

<b>Title</b>	<b>Design and produce vehicle seats</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	People credited with this unit standard are able to: demonstrate knowledge of designing vehicle seats; prepare to design vehicle seats; produce the seat frame; select, mark out, and cut the padding to size; produce the covering; and assemble and fit the seat.
----------------	---

<b>Classification</b>	Industrial Textile Fabrication > Vehicle Trimming and Upholstery
-----------------------	--

<b>Available grade</b>	Achieved
------------------------	----------

---

### Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturer's information, company requirements, industry guidelines and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 2 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the Health and Safety at Work Act 2015; Land Transport Rule - Seats and Anchorages 2002, Rule 32004; and any subsequent amendments and replacements.
- 3 Definitions
 

*Company requirements* refers to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions, product quality specifications and legislative requirements.

*Industry guidelines* refers to those practices and procedures commonly used as standard procedures to produce items of acceptable merchantable quality in the industrial textile fabrication industry such as related textbook descriptors.

*Manufacturer's information* refers to technical information for a machine or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.

*Suitable tools and equipment* refer to industry approved tools and equipment that are recognised within the industry as being the most suited to complete the task in a professional and competent manner with due regard to safe working practices.

---

## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of designing vehicle seats.

#### Performance criteria

- 1.1 Types of seats are identified.  
Range bench, bucket, folding.
- 1.2 Components that make up a seat are identified.  
Range frame, recliner mechanism, adjustment mechanisms, arm rest, paddings, webbings, rubber platforms, lumbar support, springs, cover.
- 1.3 Frame, padding, and spring designs are identified.  
Range car, light and heavy commercial vehicles.
- 1.4 The purpose of legislative requirements that apply to designing and producing vehicle seats is described.

### Outcome 2

Prepare to design vehicle seats.

#### Performance criteria

- 2.1 Customer requirements are identified and verified.  
Range frame, springs, supports.
- 2.2 Job specifications are drawn up.
- 2.3 Materials required to make the seat are identified.  
Range may include – metal, springs, padding, fasteners, coverings, webbings, paint, ply, wood, bolts, screws, adhesives, fibreglass.

### Outcome 3

Produce the seat frame.

#### Performance criteria

- 3.1 Metal for the frame is identified and cut to size.

3.2 Frame is welded and shaped.

Range no defective welds, no sharp corners, even curves.

3.3 Seat frame is fabricated and painted.

3.4 Springing systems are identified and are fitted to the frame.

#### **Outcome 4**

Select, mark out, and cut the padding to size.

##### **Performance criteria**

4.1 Materials to be used for padding are identified.

Range foam rubber, foam plastic.

4.2 Foam is measured, marked out, and cut to shape and size.

Range adhesives, tape.

4.3 Padding is checked for fit to the frame.

#### **Outcome 5**

Produce the covering.

##### **Performance criteria**

5.1 Fabric to be used for the cover is identified.

Range cloth, vinyl, leather.

5.2 Defects in fabric are identified and omitted.

5.3 A template is made for the fabric.

5.4 Material is measured, marked out, and cut to shape and size.

Range matching pattern, pile consistency; allowance of  $\pm 2$ mm.

5.5 Fabric is stitched together and the cover is completed.

Range no missed stitching, matching pattern, even seams, buttons pulled down evenly and evenly tensioned, pleating evenly spaced and laying in the right direction; allowance of  $\pm 2$ mm.

#### **Outcome 6**

Assemble and fit the seat.

**Performance criteria**

- 6.1 Seat is assembled and checked for operation.  
Range adhesives, fasteners, cover, padding, frame.
- 6.2 Seat is fitted in the vehicle and is secured.

<b>Planned review date</b>	31 December 2026
----------------------------	------------------

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	21 August 1996	31 December 2023
Revision	2	14 November 2000	31 December 2023
Revision	3	16 October 2003	31 December 2023
Review	4	26 March 2007	31 December 2023
Rollover and Revision	5	27 January 2015	31 December 2023
Review	6	25 November 2021	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0014
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact Hanga-Aro-Rau – Manufacturing, Engineering, and Logistics Workforce Development Council [qualifications@hangaarorau.nz](mailto:qualifications@hangaarorau.nz) if you wish to suggest changes to the content of this unit standard.