Te Tāhuhu o te Mātauranga
Ministry of Education

# Great schools, great spaces

## Standard designs for secondary schools

June 2026

Version 1.0

Te Kāwanatanga o Aotearoa
New Zealand Government

Great schools need great spaces. Warm, dry, safe and light-filled classrooms. Areas that flex to how your teachers like to teach. Buildings and spaces that feel good and belong to your school and your community. Buildings that are easy to maintain.

We have collaborated closely with architects, engineers, builders, and educators to develop designs that achieve all this — consistently and affordably.  We have called these standard designs. They meet all New Zealand building requirements, make sense for most schools, and respond to your school's identity, your site, and the way your students learn.

Our plan is to keep improving these standard designs. As we gather feedback from schools, builders, and designers, we will review and update our standard designs to ensure they work for everyone.

# Acknowledgements

These standard designs have been developed through the collaboration of many teams and individuals.

We thank the architects, engineers, quantity surveyors, and builders who contributed to this process. Their expertise has helped ensure these designs are practical to build, easier to maintain, and deliver quality outcomes for schools and their communities.

We also acknowledge our educator reference groups, peak bodies, and curriculum writers for their contributions and shared insights. Their feedback has helped shape designs that support teaching and learning.

This shared effort has resulted in a set of standard designs that respond to the needs of schools across Aotearoa New Zealand.

athfield architects limited

athfield architects limited

athfield

JASMAX

McKENZIE HIGHAM ARCHITECTS

**Architecture**

Holmes

mesh we engineer.

MARSHALL DAY Acoustics

aurecon

**Engineering**

1929 MALTBYS DEFINING COSTS - MANAGING RISK - DELIVERING RESULTS

Beca

**Quantity Surveying**

**Project Management**

# Introduction

### What this guide covers

This guide features a range of standard designs for primary and intermediate schools, covering new teaching, library and administration (admin) spaces. It shows the available choices you can tailor to meet your school's needs and how we will work with you to make those decisions.

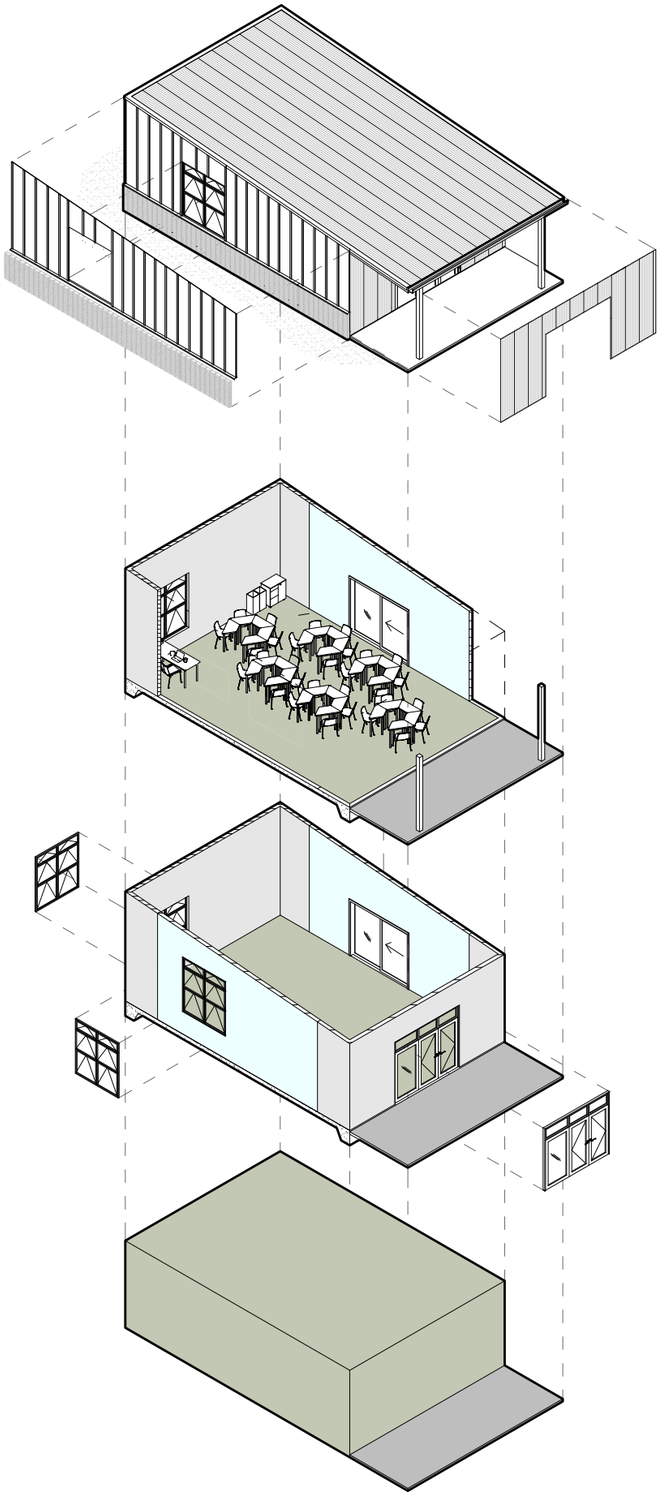
It does not cover every school building type or technical requirement. Our website has more detailed information about these options, including technical drawings of teaching spaces for secondary schools.

### How to use this guide

Use this guide to understand:

- the journey from planning to construction and handover
- what decisions are made during planning
- what layout and building material options are available
- what your school can choose and help shape
- what is already set in place by the standard designs.

Your project team will work with you to talk through the parts that apply to your project. Not every option in this guide will apply to every school or site.



Delivery

Planning

## Finishing choices

The colours, finishes, and some materials and connections and other details you can choose from that help the building fit with the rest of your school.

## Layout options

The internal classroom and amenity arrangements you can choose from to get the best fit for your learning environment.

## Standard designs

The building types, modules and systems you can choose from with our help.

## Planning

How we understand your needs, school site, and option preferences.

# What this means for your school

### Standardisation for clarity, cost, speed and quality

Using standard designs means your school can expect:

- a clearer process from planning through to handover
- open and clear communication from us at every stage of the process
- faster delivery because the key design work has already been done
- high-quality learning spaces
- layout options that we know work well, based on what we've heard and learned that best supports student learning.

Some parts of the design — such as structural systems, roofing, acoustic design, ceiling heights and window dimensions — are standard because they help us to better manage cost, quality and delivery time. But other parts can be chosen by you, so the final building works for your site, your students and your way of working.

### Choices to reflect your community and kaupapa

'Standard' does not mean the same. Within these design options, your school has choices — about building placement, how spaces are arranged, what materials best reflect your community and kaupapa, and how your buildings flow and connect with the rest of your environment.

# Planning for your site

Every school site is different. During planning, we work with you to look at how a new building will fit into your wider school environment.

This includes:

- connection to other interior and exterior learning spaces
- existing buildings and heritage features
- services and drainage
- sunlight, shade, trees, and wind protection
- ground conditions
- future development of your school.

Planning also considers how the building can reflect your school's identity and kaupapa, and support mātauranga Māori where appropriate. The aim is to make the standard design work well in your school and wider community, both now and into the future.

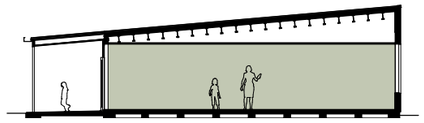
# Choosing the right building

Standard building types give us a reliable and consistent starting point for new school buildings. Choosing the right type of building for your school depends on your student roll, site, existing buildings, and future plans.

For secondary schools, we have produced two main options. A single-depth building (S-type) and a double-depth building (D-type).

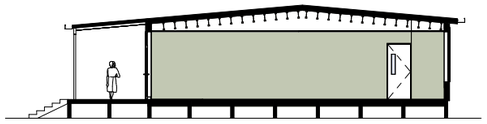
For many secondary schools, a single-depth single-storey teaching block will be suitable if there is enough space. On tighter sites or for larger schools, a double-depth building and/or two or three-storey option may be more suitable. In some cases, relocatable buildings may be the best fit for the need, site or timeframe.

Typologies



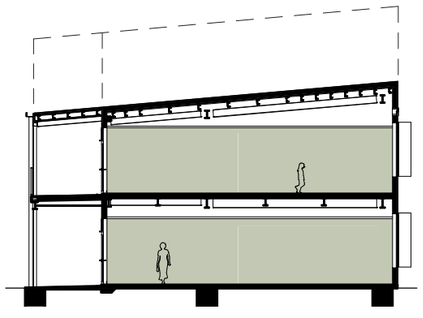
**S1 – Single-depth, single-storey**

**2 - 6 teaching spaces**



**S1 – Single-depth, single-storey (gabled roof)**

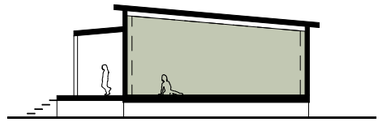
**2 - 6 teaching spaces**



**S2 – Single-depth, two-storey**

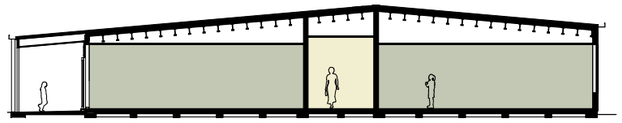
**S3 – Single-depth, three-storey (shown dashed)**

**6 - 18 rteaching spaces**



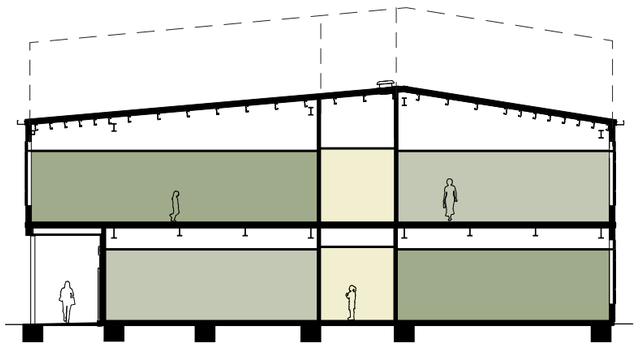
**OMB 2.5 – Relocatable, single-storey**

**1 - 4 teaching spaces**



**D1 – Double-depth, single-storey**

**6 - 10 teaching spaces**



**D2 – Double-depth, two-storey**

**D3 – Double-depth, three-storey (shown dashed)**

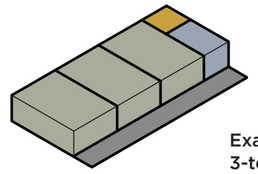
**12 - 33 teaching spaces**

# How our building modules work

Standard designs are a series of modular building blocks that can be added and organised to create a building that is suitable for a school's needs. This gives schools choice and flexibility based on proven designs to ensure buildings are well planned, consistent, and delivered efficiently.

A teaching module provides a full teaching space with some extra area for resources as needed. Amenity modules can provide toilets, resources, admin or support spaces, depending on the agreed project scope and what already exists on your site. We also have standard modules for stairs, window shading, bag storage and other supporting elements. Over time, we may develop more standard modules as we identify needs.

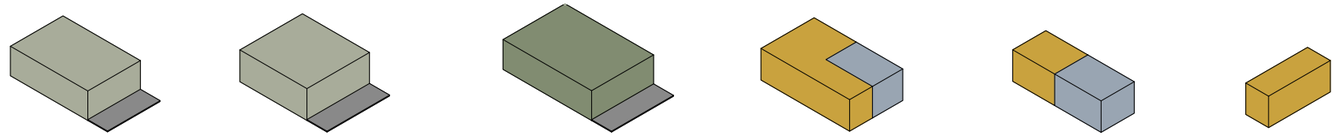
## Modules and examples



Example:
3-teaching-space secondary school block with half bay amenities

x3

x1



**Teaching Space – Secondary (S)**

A general teaching space with teaching wall and flexibility in resources and layout.

Net floor area 70m²

7.2m x 10.3m

x10

**Teaching Space – Secondary (D)**

A general teaching space with teaching wall and flexibility in resources and layout.

Net floor area 70m²

8.4m x 8.9m

x4

**Teaching Space – Specialist**

A specialist teaching space with flexibility in layout and proximity to ancilliary spaces.

Net floor area 95m²

8.4m x 12.0m

x4

**Resource / amenities (full-bay)**

Provides supporting spaces such as toilets, resource areas, admin or staff spaces, depending on your project.

Net floor area varies

7.2m x 10.3m

**Resource / amenities (half-bay)**

Provides supporting spaces such as toilets, resource areas, admin or staff spaces, depending on your project.

Net floor area varies

4.1m x 10.3m

x1

**Resource / breakout**

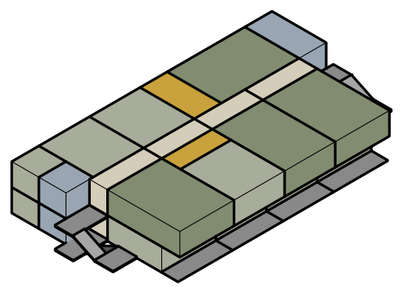
Provides supporting spaces such as resource areas, admin or staff spaces, depending on your project.

Net floor area 25m²

8.4m x 3.6m

These modules can be combined in different ways to suit your site and your school's particular needs.

Additional modules support how the building works day-to-day, such as stairs, verandahs, shading and storage.



Example: 14-teaching-space secondary school block with half bay amenities module.

Note:
Two-storey block shown; three-storey block similar; full amenities bay can be located on end, or centrally to suit site and layouts.

# Choosing teaching space layouts

Teaching spaces can be arranged in different ways to support your school's teaching and learning practices. The standard layouts show a range of options, including:

- open teaching areas
- wet areas
- breakout spaces
- areas for storing resources
- connections between classrooms.

Your project team will work with you to help choose the layout option, or combination of options, that best supports your students, staff, and day-to-day needs.

Each layout module is based on a detailed brief that summarises a school's needs, and prioritises different ways of teaching and using space. These briefs outline the typical equipment and resources used in classrooms and helps ensure there are practical, usable zones to support teaching and learning.

If you feel these layouts don't fully meet your education needs, we will work with you to ensure your practices are supported in your new building.

Legend

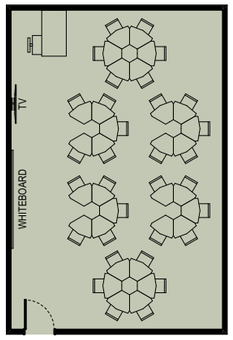
General teaching

Indicative furniture (school-supplied)

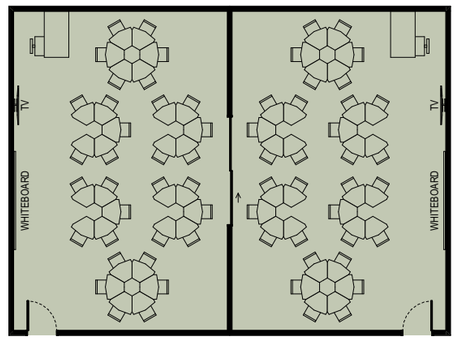
SCALE 1:200 at A3

0 1 3 5 10m

## S-type

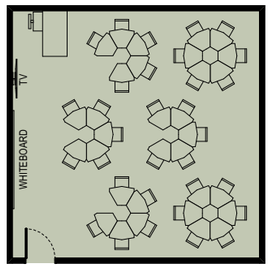



Typical S-module, example layout

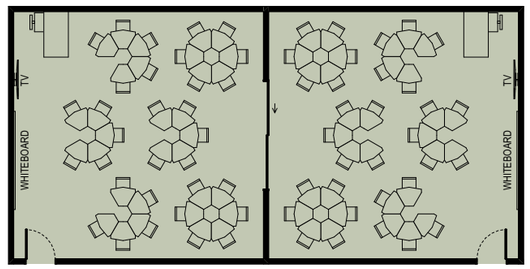



S-type interconnected example

## D-type




Typical D-module, example layout




D-type interconnected example

# Examples: Specialist teaching spaces

If your project involves specialist teaching spaces, your project team will work with you to choose options that best support your school's needs.

You can use our secondary school teaching space layout catalogue  to find more information about:

- layout arrangements
- resource spaces
- door and window options
- proposed wall, floor and ceiling finishes
- what is supplied as part of your project and what furniture, fixtures and equipment (FF&E) are supplied by your school.

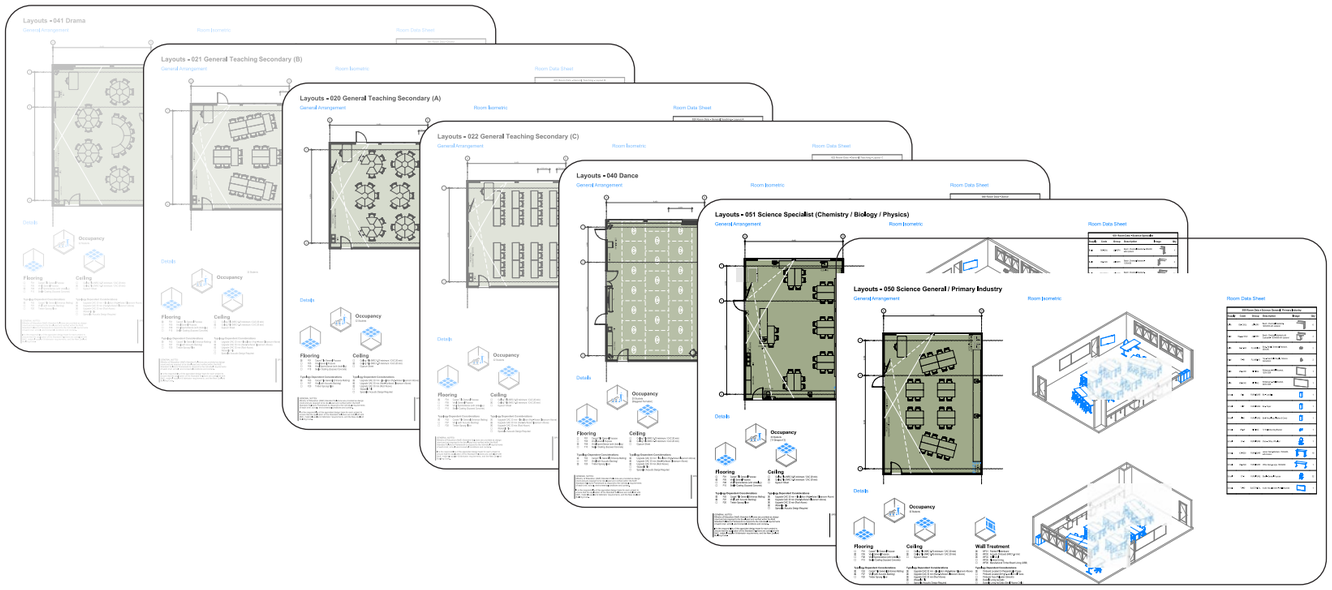
The layout catalogue for secondary teaching spaces includes the following:

- technology and computer sciences
- music and performing arts
- sciences
- automotive
- visual arts
- food and hospitality
- textiles and multi-materials.

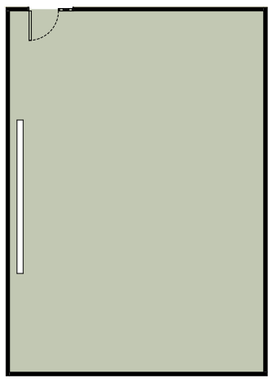
The catalogue also includes portrait and landscape layout options to suit different configurations your school may need. If our layout options don't meet your needs, your project team will work with you to ensure your new building supports how you teach and use your spaces.

## Layout catalogue

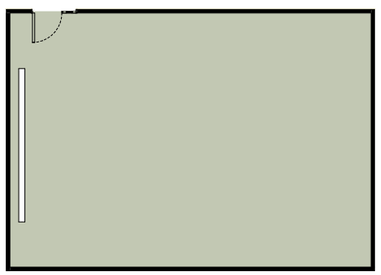
**Standard layouts for secondary school teaching spaces**




## Classroom orientation



**Portrait orientation**



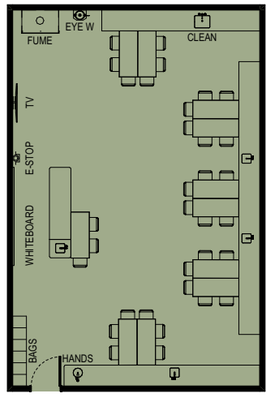
**Landscape orientation**

# Examples: Science teaching spaces

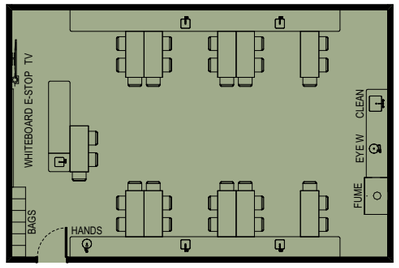
These example layouts shows science teaching spaces for our single and double-depth building designs. Your project team will work with you to choose the layouts that best support your teaching and learning.

Our layout designs also include resource spaces to support each specialist space type. Your project team will work with you to understand if resource spaces are needed, what size they need to be, and where they are best located to support your school.

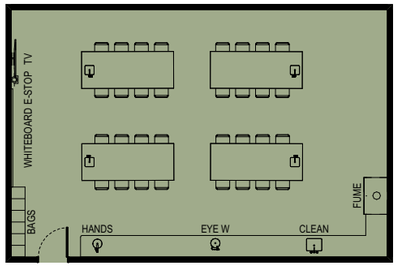
## Science specialist (chemistry / biology / physics)




Layout A

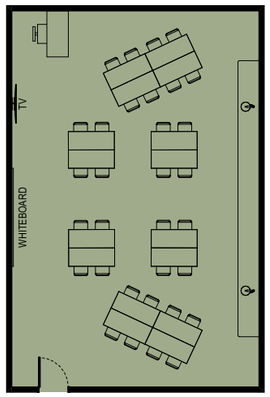



Layout B

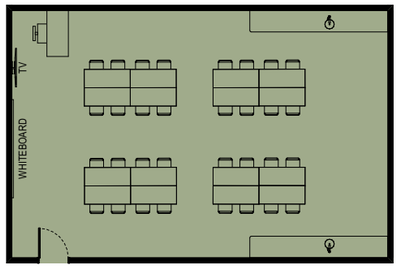



Layout C

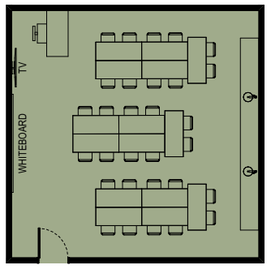
## Science general / primary industry




Layout A




Layout B




Layout C

Legend

General teaching

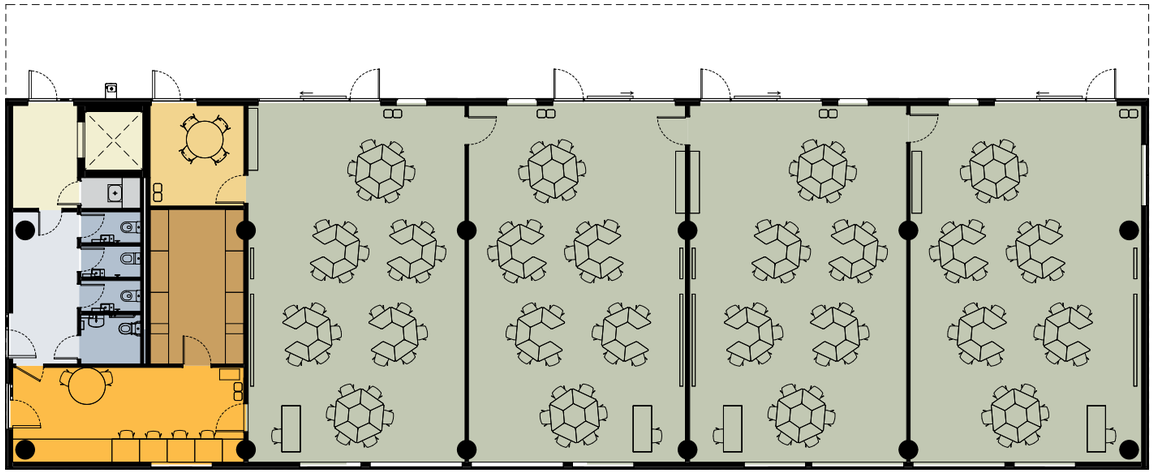
Indicative furniture (school-supplied)

SCALE 1:200 at A3

0 1 3 5 10m

# Examples: Single-depth teaching

These examples show how teaching, amenity, admin and resource layouts could be arranged within a single-depth teaching block to support a school's needs.



## Example one: A single-depth multi-storey building with 4 general teaching spaces (S2)

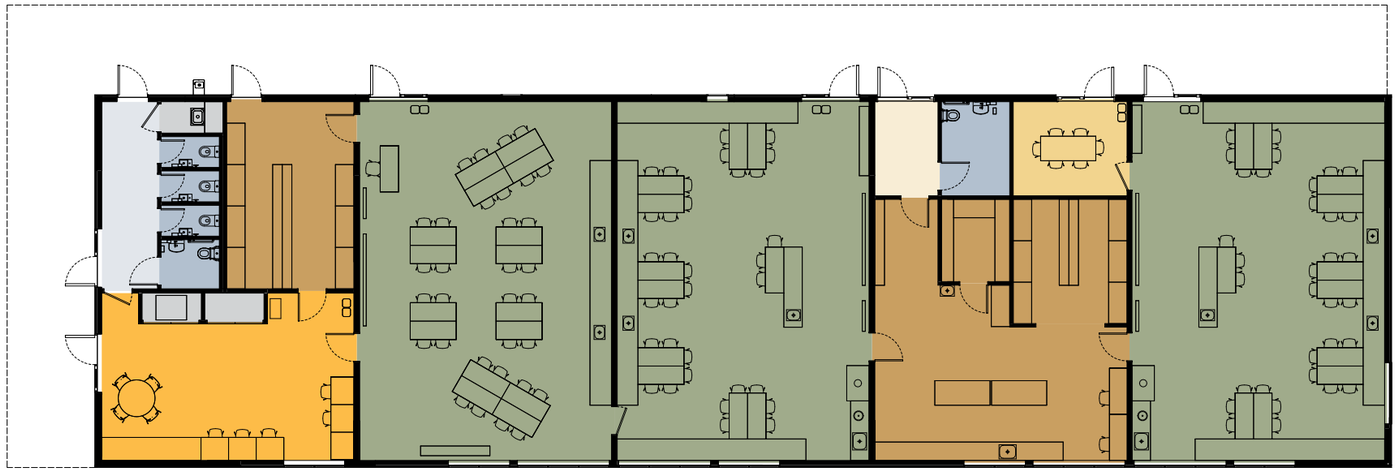
**This example includes traditional teaching layouts, along with toilet and lift amenities and space for resource and admin.**

Legend

- General teaching space
- Wet area
- Resource
- Breakout space
- Admin & resource space
- Indicative furniture (school-supplied)
- Column (multi-storey)
- Service / emergency-access door

SCALE 1:200 at A3

0 1 3 5 10m



## Example two: A single-depth, single-storey building with 3 specialist spaces (S1)

**This example includes traditional science teaching spaces with a connected technician room and chemical store, along with toilets, a teacher workroom, a meeting room and resource spaces.**

# Examples: Double-depth teaching

The example shows how our teaching, amenity, admin and resource layouts could be arranged within a double-depth teaching block to support a school's needs.

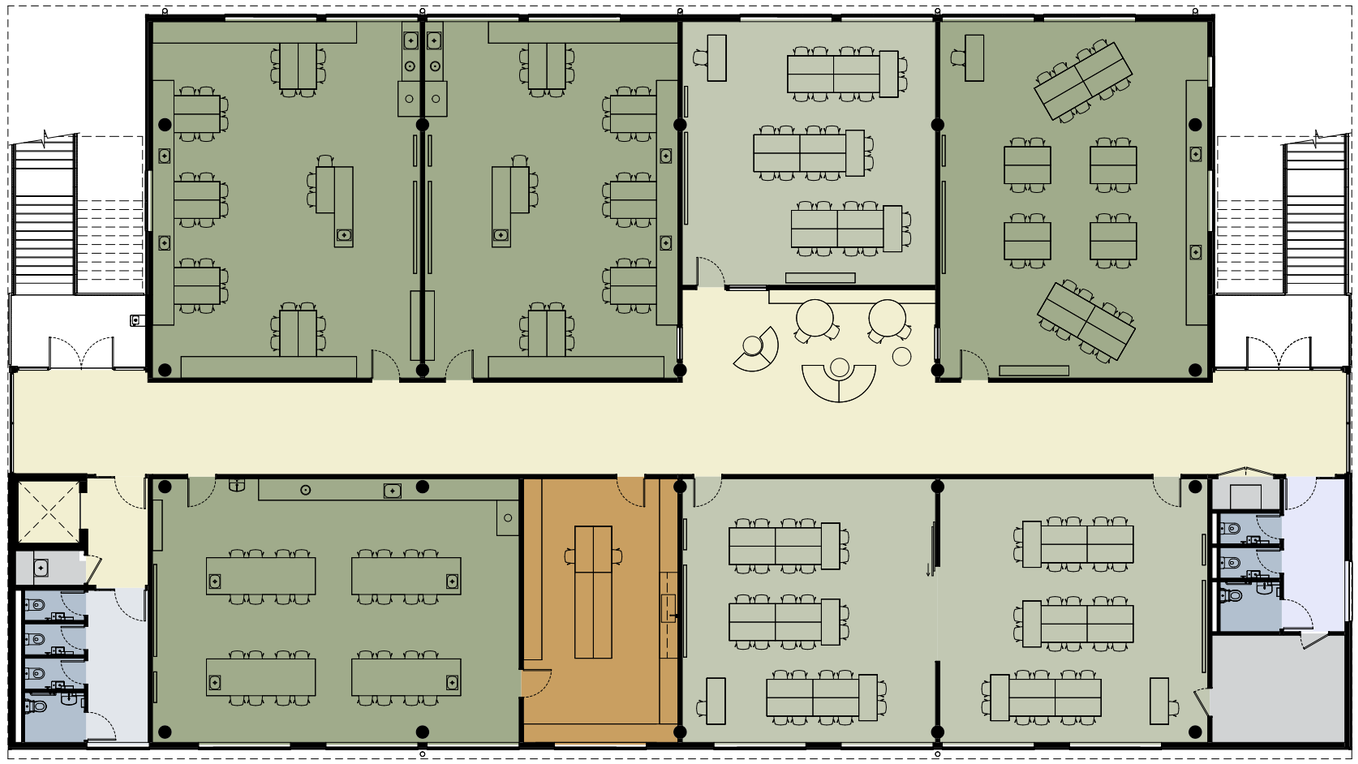
Your project team will work with you to confirm what arrangement works best for your project and school site.

Legend

- General teaching space
- Wet area
- Resource
- Breakout space
- Admin & resource space
- Indicative furniture (school-supplied)
- Column (multi-storey)
- Service / emergency-access door

SCALE 1:200 at A3

0 1 3 5 10m



**Example three: A double-depth multi-storey building with 3 general and 3 specialist teaching spaces (D2)**

**This example shows a mix of teaching layouts, along with toilet and lift amenities, and spaces for resource and teacher workroom use.**

# Choosing library & administration layouts

## Library layouts

Standard library layouts have been designed for different school sizes. They are based on the same module system as the teaching spaces, which helps make the design easier to plan and deliver.

If a library is part of your project scope, we will work with you to confirm which layout best suits your student roll, site and wider school plan.

## Administration layouts

Standard admin layout examples are available for different school sizes. These layouts include spaces that support the day-to-day operation of a secondary school, such as:

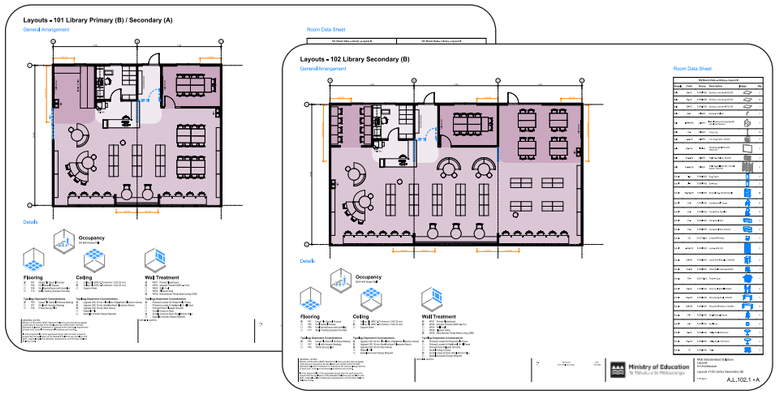
- reception
- careers
- wellbeing
- staff workrooms
- leadership spaces.

Administration layouts can be adjusted to suit how your school operates and what you currently have on site. You can use our briefing templates to define your school's specific needs.

You can work through more in-depth layout details in our library and secondary school admin layout catalogues.

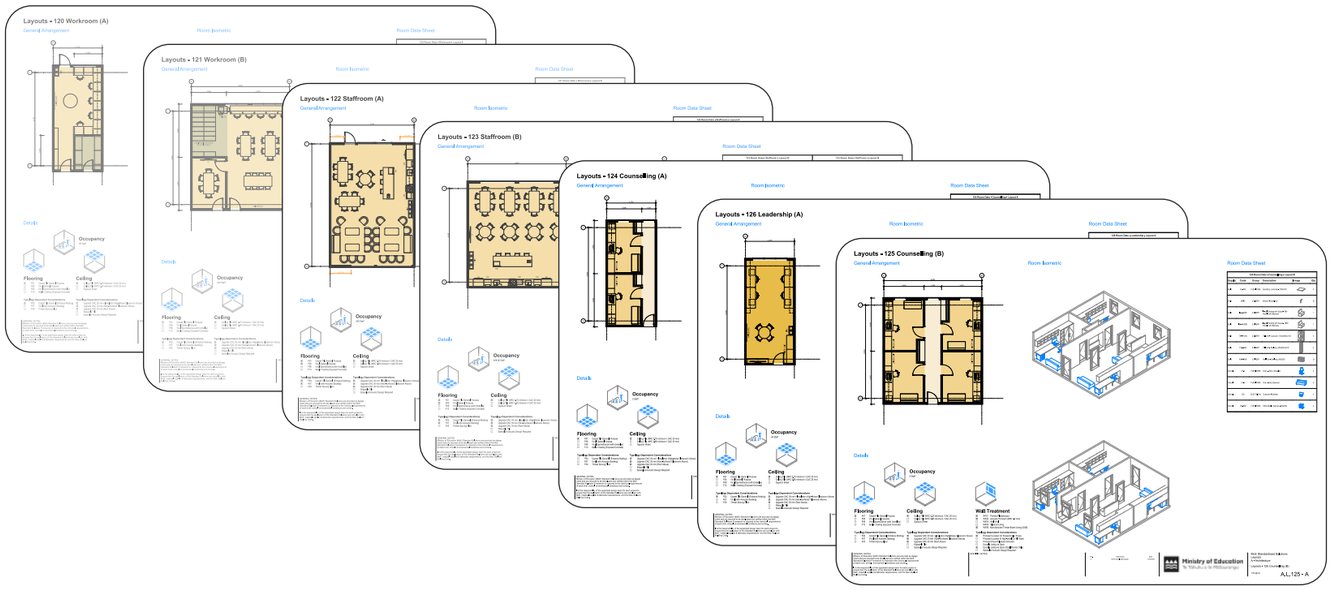
## Layout catalogue

**Standard layouts for school library spaces**




## Layout catalogue

**Standard layouts for school admin spaces**



# Choosing materials & finishes

Your school will be able to choose from a range of materials and finishes that have been proven in school environments. These selections are included to help the building better align with your school's identity, while supporting long-term maintenance and value for money.

A range of other material choices are listed in this table. However, some choices may be limited by climate, orientation, durability, maintenance, cost or technical requirements etc. Your project team will help guide you through these options and finalise which ones will work best for you.

| | Element | Options you can choose from | Finishes you can choose from |
|---|---|---|---|
| Exterior | **Wall cladding** | A - Profiled metal cladding | Standard range |
| | | B - Brick or concrete masonry veneer | Standard range |
| | | C - Painted fibre cement | Wide spectrum of paint finishes |
| | **Roofing** | NA (metal-clad warm roof) | Standard range |
| | **Exterior windows and doors** | NA (powder-coat finish aluminium frames) | Standard range |
| | **Balustrade** | A - Vertical open balusters | Hot-dip galvanised (HDG) finish or, HDG with paint finish |
| | | B - Perforated infill panels | Hot-dip galvanised (HDG) finish or, Powdercoat finish over aluminium |
| | **Bag shelter** | Where contextually required | NA |
| | **Glazing manifestation (also interior)** | NA (vinyl applied to glazing) | School-specific design |
| Interior | **Teaching space layout** | Refer available room data sheets | |
| | **Wall linings** | A - Dado at low level, pinboard above | Standard range |
| | | B - Full-height pinboard | Standard range |
| | | C - Pinboard to door head, paint above | Standard range |
| | | D - Dado, pinboard, paint above | Standard range |
| | **Dry-floor finishes** | NA (carpet tile) | Standard range |
| | **Wet-floor finishes** | NA (vinyl) | Standard range |
| | **Inter-class connection** | Openings from standard types | Standard range |

# Exterior materials & finishes

Exterior materials and finishes help define how a building looks, performs, and weathers over time. Standard exterior materials provide durable, cost-effective solutions that respond to different sites, climates, and school environments.

Your school can choose from a range of materials and colours to reflect your identity and how the building fits within the wider school environment.

Standard exterior claddings include profiled metal, brick, and painted fibre cement. These can be used in different ways, depending on building height, location, and environmental conditions.

Windows, doors, balustrades, roofs, and shading elements are also standardised to ensure quality, safety, durability and long-term performance.

**Balustrades**
- Option A: Open vertical balusters
- Option B: Perforated infill panels

**Roofs**
- Profiled metal
- Standard range of coil-coated metal finishes

**Wall cladding**
- Option A: profiled metal
- Option B: brick (part height)
- Option C: painted fibre cement
- Combinations of options available

**Windows & doors**
- Powder-coat finish to aluminium frames
- Position adjustments to respond to site and interior layouts
- Solar shading if needed

**Siteworks**
- Project-specific design

**Glazing manifestation**
- Project-specific design

Options

Finishes

# Exterior cladding

## Choosing cladding

Your project team will work with you to choose cladding from the available options, taking into account:

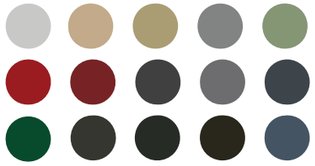
- the building type and height
- the local climate and exposure to weather
- seismic and structural requirements
- long-term maintenance and durability
- how the building fits within the wider school environment.

Not all cladding options are suitable in every situation. Some combinations may be limited by site conditions or building configuration.

## Option A: Profiled metal

- Profiled metal cladding (ie corrugated, trapezoidal) from standard ranges
- Factory-coated metal (ie Colorsteel, Colorcote)
- Finish based on standard proprietary colour ranges within MoE requirements

**Finishes**



## Option B: Brick

- Brick or concrete masonry veneer cladding
- Use at low-level only (refer examples below)
- Use in combination with fibre cement (single storey only) or profiled metal at high level where applicable
- Finish based on standard ranges

## Option C: Painted fibre cement

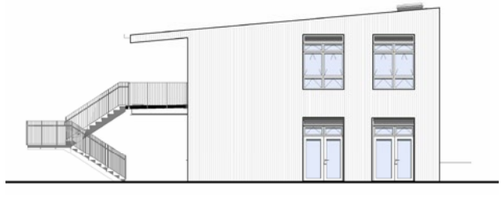
- Medium-density fibre cement sheet with vertical cover battens
- Use at low-level only (refer examples below)
- Use in combination with profiled metal at high level for multi-storeys
- Paint finish in wide spectrum of colour ranges within MoE requirements

**Examples**

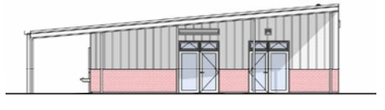
Above: Profiled metal cladding
Below: Veneer brick cladding

Above: Painted fibre cement
Below: Veneer brick cladding

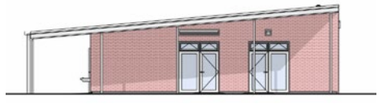
Above: Profiled metal cladding
Below: Painted fibre cement



Profiled metal cladding

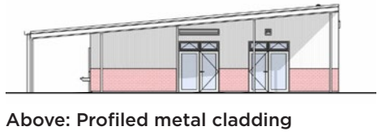


Above: Painted fibre cement
Below: Veneer brick cladding

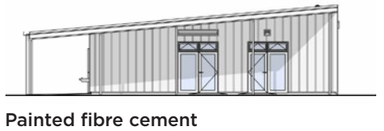


Veneer brick cladding (low-seismic zones only)

Profiled metal cladding



Above: Profiled metal cladding
Below: Veneer brick cladding



Painted fibre cement

# Examples: Exteriors

These examples show how standard exterior materials and finishes may be used in different combinations. When selecting colours and finishes, it's important to consider sunlight, glare, heat gain, and how the building relates to its surroundings. Some colours may be limited if they affect building performance or durability.

These examples are illustrative only. Final selections will be confirmed with you during the design process.

## Option A: Profiled metal

- Full-height profiled metal cladding
- Bag shelters to suit climate
- Open painted balustrade

## Option B: Brick

- Low-level brick cladding (full height on single storeys in low seismic areas only, but brick dado possible in all areas)
- Profiled metal cladding on upper level of multi-storey above brick
- Open natural-finished balustrade


## Option C: Painted fibre cement

- Painted fibre cement cladding
- Profiled metal cladding to upper level of full-height two-storey walls
- Infill balustrade panels
- Bag shelters to suit climate

# Interior materials & finishes

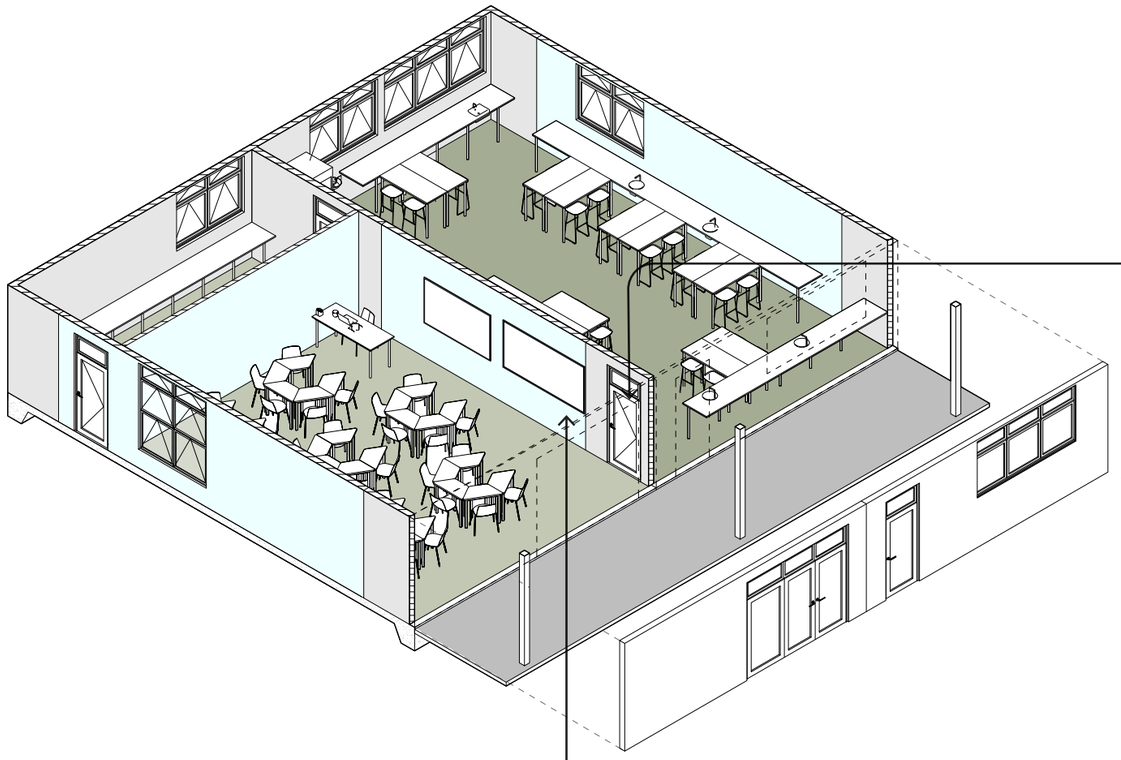
Interior materials play an important role in how teaching spaces feel, function, and perform. Standard interior materials balance durability, ease of maintenance, cost, and comfort.

Your school will be able to choose finishes that reflect your identity and support how your spaces are used.

### Using Furniture, Fixtures and Equipment (FF&E) funding

The detailed primary classroom layouts on our website explain what's included in the base build and what's purchased using FF&E funding.

[Furniture and equipment funding for state schools]

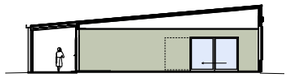


Inter-class connection

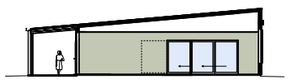
- Sliding and swing doors from standard types
- Option for full opening upto 7m wide where required.

**A. Solid door for access only**

**B. Single glazed sliding door over sidelight**



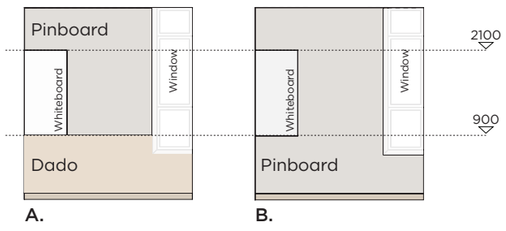
**C. Double glazed sliding doors over wall**



**D. Triple glazed sliding doors over wall**

Options

School specific




### Wall linings

- Mix of high-wear timber-panel dado and/or acoustic pinboard lining
- Option for paint-finished plasterboard at high level only
- Selection to be made in conjunction with room data sheets to achieve required acoustic performance
- Finishes based on standard ranges

### Wet-area flooring

- Vinyl
- Finish based on standard ranges

### Dry-area flooring

- Carpet tile
- Finish based on standard ranges

### Glazing manifestation

- Project-specific design

# Examples: Interiors

These examples show how standard layouts, materials, and finishes can be combined to create practical and welcoming learning spaces.

These examples are illustrative only. Final selections will be confirmed with you during the design process.

**Option A:**

- High-wear dado, pinboard above
- Connection with adjacent teaching space via glazed sliding doors

**Option B:**

- Dry teaching space
- Full-height pinboard

**Option C:**

- Wet teaching space
- High-wear dado, pinboard above

# Daylight, ventilation & comfort

## Natural light

Standard designs are developed to provide good natural light under typical site conditions.

During planning, we consider how the building is positioned on your site — including orientation, nearby buildings, and trees. This helps to ensure that spaces feel bright, comfortable, and usable throughout the day.

In most cases, the standard design will already meet daylight requirements. Where site conditions are more constrained, the project team may review lighting levels to confirm that the spaces will still perform well.

## Heating and ventilation for comfort

Standard designs aim to provide comfortable learning spaces year-round, using simple, efficient systems.

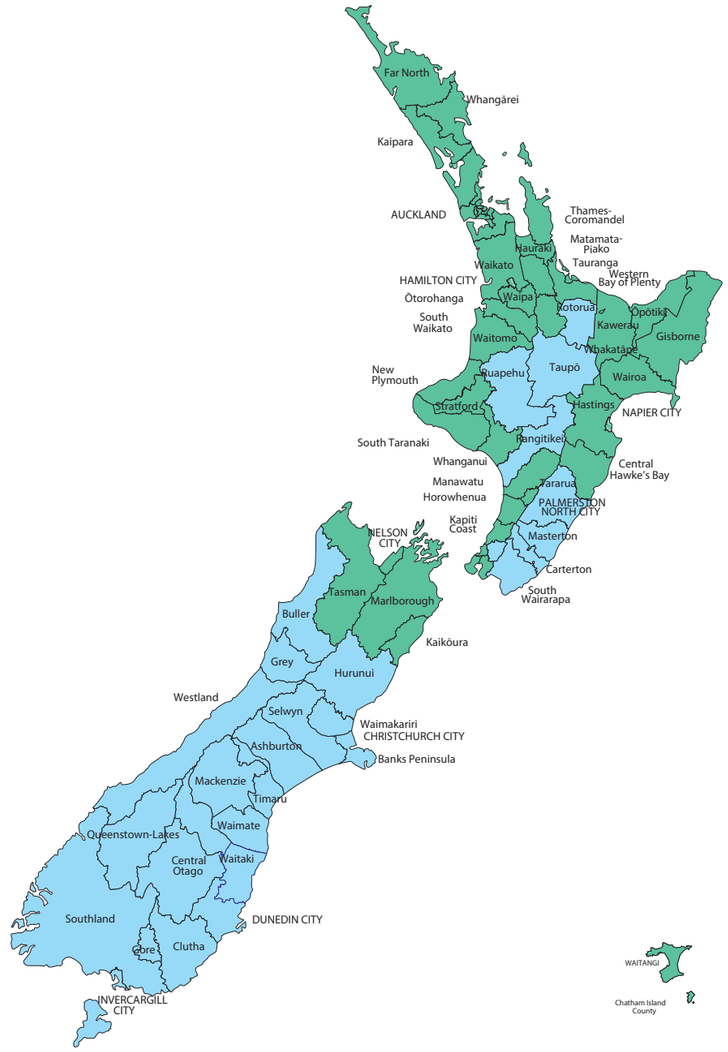
The preferred approach combines natural ventilation with straightforward heating. This works well in most climates and helps reduce cost, energy use, and long-term maintenance.

We also consider your climate zone and site conditions when planning. We take into account the six climate zones across Aotearoa | New Zealand and consider local environmental constraints such as noise. In some situations – such as colder climates or noisy locations – alternative heating and ventilation systems may be needed.

## Services

We will work with you to understand any existing infrastructure and services already in place. This includes discussing your current systems and any suppliers you may already be working with, so we can factor these into the project. Examples include:

- ICT
- Security
- PA systems
- fire alarms.




**Climate zones 1, 2 & 3**

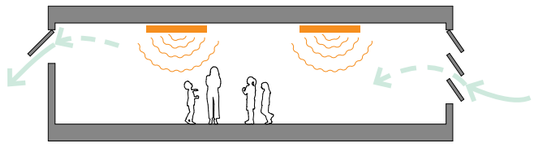
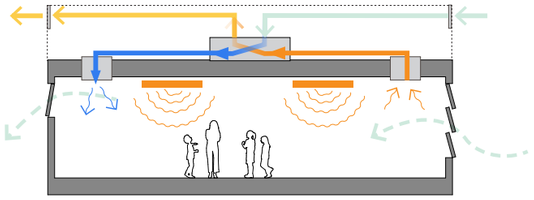
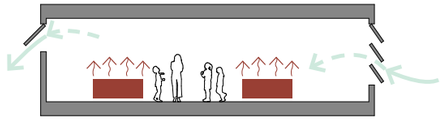
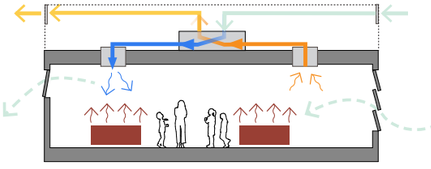
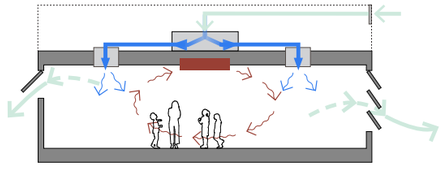
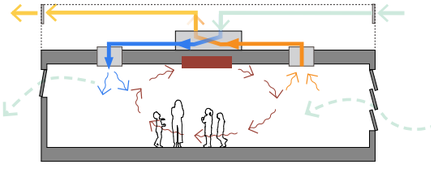
**Warmer or temperate climates**

**Climate zones 4, 5 & 6**

**Colder or alpine climates**

**'Colder climates' are a consolidation of Climate Zones 4, 5 and 6 as defined by the New Zealand Building Code (NZBC).**

# Heating & ventilation

| | NZBC climate zones 1, 2 & 3 | NZBC climate zones 4, 5 & 6 |
|---|---|---|
| **Default**<br>This is the standard approach for most schools. It provides a simple, effective solution that works well in typical site and climate conditions and is the starting point for all projects. |  <br>Electric ceiling radiators and natural ventilation. |  <br>Electric ceiling radiators and ducted mechanical heat recovery. Natural ventilation during summer. |
| **Alternative 01**<br>This option may be used where site conditions require a different approach.<br>Your project team will work with you to confirm whether this will work for your building and layout, and whether it is needed, based on site constraints, or existing infrastructure. |  <br>Airsource heat pumps and wall radiators with natural ventilation. |  <br>Airsource heat pumps, wall radiators and ducted mechanical heat recovery. Natural ventilation for summer. |
| **Alternative 02**<br>This option is used only in specific situations where other approaches are not suitable.<br>Because of upfront and ongoing cost, this option should be supported by a clear reason as part of the project process. |  <br>Heatpump VRF-AC cassettes and ducted outdoor air supply. Natural ventilation openings provided for optional use. |  <br>Heatpump VRF-AC cassettes and ducted mechanical heat recovery unit. Natural ventilation openings for optional use. |

# Working with you

### Next steps & feedback

At each stage, your school plays a key role in shaping how standard designs are used to plan and deliver new school buildings.

If you have any questions about this guidance and how it relates to your school, please contact your school property advisor or project team. They can answer your queries and support you as needed.

Our goal is to continue improving the quality of school property, and we welcome your feedback. Contact us at:

property.improvement@education.govt.nz

**He mea tārai e mātou te mātauranga kia rangatira ai, kia mana taurite ai ōna huanga**

**We shape an education system that delivers equitable and excellent outcomes**