site datums, temporary bench marks (TBM), ordnance bench marks (OBM).

Learning outcome
The learner will:
2. know about environmental considerations in relation to construction.

Assessment criteria
The learner can:
2.1 describe thermally insulated **materials**
2.2 describe **methods** of making buildings water efficient
2.3 describe **methods** of making buildings energy efficient
2.4 state environmental-friendly **building materials**
2.5 state **procedures** for waste management.

Range
Materials
Polyisocyanurate (PIR), Expanded Polystyrene (EP), fibre glass, mineral wool, double glazed units, multi-foil insulation.
Methods (2.2)
Efficient sanitary ware, water harvesting.
Methods (2.3)
Low energy lighting, automatic movement sensors, solar panels, wind turbines, heat source, biomass heating.
Building materials:
Locally sourced, managed timber (FSC), lime, sheep wool, recycled materials, straw.
Procedures:
Segregation and recycling of waste, safe disposal of hazardous materials, Local Exhaust Ventilation (LEV).

Learning outcome
The learner will:
3. understand the construction of foundations.

Assessment criteria
The learner can:
3.1 describe **factors** to be considered when selecting **foundations**
3.2 describe **materials** and mix-ratios used in concrete foundations
3.3 explain how to **set out** foundations
3.4 explain **factors** to consider when excavating foundations
3.5 describe methods of transferring datums
3.6 calculate the volume of concrete used in pile foundation.

Range
Factors (3.1) Ground conditions (subsoil), strength, types of building .
Foundations Strip, raft, pile, pad.
Materials: Course aggregate, fine aggregate, cement, water, steel reinforcement, sulphate-resisting cement, ordinary portland cement, frost proofing, accelerators, retardants.
Set out: 3:4:5 method, diagonals, profiles, builder's square.
Factors (3.4) Underground services, proximity to neighbouring buildings, tree roots, ground conditions.
Methods: Optical/laser level, straight edge and spirit level

Learning outcome
The learner will: 4.   understand construction of internal and external walls.

Assessment criteria
The learner can: 4.1   describe **wall components** 4.2   explain the importance of a Damp Proof Course (DPC) 4.3   calculate the area of a gable 4.4   identify **additives** used in mortar 4.5   identify different types of **bonding** 4.6   describe the differences between load-bearing and non-load-bearing internal walls 4.7   calculate the volume of paint required to cover a wall area.

Range
Wall components Brick, block, insulation, Damp Proof Course (DPC), lintels, wall ties, airbrick and liner, cavity closures, stud partition, light density blocks, plasterboard, plaster.
Additives: Retardant, accelerant, frost inhibitor, cement dyes, plasticiser.
Bonding: Stretcher, English, Flemish.

Learning outcome
The learner will:
5. know about construction of floors.
Assessment criteria
The learner can:
5.1 describe **floor components**
5.2 calculate the linear quantity of floor boarding to cover an irregular shaped area
5.3 calculate additional quantities of wastage using percentage.

Range
Floor components:
Hard core, blinding sand, Damp Proof Membrane (DPM), insulation, oversite concrete, block and beam, pre-cast floor panels, screed (dry, self-levelling) sleeper walls, wall plates, DPC, joists, joist hangers, floor covering.

Learning outcome
The learner will:
6. know about construction of roofs.
Assessment criteria
The learner can:
6.1 describe **types** of roofs
6.2 describe **roof components**.

Range
Types
Gable-ended, flat, hipped, lean-to.
Roof components:
Purlins, rafters, truss rafters, ridge, batten/lathe, fascia, soffit, barges, valleys, wall plate, flashings, felt, slate/tile, insulation, joists, wall plate straps.

Learning outcome
The learner will:
7. understand how to communicate in the workplace.

Assessment criteria
The learner can:
7.1 describe **job roles** within building teams
7.2 explain **key personnel** involved in day to day communication
7.3 state **information** needed when requesting materials
7.4 identify methods of communication used to relay information to colleagues and others
7.5 describe advantages and disadvantages of **methods of communication**
7.6 state **occasions** when clear communication is vital in the workplace
7.7 explain **benefits** of positive communication with colleagues and others.

Range
Job roles
Professional, technician, trade, general operative.
Key personnel
Site manager, supervisors, fellow operatives.
Information
Dimensions, quantities, type, when and where required, contact name and details.
Methods of communication (7.4)
Letters, emails, telephone, memos, verbal, posters, signs, meetings, radio, text messages
Methods of communication (7.5)
Written, verbal
Occasions
Changes to risk assessments, work restrictions, changes to method statement, permits to work, changes to legislation.
Benefits
Improved motivation, avoid conflict, complying with equality and diversity, meeting deadlines.

Unit 215 Preparing surfaces for decoration

Level:	5
Credit value:	7
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).

Applying paint systems by brush and roller to complex areas

Level:	5
Credit value:	6
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).

Unit 217 Applying standard papers to walls and ceilings

Level:	5
Credit value:	11
Aim:	To provide the learner with the skills and knowledge required to apply standard papers to walls and ceilings.

Learning outcome
The learner will:
1. understand methods used in wallpaper production.
Assessment criteria
The learner can:
1.1 describe **methods** of wallpaper production
1.2 describe **printing methods**
1.3 describe **patterns** and **paper types**
1.4 state the suitability of different **paper types** for different locations
1.5 explain the meaning of **international performance symbols**.

Range
Methods
Wet embossing, dry embossing, heat expansion.
Printing methods
Block, screen, machine, wet, dry, embossing.
Patterns
Set/straight match, drop/offset match, random/free match.
Paper types
Pulps, embossed, washable, vinyl, duplex, simplex, ready-pasted, blown vinyl, wood ingrain
International performance symbols
Spongeable, washable, super washable, scrubbable, moderatelight fastness, good light fastness, strippable, peelable, ready-pasted, paste-the-wall, free match, straight match, design/distance repeat, offset match, direction of hanging, co-ordinated fabric available, reverse alternate lengths.

Learning outcome
The learner will:
2.   know how to select and prepare adhesives.

Assessment criteria
The learner can:
2.1   describe different **adhesives** when applying papers to walls and ceilings
2.2   describe **advantages and disadvantages of adhesives**
2.3   state how **factors** may affect the consistency of adhesives
2.4   describe how **defects** can occur owing to incorrect consistency of **adhesives**.

Range
Adhesives
Cellulose paste, starch/starch ether, overlap, ready-mixed (medium weight), PVA.
Advantages and disadvantages of adhesives
Ease of application, adhesive properties, marking quality, mould inhibitor.
Factors
Incorrect preparation, paper type, paper weight, room/air temperature, porosity of surface.
Defects
Blisters, delamination, stretching.

Learning outcome
The learner will:
3.   be able to select and prepare adhesives.

Assessment criteria
The learner can:
3.1   select correct type of **adhesive** to suit **paper type**
3.2   prepare **adhesives** in accordance with manufacturers' instructions
3.3   adjust consistency of **adhesives** to suit **paper type**
3.4   follow current **environmental and relevant health and safety regulations**.

Range
Adhesive
Starch /starch ether overlap, ready-mixed (medium weight), PVA.
Paper types
Pulps, embossed, washable, vinyl, duplex, simplex, ready-pasted, blown vinyl, wood ingrain
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:
4. understand how to apply papers to ceilings and walls.
Assessment criteria
The learner can:
4.1 explain **factors** to be considered when planning to apply papers
4.2 specify the use of different **papers**
4.3 explain why lining is advisable in certain **circumstances**
4.4 explain the use of girthing and area methods of calculating quantity of paper for different **pattern types**
4.5 explain **factors** to consider when **cutting papers**
4.6 explain the reason for **'marking lines'**
4.7 state the correct sequence for pasting paper
4.8 describe **faults** caused by careless pasting
4.9 explain reasons for selecting concertina and end-to-end/lap folds, for horizontal and vertical lengths
4.10 explain different **pasting methods**
4.11 identify different cutting equipment used when paper hanging
4.12 state appropriate cutting equipment for various **paper types**
4.13 explain types of **cutting equipment** which should be used for different types of papers
4.14 explain processes used for **hanging papers**
4.15 explain the causes of hanging **defects** and how they can be prevented.

Range
Factors
Ceilings, walls, starting point, finishing point, centring, doors, features/obstacles internal and external angles, sockets/switches/ceiling rose, borders, window reveals.
Papers
Standard lining, linen backed lining, embossed, blown vinyl, standard (washable, vinyl), ready-pasted, borders, non woven lining, wood ingrain
Circumstances
Solvent-painted wall, excessive making good, type of finishing paper, movement, absorbency
Pattern types
Set/straight match, drop/offset match, random/free match.
Cutting papers
Pattern type (bold with prominent repeat, small or indefinite pattern), pattern match (set/straight, offset/drop), batches, wastage, shading.
Marking lines
Occasions: first drop on wall, after internal/external angle, over and around reveals position (horizontal, vertical) method: (sprit level, plumb bob).

Faults
Dry edges, blistering, staining, tearing.

Pasting methods
Pasting machine, brush, roller, ready-pasted.

Paper types
Pulps, embossed, washable, vinyl, duplex, simplex, ready-pasted, blown vinyl, wood ingrain.

Cutting equipment:
Shears, knife and straight edge and casing wheel.

Hanging papers
Areas: Ceilings
Cross lining
Complexities: internal and external angles, sockets/switches, ceiling rose
pattern types: set/straight match, drop/offset match and random/free match
Cutting methods: star and half star cuts, borders to walls with mitre cuts.

Areas: Walls
Horizontal/cross lining and vertical application
complexities: internal and external angles, sockets/switches, window reveals
pattern types: set/straight match, drop/offset match and random/free match
cutting methods: star and half star cuts, borders to walls with mitre cuts

Defects
Creasing, inaccurate angle cutting, loss of emboss, overlapping, mis-match, , tearing, dry edges
springing joints, polished joints, blistering, shrinking and stretching
contamination, flattened edges, paste staining

Learning outcome
The learner will:
5.   be able to apply papers to ceilings and walls.

Assessment criteria
The learner can:
5.1   plan the position of paper hangings taking into account different **factors**
5.2   select, position and erect **access equipment**
5.3   select **tools and equipment** to apply papers to ceilings and walls
5.4   **calculate** quantities of wall papers
5.5   measure and cut paper lengths with the minimum of waste
5.6   plan, measure and mark starting lines, taking into account
a. **occasions**
b. **position**
c. **methods**
d. **considerations**
5.7   **paste paper** in accordance with manufacturer's instructions
5.8   apply set and drop pattern **papers** with minimum **defects**
5.9   cut **papers** to top, bottom and around obstacles, maintaining cleanliness
5.10 follow current **environmental and relevant health and safety regulations**.

Range
Factors
Ceilings, walls, starting point, finishing point, centring, doors, features/obstacles internal and external angles, sockets/switches/ceiling rose, borders, window reveals.
Access equipment
select from the following: steps, podiums, hop-up's, staging, trestle, spilt head.
Tools and equipment
Tape measure, folding rule, plumb bob, spirit level, paperhanging shears, sponges, paperhanging brush, trimming knives, caulker, pencil, spatulas, access equipment, paste brush, buckets, rubbish containers/bags, metal straight edge, trimming knife, chalk and line, troughs, paste table.
Calculate
Girthing and area methods.
Occasions
First drop on wall, after internal/external angle, over and around reveals, fittings
Position
Horizontal, vertical.
Methods
(select appropriate method) sprit level, plumb bob, laser level, chalk line
Considerations
access required, light source, room dimensions, economy.

Paste
Without misses, fold lengths using appropriate fold and soak, surface paste, excess paste

Papers
Lining, embossed, blown vinyl, standard (washable, vinyl) ready-pasted and borders, wood ingrain

Defects
Creasing overlaps, blisters, tears, delamination, polished edges, open joints, loose edges, irregular cutting, inaccurate matching, flattening of emboss, staining and surface marking, corners incorrectly negotiated, inaccurate plumbing.

Environmental and relevant health and safety regulations
Electrical safety, sharp blades, COSHH, the work at height regulations, disposal of waste.

Learning outcome
The learner will:
6. understand how to store materials.
Assessment criteria
The learner can:
6.1 explain the effects of **physical** and **atmospheric considerations**, relating to storage of **papers** and **adhesives**.

Range
Physical considerations Racks, wrapping, dust. **Atmospheric considerations** Temperature, dampness and direct sunlight. **Papers** Lining, embossed, blown vinyl, standard (washable, vinyl) ready-pasted and borders, wood ingrain **Adhesive** Cellulose paste, starch/starch ether , overlap, ready-mixed (medium weight), PVA.

Learning outcome
The learner will:
7. be able to store materials.
Assessment criteria
The learner can:
7.1 reclaim unused standard **papers** and **adhesives**
7.2 store standard **papers** and **adhesives**.

Range
Papers Lining, embossed, blown vinyl, standard (washable, vinyl) ready-pasted and borders, wood ingrain **Adhesive** Starch/starch ether, overlap, ready-mixed (medium weight), PVA.

Unit 218 Producing specialist finishes for decorative work

Level:	5
Credit value:	8
Aim:	To provide the learner with the skills and knowledge required to produce specialist finishes for decorative work.

Learning outcome
The learner will:
1. be able to produce quality finish ground coats for painted decorative work.
Assessment criteria
The learner can:
1.1 prepare **surfaces** to produce quality finish ground coats for painted decorative work using **abrasives** and **preparation processes**
1.2 select **tools and equipment** to produce quality ground coat finishes
1.3 prepare and apply **materials** to produce quality ground coat finishes correctly as per given specifications
1.4 follow current **environmental and relevant health and safety regulations**.

Range
Surfaces
Previously painted timber, previously painted plaster or plasterboard.
Preparation processes
Wet abrading, dry abrading, making good, spot priming.
Abrasives
Silicon carbide, glass paper, aluminium oxide.
Tools and equipment
stipple brush, rollers, rubbing blocks, buckets, sponges, dusting brush, paint brushes (natural bristle and synthetic filament), tack rags, stirrers, paint strainers, kettles, hanging brush, shears/knife, pasting table.
Materials
Water-borne eggshell, solvent-borne eggshell, fillers, paste, embossed 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, electrical safety, work at heights regulations, risk assessment, personal protective equipment (PPE).

Learning outcome
The learner will: 2. understand how to produce broken colour effect using water-borne and solvent-borne scumbles.
Assessment criteria
The learner can: 2.1 state **materials** used for producing **broken colour effects** 2.2 state the main ingredients of water-borne and solvent-borne scumbles 2.3 explain reasons for extending and reducing the drying time of water borne and solvent-borne scumbles 2.4 explain the **benefits** of preparing more than the calculated quantity of scumble for a piece of work 2.5 state methods of producing uniform **broken colour effects** when working on broad areas 2.6 describe how **application faults** may result in an uneven pattern effect 2.7 describe problems which may occur from careless **application and removal of masking material** 2.8 describe how to clean and store **tools and equipment**.

Range
Materials Acrylic glaze, solvent-borne glaze, oil colourant, acrylic colourant, white spirit, linseed oil, driers, scumble, chamois leather, lint-free cloth, barrier cream. **Broken colour effects** Rag rolling (additive and subtractive) sponge stippling, dragging, glaze and wipe. **Benefits** Matching, defects, maintenance. Repairs, re-doing. **Application faults** Loss of wet edge, banding/tracking, slip/skid marks, damage to decorative effect, removal of ground coat, paint brushes, hair stipplers, mohair roller, lint- free rag, chamois leather, dragging brushes, palettes, kettles. **Application and removal of masking material** **Application** Selection of appropriate tape, duration, positioning, crisp edges, prevention of creepage, protection of surrounding area. **Removal** Timing of removal, damage/lifting of surface coatings, disposal of waste tape. **Tools and equipment** Paint brushes, stippling brush, mohair roller, lint-free rag, chamois

leather, dragging brushes, natural sponges, palettes, kettles, plastic pots.

Learning outcome
The learner will: 3. be able to produce broken colour effects using water-borne scumbles.
Assessment criteria
The learner can: 3.1 check the **suitability** of ground coat and rectify if required 3.2 set out areas for application of **broken colour** and previous effects using **protection** and allowing for drying times 3.3 prepare **materials** to produce broken colour effects 3.4 select a colourant for **broken colour effect** using water-borne scumbles 3.5 select **tools and equipment** to produce **broken colour effects** 3.6 produce uniform **broken colour effects** to given specifications 3.7 remove types of **protection** correctly and dispose of waste products in accordance with legislation and official guidance 3.8 clean, maintain and store **tools and equipment** 3.9 follow current **environmental and relevant health and safety regulations**.

Range
Suitability Colour, finish, no visible coating defects (misses, ropiness, bits and nibs, brush marks, excessive orange peel, obliteration. **Broken colour effects** Rag rolling (additive and subtractive) sponge stippling, dragging, glaze and wipe. **Protection** Masking tape, low-tack tape, masking papers, films. **Materials** Glaze, colourant, scumble. **Tools and equipment** Paint brushes, stippling brush, mohair roller, lint-free rag, chamois leather, dragging brushes, natural sponges, palettes, kettles, plastic pots. **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, electrical safety, work at heights regulations, risk assessment, personal protective equipment (PPE).

Learning outcome
The learner will:
4. understand how to prepare stencil plates from given design and apply stencils.

Assessment criteria
The learner can:
4.1 explain differences between positive and negative stencil types
4.2 describe **methods** of transferring a design onto stencil sheet materials
4.3 state **materials** used when manufacturing a stencil plate
4.4 explain why the whole plate should be treated
4.5 describe the suitability of **base materials** used for cutting stencil plates
4.6 describe enlarging and reducing **methods** for stencil designs.

Range
Methods Transferring: trace, pounce, photocopy. Enlarging/reducing: accurate measurement, illuminated projection, photocopy, print. **Materials** Linseed oil, shellac knotting, paper and proprietary stencil materials (acetates, frisk film). **Base materials** Glass plate, proprietary cutting mat.

Learning outcome
The learner will:
5. be able to prepare stencil plates from given design and apply stencils.

Assessment criteria
The learner can:
5.1 select appropriate **tools and equipment and materials** to manufacture a stencil
5.2 prepare **stencil plate materials**
5.3 transfer designs using **methods** given to stencil plate materials
5.4 cut out positive and negative stencils demonstrating **cutting considerations**
5.5 set and mark out stencil locations for linear runs and borders, demonstrating the relevant **planning considerations**
5.6 apply pre-cut positive and negative stencil types with sharp outlines
5.7 clean, maintain and store **tools and equipment**
5.8 follow current **environmental and relevant health and safety regulations**

Range
Tools and equipment and materials Ruler, tape measure, stencil knife, craft knife, glass plate, proprietary cutting mat, hot knife, Materials: drawing paper, linseed oil, shellac knotting, mineral oil. **Stencil plate materials** Select one of the following: • paper • card • acetate • frisk film. **Methods** Trace, photocopy. **Materials** Chalk, spare paper/card, tape, proprietary spray adhesive, water-borne paints. **Cutting considerations** Cleanliness, hand position, knife angle, direction of cutting, blade sharpness, repair of broken ties, size and sequence of pattern (small areas and vertical lines first), free movement of stencil plate, margin widths. **Planning considerations** Number of repeats/connections, location of doors, windows, corners, access requirements, room dimensions, stencil size, spacing. **Environmental and Health and Safety Regulations:** Volatile organic compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, inhalation, burns, electrical safety, risk assessment, personal protective equipment (PPE).

Learning outcome
The learner will: 6.   understand how to produce wood and marble effects using basic techniques.
Assessment criteria
The learner can: 6.1   state British Standard 4800 colours of ground coats for **wood effects** 6.2   outline the importance of using the appropriate colour when producing **marble effects** 6.3   state ingredients used in **oil-based and water-borne scumbles** for different **effects** 6.4   state **materials** which will prevent cissing when applying water colour 6.5   list the **tools** and their uses to produce **wood** and **marble effects** 6.6   explain processes for applying **wood** and **marble effect** to **structural components**

6.7	describe the cleaning, maintenance and storage requirements for **tools and equipment and brushes**.

Range
Wood effects
Straight grain only – oak, mahogany.
Marble effects
Fantasy marble, Carrera.
Oil-based scumbles
Solvent-borne glaze, oil colourant, oil graining colour/medium, solvent-borne proprietary scumble, binders (fullers earth /whiting, stale beer, vinegar), varnish, white spirit, linseed oil, driers.
Water-borne scumbles
Acrylic glaze, acrylic colourants, dry pigments, (water, fullers earth/whiting, stale beer, vinegar) varnish, glycerine, retarding agents.
Materials
Fullers earth, detergent, whiting.
Tools and equipment and brushes
Tools and equipment: Metal/rubber/card combs, check/tick roller, natural sponges, feathers eg goose-wing, lint-free rag, palette knives, palettes, kettles, plastic pots.
Brushes: Rubbing in' brushes, mixing brushes, fitches, floggers and dragging brushes, softeners (hog's hair, badger), sable pencils and writers, varnish brushes.
Structural components
Panelled doors, windows, dado rails, narrow linear runs (ie architraves and skirtings), small wall panels.

Learning outcome
The learner will:
7.   be able to produce wood and marble effects using basic techniques.
Assessment criteria
The learner can:
7.1   check **factors** relating to the suitability of the ground coat, and rectify if required
7.2   select **colourants and pigments** appropriate to the given wood or marble effect
7.3   prepare **graining and marbling materials**
7.4   select **tools, brushes and equipment**
7.5   produce **wood and marble effects** using **processes**
7.6   clean, maintain and store **tools and equipment and brushes**
7.7   follow current **environmental and relevant health and safety regulations**.

Range

Factors
No visible coating defects (misses, ropiness, bits and nibs, undue texture), colour.

Colourants and pigments
Artists oil, acrylics, gouache, powder pigment, universal stainers.

Graining and marbling materials
Solvent-borne glaze, acrylic glaze, oil colorant, acrylic colorant, dry pigments, glue size, white spirit, linseed oil, crayons, oil graining colour/medium, solvent-borne proprietary scumbles, water graining colour/medium, binders (fuller's earth/whiting, stale beer, vinegar), varnish (acrylic/solvent-borne).

Tools and equipment and brushes
Tools and equipment: Metal/rubber/card combs, check/tick roller, natural sponges, feathers eg goose-wing, lint-free rag, palette knives, palettes, kettles, plastic pots.

Brushes: 'Rubbing in' brushes, mixing brushes, fitches, floggers and dragging brushes, softeners (hog's hair, badger), sable pencils and writers, varnish brushes.

Wood effects
Straight grain only – oak, mahogany.

Marble effects
Fantasy marble and Carrera.

Processes
'Oil-in' or rubbing in, flogging, combing, veining, softening, glazing, cissing or opening out, stippling, wiping out.

Environmental and Health and Safety Regulations
Volatile organic compounds (VOCs), disposal of waste, cuts and abrasions, dermatitis, inhalation, electrical safety, risk assessment, personal protective equipment (PPE).

Unit 220   Erecting and dismantling access equipment and working platforms

Level:	5
Credit value:	3
Aim:	To provide the learner with the skills and knowledge required to erect and dismantle access equipment and working platforms.

Learning outcome
The learner will:
1. understand the preparation required for using access equipment and working platforms.
Assessment criteria
The learner can:
1.1   explain **factors** to be considered when selecting **access equipment and working platforms**
1.2   identify suitable **access equipment and working platforms** for types of internal and external work.
1.3   outline how **manufacturers' specifications and legislative requirements** relate to Work at Height regulations.

Range
Factors
Ground conditions, height, type and duration of work, weather conditions, internal/external locations, access and egress.
Access equipment and working platforms
Ladders, stepladders/platform steps, proprietary towers, trestle platforms, proprietary staging and podiums, scaffold board, Mobile Elevating Work Platforms (MEWP).
Manufacturers' specifications and legislative requirements
British/European Standards for classifications of ladders.

Learning outcome
The learner will:
2.   be able to prepare for using access equipment and working platforms.
Assessment criteria
The learner can:
2.1   select suitable **access equipment and working platforms** for types of internal and external work
2.2   produce risk assessments in line with manufacturer's instructions and legislative requirements for **access equipment and working platforms**.

Range
Access equipment and working platforms
Ladders, stepladders/platform steps, proprietary towers, trestle platforms, proprietary staging and podiums, scaffold board.

Learning outcome
The learner will:
3.   understand how to check access equipment and identify faults.
Assessment criteria
The learner can:
3.1   describe the function of **access equipment components**
3.2   identify **hazards** associated with the use of access equipment and working platforms
3.3   explain the reasons for **inspections** and **inspection time periods**
3.4   state the procedure for carrying out visual checks on **access equipment** prior to use.

Range
Access equipment components
Stiles, rungs, tie rods, ropes, treads, hinges, swingbacks, locking bars, non-slip inserts/rubber feet, scaffold boards, platform staging, tubes, boards, fittings, scaffold board.
Tubes: Standard, transoms and boarded transoms, ledgers, bracers, rails.
Fittings: Coupler, couplet, base plate.
Hazards
Falls from heights – operatives, materials and tools, slips and trips, cuts and abrasions, faulty equipment.
Inspections
Pre-erection, in-use.
Inspection time periods
Pre-erection, post erection, handing over, post accident and incident, inclement weather.

Learning outcome
The learner will:
4. be able to check access equipment.

Assessment criteria
The learner can:
4.1   select suitable **access equipment components**
4.2   check **access equipment components**
4.3   adjust defective **access equipment** components to ensure they are safe to use.

Range
Access equipment components
Scaffold tags, ladders (stiles, rungs, tie rods), treads, hinges, swingbacks, locking bars, non-slip inserts/rubber feet, clip-on platforms, access stairs, access hatches, braces, working platforms, stabilisers, outriggers, guide brackets, latching hooks.

Learning outcome
The learner will:
5. understand how to erect access equipment and working platforms.

Assessment criteria
The learner can:
5.1   explain the benefits of a risk assessment for **access equipment and working platforms**
5.2   identify suitable **personal protective equipment (PPE)** for erecting **access equipment and working platforms**
5.3   explain the reasons for correct manual handling of components when erecting **access equipment and working platforms**
5.4   state the main implications of the Work at Height Regulations in relation to use of **access equipment and working platforms**
5.5   explain the purpose of **regulation dimensions**.

Range
PPE
Hard hats, gloves, eye protection, steel toe capped boots, overalls, high visibility jacket/vest, fixed length and fall arrest.
Access equipment and working platforms
Ladders, proprietary towers, trestle platforms, stepladders and platform steps, proprietary staging and podiums, scaffold board.
Regulation dimensions
Hand rail location, guard rail location, toe boards, maximum working heights, platform widths, base to height ratios.

Learning outcome
The learner will:
6.   be able to erect access equipment and working platforms.
Assessment criteria
The learner can:
6.1   use personal protective equipment (PPE) when erecting **access equipment and working platforms**
6.2   erect **access equipment and working platforms** in the correct sequence to ensure it is safe for use
6.3   secure **access equipment and working platforms** where required
6.4   check **access equipment and working platforms** meet current **environmental and health and safety regulations**.

Range
Access equipment and working platforms
Ladders, proprietary towers, trestle platforms, stepladders and platform steps, proprietary staging and podiums, scaffold boards.
Environmental and health and safety regulations
Work at Height Regulations 2005.

Learning outcome
The learner will:
7.   understand how to dismantle and store components.
Assessment criteria
The learner can:
7.1   explain the correct sequence of dismantling **access equipment and working platforms**
7.2   explain storage requirements for **access equipment and working platforms**.

Range
Access equipment and working platforms
Ladders, proprietary towers, trestle platforms, stepladders and platform steps, proprietary staging and podiums, scaffold boards.

Learning outcome
The learner will:
8.   be able to dismantle and store components.
Assessment criteria
The learner can:
8.1   dismantle and store **access equipment and working platforms** in accordance with organisational requirements.

Range
Access equipment and working platforms
Ladders, proprietary towers, trestle platforms, stepladders and platform steps, proprietary staging and podiums.

Unit 230   Creating and applying colour

Level:	5
Credit value:	4
Aim:	To provide the learner with the skills and knowledge required to create and apply colour

Learning outcome
The learner will:
1.   understand the colours required to create a colour wheel.
Assessment criteria
The learner can:
1.1   explain the **purpose** of a colour wheel
1.2   identify **primary, secondary** and **tertiary colours** in a colour wheel
1.3   explain what a **primary** colour is
1.4   explain what a **secondary** colour is and how it is created
1.5   explain what a **tertiary** colour is and how it is created
1.6   describe **analogous colours** and what position they are on the colour wheel
1.7   describe **complementary colours** and what position they are on the colour wheel
1.8   describe **monochromatic colours** and what position they are on the colour wheel.

Range
Purpose Tool for understanding how colours relate to each other. **Primary colours** Red, yellow, blue. **Secondary colours** Green, orange, purple (violet). **Tertiary colours** Yellow-green, blue-green, blue-purple (violet), red-purple (violet), red-orange, yellow-orange. **Primary** Pure colours. **Secondary** Mixing two primary colours.

Tertiary
Mixing primary colour with a secondary colour (ratio 2:1).

Analogous colours
Colours occupying any three consecutive colour segments on the wheel; they share strong undertones, creating a pleasing harmony.

Complementary colours
Colours directly opposite each other on the wheel, these are contrasting and give off energy, vigour and excitement.

Monochromatic colours
All the colours (tints, tones, and shades) of a single hue. Monochromatic colour schemes are derived from a single base hue, and extended using its shades, tones and tints. The energy is more subtle due to a lack of contrast of hue.

Learning outcome
The learner will: 2. be able to create a colour wheel on a broad surface.
Assessment criteria
The learner can: 2.1 select **equipment** required to draw a colour wheel   2.2 plan, measure and draw a colour wheel to incorporate **primary and secondary colours**   2.3 apply **primary colours** in the correct position on the wheel using straight and curved lines   2.4 mix the correct **primary colours** to create the **secondary colours** and apply in the correct position.

Range
Equipment   Pencils, compass, trammel, ruler, chalk line, spirit level, masking tape.   **Primary colours**   Red, yellow, blue.   **Secondary colours**:   Green, orange, purple (violet).

Learning outcome
The learner will:
3. understand colour organisational systems and terminology used in industry.

Assessment criteria
The learner can:
3.1 state **colour organisational systems** used in industry
3.2 explain **reasons** why the BS 4800 series was developed
3.3 explain the terms **hue, value and chroma** and how to identify them within the **Munsell system**
3.4 explain the **natural order** of colour
3.5 explain **saturation** in relation to hues on a colour wheel
3.6 explain the term **achromatic**
3.7 explain the term **neutrals**
3.8 explain the **terms** warm and cool colours and their **uses**
3.9 explain the terms **shade** and **tint** in relation to mixing colours.

Range
Colour organisational systems
Munsell Colour System.
BS 4800: Paint Colours for Building Purposes.
RAL System.
NCS System.
Reasons
To ensure the standardisation of colour and to provide consistency in a specification, used for identification purposes.
Munsell System
International system that gives a definite description of a colour using the properties of Hue, Value and Chroma, this system helped prepare the BS 4800 system.
Hue
Uses ten principle Hues and describes the colour with a letter and so 5Y represents pure yellow etc.
Value
Represents the lightness (whites) or darkness (blacks) of a colour and is identified by a number between 0-10.
Chroma
Represents the greyness of a colour and is identified by a number between 0-14.
Natural order
Helps us make sense of colour ie spectrum, reversal of the natural order.
Saturation
Brightness/intensity of colour.

Achromatic
Not technically classed as colours as they are without a hue. These range from black through to white and are sometimes known as sensations.

Neutrals
Black, grey, white (and sometimes brown and beige).

Terms
Warm colours: from red to yellow on the colour wheel.
Cool colours: from green to blue on the colour wheel.

Uses
Warm colours: advancing; giving the appearance of being closer to the eye.
Cool colours: receding, creating the appearance of space.

Shade
A hue with black added.

Tint
A hue with white added.

Learning outcome
The learner will:
4.   understand the effects that artificial light has on colour.

Assessment criteria
The learner can:
4.1   state the difference between artificial and natural **light** sources and its effect on colour
4.2   describe the term **metameric effect**
4.3   state what will happen to colours if the light source is changed
4.4   state the changes artificial **light** has on colour.

Range
Light
Tungsten May cast a yellowing warm light which will dull down cool colours, but enhance warmer colours. Main form of light in domestic properties
Fluorescent Gives off a green tinge which can dull warm colours, some give off a pink tinge which are more colour friendly and can enhance warm colours.
Sodium LPS (low pressure sodium) used for street lamps and security lights and give off a soft luminous glow, resulting in less glare. Also used in cafes and restaurants as it creates a good atmosphere due to the light giving off a pinkish orange light HPS (High Pressure Sodium).
LED Stands for 'Light-Emitting Diode'. An LED is an electronic device that emits light when an electrical current is passed through it. Directional beam of light, used for task lighting. Fittings often use multiple LEDs for larger spread of light. Typically white light enhancing all colours.

Halogen
Produces a very attractive bright light that closely resembles sunlight. Halogen bulbs have a tungsten filament and are filled with a mixture of argon and halogen gas. As well as energy saving, halogen can be used in spotlights and other directional light fittings. Typically white light therefore enhancing all colours although various soft glow colours can be obtained to enhance either warm or cool colours.

ECO
ECO efficient, energy saving, long lasting, replacement for standard tungsten bulbs and fluorescent tubes.
Range:
CFC: compact fluorescent, range of colours, often warm glow from fluorescent type.
LED and Halogen, generally white light.

Metameric effect
If you try to match a colour under a particular lighting condition and then change the light source, the colour will generally no longer match.

Learning outcome

The learner will:

5.   be able to produce colour schemes for internal and external areas.

Assessment criteria

The learner can:

5.1   produce specifications for **monochromatic colour schemes**

5.2   produce specifications for **analogous colour schemes**

5.3   produce specifications for **complementary colour schemes**.

Range

Monochromatic colours
All the colours (tints, tones, and shades) of a single hue. Monochromatic colour schemes are derived from a single base hue, and extended using its shades, tones and tints. The energy is more subtle due to a lack of contrast of hue.

Analogous colours
Colours occupying any three consecutive colour segments on the colour wheel.

Complementary colours
Colours directly opposite each other on the wheel, these are contrasting and give off energy, vigour and excitement.

Appendix 1   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	E: **intcg@cityandguilds.com**
Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	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	E: **singlesubjects@cityandguilds.com**
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