

40848 Produce a 3D digital model from a reference image

Kaupae Level	2
Whiwhinga Credit	3
Whāinga Purpose	<p>This skill standard introduces learners to 3D digital modelling practices.</p> <p>Learners who have completed the standard will be able to combine forms in 3D software and export outcomes. The skills covered by this standard may be applied in a range of creative or other contexts including making a 3D digital asset for a game or animation, or a simple model for 3D printing.</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Produce a 3D digital model from a reference image.	a. Analyse the qualities of the reference image to identify basic forms and proportions.
	b. Use 3D modelling tools and processes to create the basic forms from the reference image.
	c. Apply appropriate 3D sculpting techniques to refine subject details.
	d. Apply relevant textures, and/or lighting to the model for its intended purpose.
	e. Export and/or render the model in the required file format for its intended purpose.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

To complete this standard, the learner must present a finished 3D model in a digital format appropriate for its intended use.

Definition

Reference image refers to a visual guide for learners that ideally shows at least two perspectives of the subject.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

- Analysis of reference images and basic forms (e.g. solid forms including spheres, cylinders, cones, cubes and prisms).
- Tool and techniques for 3D modelling and sculpting (e.g. transforming faces, edges, and vertices, extruding, combining, stitching, scaling, rotating, bevelling, adding, subtracting, smoothing).
- Rendering processes (e.g. lighting, material properties and textures, camera staging).
- Exporting formats including for 3D printing (e.g. .STL, .OBJ) and digital publication including video sequence (e.g. .MOV, .MP4).
- File management and documentation.

Rauemi | Resources

The following list includes suggested accessible web-based and other digital tools for 3D modelling:

- [Blender free 3D creation suite.](#)
- Zbrush (industry standard digital sculpting tool).
- Maya (industry standard digital sculpting tool).
- [TinkerCAD free web app for 3D design.](#)

Pārongo Whakaū Kouna | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Toi Mai Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Arts and Crafts > Electronic Media > Content Creation
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0099

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	24 July 2025	N/A
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	30 December 2030		

Please contact Toi Mai Workforce Development Council at qualifications@toimai.nz to suggest changes to the content of this skill standard.