**NZQA**

**Approved**

Achievement standard: 91341 Version 3

Standard title: Develop a spatial design through graphics practice

Level: 2

Credits: 6

Resource title: Modular kitchen design

Resource reference: Design and Visual Communication VP-2.34 v2

Vocational pathway: Construction and Infrastructure

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| Quality assurance status | These materials have been quality assured by NZQA.  NZQA Approved number A-A-02-2015-91341-02-8148 |
| Authenticity of evidence | Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material.  Using this assessment resource without modification may mean that learners’ work is not authentic. Assessors/ educators may need to change figures, measurements or data sources or set a different context or topic to be investigated or a different text to read or perform. |

Vocational Pathway Assessment Resource

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Learner instructions

# Introduction

This assessment activity requires you to develop a spatial design for a modular kitchen, using graphics practice.

You are going to be assessed on how effectively you develop a spatial design for a modular kitchen. You need to review and refine well-considered design ideas for the kitchen that show you have integrated spatial design knowledge throughout the development of the ideas.

The following instructions provide you with a way to structure your work so you can demonstrate what you have learnt and achieve success in this standard.

Assessor/educator note: It is expected that the assessor/educator will read the learner instructions and modify them if necessary to suit their learners.

# Task

The design brief is to produce a portfolio of design ideas for a modular kitchen design, to meet the following specifications:

* A modular kitchen design – i.e. it uses a combination of assembled kitchen units that can be ordered from a kitchen design studio or hardware store.
* The kitchen should be in an authentic context. This means it should be in a specific site/location. Use either a real kitchen (if you know someone that has one needing renovation) or a photograph of a kitchen needing renovation.
* You need to be able to produce specifications (i.e. measurements of length, width, height, etc.) for the kitchen.

Compiling your portfolio involves these three phases:

1. Initial research
2. Initial ideas
3. Ideas development

Throughout the process, you will evaluate the positive and/or negative aspects of both the functional and aesthetic features of your design ideas in relation to the brief.

To show the progression of your design ideas, you could include visual diaries, sketches, mock-ups, drawings, models, photographs, digital media, display boards or installations. You can support these with annotations (notes) as needed.

## Part 1: Initial research

Find a kitchen design studio or hardware shop that can provide a catalogue of kitchen units and cabinetry. You need a full range of available styles and dimensions of different units, bench tops, etc.

Collect images (photographs and drawings) of kitchen designs that may inspire or assist with design ideas for a new kitchen. You could source these from magazines, the internet, books or existing designs.

Consider and make design judgements on the positive and/or negative aspects of the functional and aesthetic design features of these existing designs.

## Part 2: Initial ideas

Develop some initial ideas for your modular kitchen, using sketches and/or mock-ups. The inspiration for these ideas can come from any source, e.g. initial research, designs you may have seen, the immediate context or your own creativity.

Treat your sketches or mock-ups as starting points for possible development. At this stage, all ideas are exploratory, but you need to consider ideas that fit within the intended location, i.e. the kitchen you have chosen.

## Part 3: Ideas development

Show progression in your thinking by refining and reviewing initial ideas, integrating spatial design knowledge and identifying which of these ideas you prefer. Your preference may be for a particular idea or parts or combinations of several ideas. Explain your choices.

Explore, refine and review your selected idea (or combination of ideas), using visual communication techniques and approaches that explain your design thinking.

Integrate spatial design knowledge into your design ideas throughout the development to produce well-considered design ideas. Spatial design knowledge includes (but is not limited to):

* design tools used for the development of spatial design ideas
* technical knowledge of materials, processes, sustainability and environmental considerations
* spatial visual communication techniques and approaches.

Explore alternative design ideas to introduce ingenuity and creative flair in response to the brief. You may have client specifications that will provide both opportunities and constraints. Your aim is to produce well-considered design ideas in response to the brief.

In developing, reviewing and refining your well-considered design ideas using graphics practice, you need to do the following:

* Provide design judgements on the relevant aesthetic and functional features of the design, in response to the brief that informs the progression of the design ideas.
* Integrate spatial design knowledge through the development of the design ideas. The development of the ideas should be logical, related to research and linked to the initial ideas.
* Support your judgements with qualitative and/or quantitative data gathered through continuing research, as needed. This may include:
  + gathering and analysing anthropometric data (measurement of the size, weight and proportions of the human body)
  + looking at how people need to move around a kitchen
  + ways to optimise workspaces, storage, etc.

Judgements may also reflect your own values, tastes, views, or perspective.

* Make notes explaining the basis for the design ideas and give reasons for the decisions you make.

Throughout the design development process make sure you:

* review and refine well-considered design ideas for the modular kitchen design
* show that you have integrated product design knowledge through the development of ideas for the modular kitchen design
* effectively develop design ideas through graphics practice
* show linkages and flow from the exploration through the refinement, i.e. the detailing of the ideas, and show how this solves any design problems encountered
* use product design knowledge such as design tools, technical knowledge of materials etc. and product visual communication techniques for example prototypes, animations etc.
* make design judgements that are based on relevant features of the design
* consider the aesthetics (the way it looks) and function (the way it works) of the design.

There could be evidence of computer modelling/mock-up etc. of the design to validate ergonomics and usability requirements.

Make sure the features of your final design outcome are clearly established and identified at the conclusion of your development work.

When you submit your completed portfolio for assessment, make sure it includes all the visual and written work required.

# Resources

These websites may have useful information about kitchen design:

<http://nz.lifestyle.yahoo.com/better-homes-gardens/renovation/articles/a/-/14192378/how-to-design-a-small-kitchen/>

<http://www.bunnings.co.nz/learn-how-to-DIY_diy-kitchen-planner1.aspx>

<http://www.nzs.com/new-zealand-articles/business/kitchen-designs.html>

<http://www.smythsliving.co.nz/downloads/nobilia-style.pdf>

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Assessor/Educator guidelines

# Introduction

The following guidelines are supplied to enable assessors/educators to carry out valid and consistent assessment using this internal assessment resource.

As with all assessment resources, education providers will need to follow their own quality control processes. Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material. Using this assessment resource without modification may mean that learners' work is not authentic. The assessor/educator may need to change figures, measurements or data sources or set a different context or topic. Assessors/educators need to consider the local context in which learning is taking place and its relevance for learners.

Assessors/educators need to be very familiar with the outcome being assessed by the achievement standard. The achievement criteria and the explanatory notes contain information, definitions, and requirements that are crucial when interpreting the standard and assessing learners against it.

# Context/setting

This activity requires learners to produce a portfolio of effective design work using graphics practice that shows the development of a spatial design idea for a new modular kitchen.

# Conditions

This is an individual activity.

# Resource requirements

Learners need access to specialist spatial knowledge, e.g. architectural design books and the internet.

# Additional information

Check learners’ work during the assessment task as they work towards an outcome. These checks could be at key stages of the process or other appropriate points.

Give learners feedback during their portfolio work.

## Other possible contexts for this vocational pathway

Develop design ideas for a workshop layout or a retail shop layout.

# Assessment schedule: Design and Visual Communication 91341 – Modular kitchen design

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| Evidence/Judgements for Achievement | Evidence/Judgements for Achievement with Merit | Evidence/Judgements for Achievement with Excellence |
| The learner develops a spatial design for a modular kitchen using graphics practice by:   * exploring and refining design ideas that draw on spatialdesign knowledge * making design judgements on the positive and/or negative aspects of aesthetic and functional features of the design, in response to the brief, and supporting design judgements with qualitative and/or quantitative data from research   For example:  The portfolio draws on spatial knowledge to develop ideas that explore and refine modular kitchen designs for a given location.  The learner has made design judgements about the positive and/or negative aspects of the style, form and appearance. (Aesthetics)  The learner has made design judgements about the positive and/or negative aspects of the layout, people flow, work optimisation, durability and safety. (Function)  The design judgements are supported with research on kitchen styles and appearance and/or heights, dimensions and functional layout of existing kitchens.  *The above expected learner responses are indicative only and relate to just part of what is required.* | The learner clearly develops a spatial design for a modular kitchen using graphics practice by:   * exploring, reviewing and refining design ideas that incorporate spatial design knowledge * making design judgements on relevant features of the design, in response to the brief, that inform the progression of design ideas and supporting design judgements with qualitative and/or quantitative data from research   For example:  The portfolio incorporates spatial design knowledge to develop ideas that have explored, refined and reviewed modular kitchen designs for a given location.  The learner has made design judgements on the relevant aesthetic features (such as style, form, appearance, harmony, rhythm, contrast) that inform the progression of the modular kitchen design.  The learner has made design judgements on the relevant functional feature (such as durability, layout, safety, ease of use, workspace optimisation, analysis of anthropometric and ergonomic data) that inform the progression of the modular kitchen design.  The design judgements are supported with research on styles and appearance of kitchens and/or heights, dimensions and functional layout of existing kitchens.  *The above expected learner responses are indicative only and relate to just part of what is required.* | The learner effectively develops a spatial design for a modular kitchen using graphics practice by:   * exploring, reviewing and refining well-considered design ideas that integrate spatialdesign knowledge throughout the development * making design judgements on relevant features of the design, in response to the brief, that inform the progression of design ideas and supporting design judgements with qualitative and/or quantitative data from research   For example:  The portfolio integrates spatial design knowledge to develop ideas that have explored, refined and reviewed well-considered modular kitchen designs for a given location.  The learner has made design judgements on the relevant aesthetic features (such as style, form, appearance, harmony, rhythm, contrast) that inform the progression of the modular kitchen design.  The learner has made design judgements on the relevant functional feature (such as durability, layout, safety, ease of use, workspace optimisation, analysis of anthropometric and ergonomic data) that inform the progression of the modular kitchen design.  The design judgements are supported with research on styles and appearance of kitchens and/or heights, dimensions and functional layout of existing kitchens.  *The above expected learner responses are indicative only and relate to just part of what is required.* |

Final grades will be decided using professional judgement based on an examination of the evidence provided against the criteria in the Achievement Standard. Judgements should be holistic, rather than based on a checklist approach.