



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **CUVVSP22B Research and experiment with techniques to produce glass work**

**Release: 1**

## **CUVVSP22B Research and experiment with techniques to produce glass work**

### **Modification History**

Not Applicable

### **Unit Descriptor**

#### **Unit descriptor**

This unit describes the skills and knowledge required to research and experiment with various techniques and media for the realisation of glass work. It outlines the way glass work is produced through the use of experimentation and ongoing refinement. It is a specialisation unit and refers to a specific art form. This work would usually be carried out independently, although guidance would be available if required.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

### **Application of the Unit**

Not Applicable

### **Licensing/Regulatory Information**

Refer to Unit Descriptor

## Pre-Requisites

### Prerequisite units

It is highly recommended that this unit be assessed in conjunction with:

- CUVCOR04B Originate concept for own work and conduct critical discourse
- CUVCOR09B Select and apply drawing techniques and media to represent and communicate the concept
- CUVCOR13B Research and critically analyse history and theory to inform artistic practice.

Depending on the context, combined assessment and/or training with a range of other units would also be appropriate, e.g.:

- CUVCRS14B Prepare, store and maintain finished work
- CUVCRS08B Document the work progress.

## Employability Skills Information

### Employability skills

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

### ELEMENT

### PERFORMANCE CRITERIA

- |   |   |
|---|---|
| <b>1 Inform work through experimentation with glass working techniques and media.</b> | <ul style="list-style-type: none"><li>1.1 Evaluate the potential for new approaches to <i>glass work</i> based on capabilities of <i>techniques</i> already used.</li><li>1.2 Select, adapt or introduce new <i>materials, tools, equipment</i> or technology for the achievement of different effects.</li><li>1.3 <i>Extend the capabilities</i> of glass working techniques through experimentation to inform practice.</li><li>1.4 Take account of <i>particular safety or environmental issues</i> associated with the use of different techniques and media.</li><li>1.5 <i>Research</i>, adapt and use relevant ideas and approaches from other practitioners with consideration of <i>intellectual property, moral rights and copyright requirements</i>.</li></ul> |
| <b>2 Develop and refine a conceptual vision for glass work.</b>                       | <ul style="list-style-type: none"><li>2.1 Develop a <i>conceptual vision</i> for glass work based on a knowledge and understanding of different glass working techniques.</li><li>2.2 Consider the criteria for selecting techniques, material, tools and equipment based on results of experimentation.</li><li>2.3 Establish criteria which are most likely to facilitate the achievement of the conceptual vision.</li><li>2.4 Select approach to work which meets established criteria.</li><li>2.5 <i>Refine the conceptual vision</i> based on ongoing experimentation and analysis of glass working techniques.</li></ul>  |
| <b>3 Determine and organise resource requirements for new work.</b>                   | <ul style="list-style-type: none"><li>3.1 Assess specific resource requirements which arise from the use of techniques and experimental approaches.</li><li>3.2 Research and access potential <i>sources of supply</i> for glass work resources.</li><li>3.3 Evaluate <i>cost or other constraints</i> which may impact on the development of work.</li><li>3.4 Set up or co-ordinate resource requirements in accordance with safety or other <i>workplace</i></li></ul>   |

**ELEMENT**

**PERFORMANCE CRITERIA**

*requirements.*

**ELEMENT****PERFORMANCE CRITERIA****4 Realise glass work.**

- 4.1 Realise the glass work using techniques and media selected from research and experimentation to meet the conceptual vision.
- 4.2 Evaluate and respond to the potential for changes in the use of techniques, materials, tools or equipment.
- 4.3 Refine the conceptual vision based on ongoing experiences with the production of work.
- 4.4 Use safe working practices throughout the production of glass work.
- 4.5 Consider *issues of presentation* and *take action* accordingly.

**Required Skills and Knowledge****REQUIRED SKILLS AND KNOWLEDGE**

This section describes the skills and knowledge required for this unit.

**Required skills:**

- research skills and sources of information to inform experimentation in glass work
- literacy skills sufficient to interpret information and material about the work of other glass artists
- numeracy skills sufficient to evaluate resource costs and to calculate firing times.

**Required knowledge:**

- the role of experimentation in the developing and refining of concepts for glass work
- detailed knowledge of physical properties and capabilities of the range of materials and tools used in glass work
- the characteristics of different materials under different treatments and the potential of these characteristics to achieve different effects
- formal elements and principles of design and how these may be used, adapted and challenged in the development of concepts for glass work
- the historical and theoretical contexts for glass work and how this may be used to inform own artistic practice
- copyright, moral rights and intellectual property issues and legislation associated

## **REQUIRED SKILLS AND KNOWLEDGE**

with glass work

- sources of raw, part-processed and processed materials and other resources for glass work
- work space requirements for glass work, including selection and set up of work space for particular types of work
- environmental issues associated with the tools and materials used in glass work, including the potential issues associated with new approaches
- organisational and legislative occupational health and safety procedures in relation to glass work.

## REQUIRED SKILLS AND KNOWLEDGE

### Evidence Guide

#### EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### **Critical aspects for assessment and evidence required to demonstrate competency in this unit**

The following evidence is critical to the judgement of competence in this unit:

- production of glass work which demonstrates a highly developed command of the selected techniques and which is consistent with the conceptual vision
- in depth knowledge of techniques, materials and tools and the ways they may be adapted and extended.

#### **Context of and specific resources for assessment**

The assessment context must provide for:

- evaluation of visual language and technical execution of work pieces produced by the candidate
- practical demonstration of skills using required tools, equipment and materials to produce multiple pieces of glass work or a single major work.

#### **Method of assessment**

Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:

- direct observation of glass work in progress, including exploration of and experimentation with techniques
- questioning and discussion about candidates intentions and the work outcomes
- verbal and written reports
- review of portfolios of evidence



## EVIDENCE GUIDE

- third party workplace reports of performance by the candidate.

Assessment methods should closely reflect workplace demands (e.g. literacy) and the needs of particular groups (e.g. people with disabilities, and people who may have literacy or numeracy difficulties such as speakers of languages other than English, remote communities and those with interrupted schooling).

Assessment of this unit requires access to the materials and resources needed to produce glasswork.

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

***Glass work*** may include:

- architectural glass work
- functional items (bowls, platters, vases)
- installation work
- sculptural forms
- vessels
- wearable pieces (head and neck pieces, brooches).

Within this unit the candidate would generally demonstrate a command of a broad range of ***techniques*** as the basis for experimentation and innovation. Techniques may include:

- assemblage
- blowing
- casting
- colouring
- engraving
- etching
- fusing
- hot forming
- lampworking
- leadlight/copperfoil
- pâte de verre
- sand blasting
- slumping.

***Materials*** may include:

- clay
- clear furnace glass for hotworking as well as compatible coloured glass for hotworked overlays and inclusions
- materials suitable for inclusions (selected metals and minerals, plant materials)
- other colouring agents such as lustres, metallic salts

## **RANGE STATEMENT**

- plaster
- polishing powders (pumice, cerium oxide)
- range of colours suitable for both low and high temperatures as well as for layered glass, cast glass and stained, painted and printed surfaces
- refractory board suitable for making moulds
- refractory fillers (sand, silica)
- refractory release agents (graphite, kaolin, alumina, bead release)
- sculpture wax
- selection of clear and coloured compatible casting glass
- selection of clear and coloured compatible glass for lampworking
- selection of clear and coloured compatible sheet glass for kiln formed work
- selection of clear and coloured sheet glass for leadlighting/copperfoil work
- variety of texturing materials.

## RANGE STATEMENT

***Tools*** may include:

- brushes
- cutting aids and guides (templates, braced squares, grids)
- hand glass cutters (regular glass cutter, circle cutter)
- hand polishing pads
- modelling and carving tools for clay and/or plaster
- moulds for hotglass work
- piping tools (slip trailer, icing bag, syringe)
- pliers (running, grozing, plate)
- rulers
- slumping moulds.

***Equipment*** may include:

- compressor
- drill
- electric kilns, kiln furniture
- engravers
- glass cutting machinery (cut-off saw, band saw)
- glass cutting table
- grinding and polishing equipment (linisher, flatbed grinder, bevel grinder)
- light table
- PPE, including safety glasses, gloves and wrist gauntlets, dust masks, respirator
- programmable kiln controllers
- sandblaster
- slumping moulds.

***Extending capabilities***  
through:

- experimentation encourages the exploration of the full potential of the art form and involves innovation.

***Particular safety or environmental issues*** may include:

- Federal, State and Territory legislation, regulations and standards
- personal protection
- recycling
- safe disposal of waste.

## RANGE STATEMENT

- Research** may involve:
- approaching individuals with relevant expertise
  - attending lectures and talks
  - conducting material and technical experiments and tests
  - seeking out information in books, journals, newspapers
  - visiting exhibitions, museums.
- Intellectual property and copyright requirements** may relate to:
- extent to which the work may be used
  - procedures for seeking permission to use the work of others, including systems for the administration of copyright
  - protocols for the adaptation of work by others.
- The **conceptual vision** may be determined by:
- elements and principles of design
  - the relationship of the work to a theoretical and historical context
  - the subject matter or theme for the glass work, e.g. the body; identity; land and place; political, cultural, social issues; spiritual concerns.
- Refining the conceptual vision** may include:
- adjustment to consideration of elements and principles of design
  - adjustment to subject matter or theme
  - adjustment to utilise the extended capabilities of the technique
  - no change.
- Sources of supply** may include:
- commercial outlets
  - found objects or materials
  - manufacturing or factory waste
  - nature.
- Cost and other constraints** may relate to:
- availability of materials and tools
  - budgeting
  - sponsorship

**RANGE STATEMENT**

- timeframe.

*Workplace requirements* may include:

- dust extraction
- lighting
- process specific requirements
- ventilation
- wet and dry areas.

*Issues of presentation* may include:

- availability of space
- client preference
- cost
- practical considerations
- presentation context
- timeframe.

*Taking action* may involve:

- deciding on presentation method
- seeking external assistance (for example with plinth construction)
- selecting and preparing work for presentation.

**Unit Sector(s)**

Not Applicable