

## Buildings designed for future-ready learning

# Kōwhai

Offsite manufacturing is a reliable and efficient way of providing high-quality learning spaces to schools. These classrooms meet the latest Building Code requirements and the Ministry's Designing Schools New Zealand (DSNZ) standards, are fully weathertight, safe, and ready to support learning.

The kōwhai tree can stand alone or spread wider with multiple trunks. Our Kōwhai building can adapt and thrive in varying environments, by standing alone or connecting to make larger teaching blocks, with an interior that is adaptable for different learning uses.



## Kōwhai

# Key features

The Kōwhai is designed to be flexible for a variety of educational purposes. Its internal spaces can meet the needs of both open and cellular learning.

### Sink or art benches

Each teaching space includes a sink bench or art bench, to suit school requirements.

**Single classroom:** One sink bench or one art bench.

**Double classroom:** One sink bench and one art bench.

**Triple classroom:** One sink bench and two art benches.

**Quad classroom:** One sink bench and three art benches.

### Doors

One set of two doors per classroom area (two sets for a double space, three for triple, four for quad), featuring glazed panels as required for fire egress. Door configurations can be modified as variations.

### Heating

Each teaching space includes radiant heaters or heat pumps, positioned for optimal thermal comfort and efficient performance.

### Acoustics

Acoustic wall linings and ceiling treatments reduce reverberation and noise, creating a focused learning environment and supporting clear communication.

### Lighting

LED lighting provides energy-efficient, even illumination. Natural light from well-placed windows complements the design to support learning activities.

### Flooring

Carpet tile and vinyl options available. (Note: extensive vinyl use may impact acoustics.)

### Colour customisation

Range of colour options for carpet, acoustic linings, and accent cladding.

### Decking and access

A covered deck (2.5m deep), with an awning providing full-length coverage.

Ramps and/or steps. Handrails included where necessary.

### Ventilation

Natural ventilation is provided through top-opening windows with safety stays and manual openers, supporting cross-ventilation and good air quality.

### Additional features

› Bag hook rails.

### Customisation for school requirements

Buildings replacing existing teaching spaces are typically like for like. Any variation or additional items should be discussed at project initiation.

Cultural consideration given to placement of bathrooms, benches, and materials.

## Delivery process

Where possible, phases occur concurrently.

### 1 MONTH

#### Initial site visit

The average time for delivery of your new classroom from the initial site visit to handover is 9 months. This is assuming decisions are made in a timely manner and standard colour and layout options are selected.

### 1-2 MONTHS

#### Investigation/planning

Space requirement identified  
Due diligence

### 1-6 MONTHS

#### Design and pricing

Project specifics agreed  
Supplier submits work documents

### 3-6 MONTHS

#### Construction phase

Factory construction  
Building delivery  
Site works

### 6 MONTHS

#### Project handover and close out

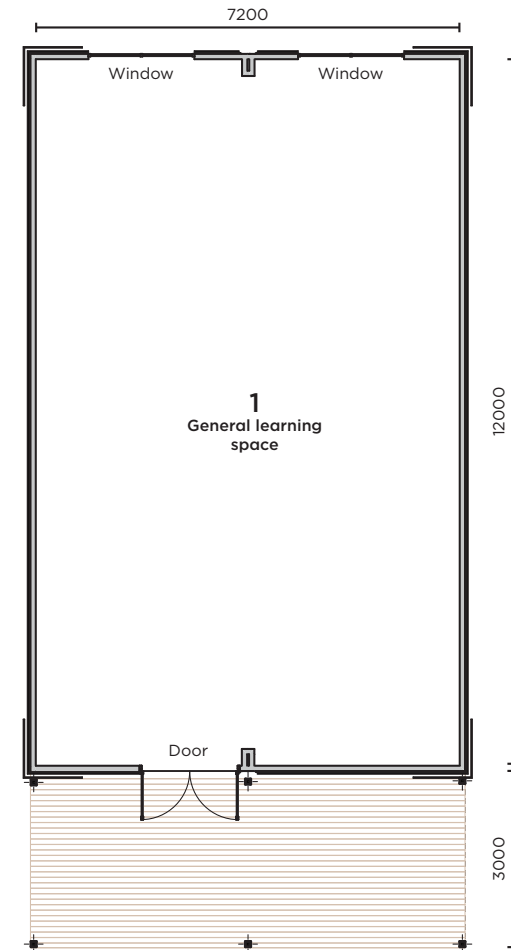
Certification issued  
School occupies new classrooms

# Classroom layouts

Layouts are designed for general teaching within a primary or secondary school. They support good learning outcomes and respond to a school's preferred ways of teaching.

Standardised layouts enable quicker delivery and can be replicated as the number of classrooms increase.

Single classroom – default layout A



Single learning space

92m<sup>2</sup> gross building size + decking. 86m<sup>2</sup> net area.

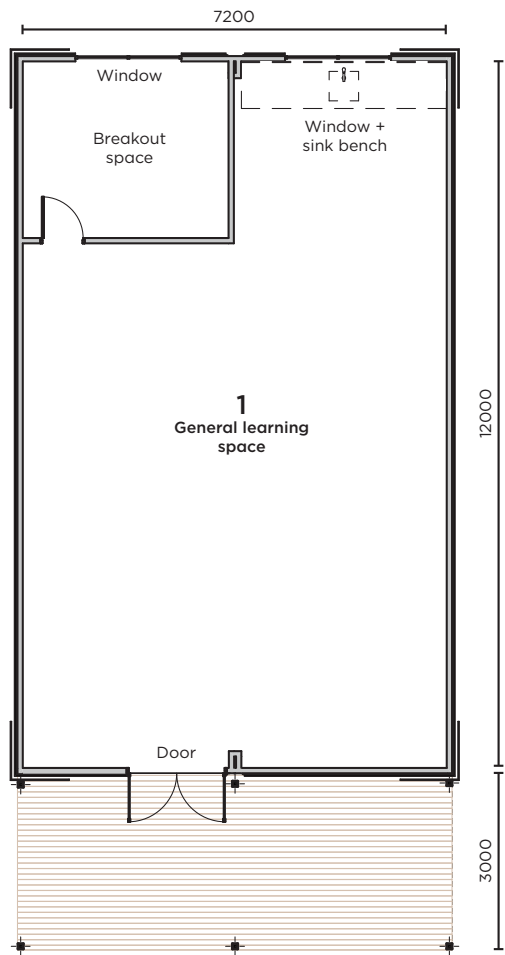
Single classroom

Single classroom - alternate layout B



Single learning space with sink bench  
92m<sup>2</sup> gross building size + decking. 86m<sup>2</sup> net area.

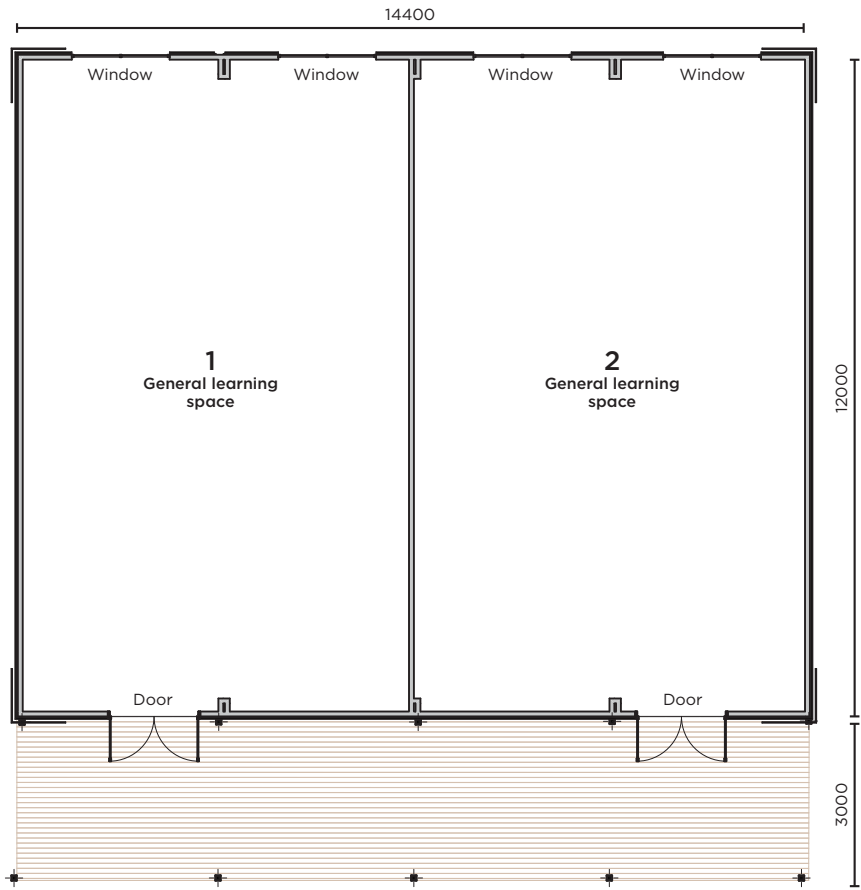
Single classroom - alternate layout C



Single learning space with breakout space and sink bench  
92m<sup>2</sup> gross building size + decking. 86m<sup>2</sup> net area.

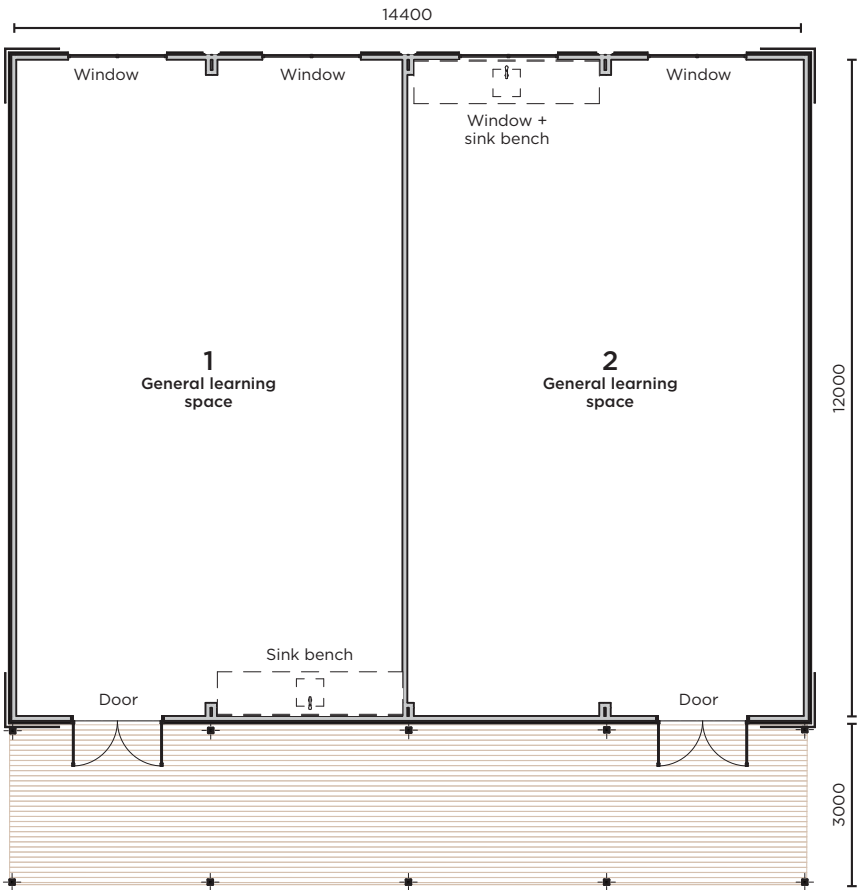
Double classroom

Double classroom - default layout A



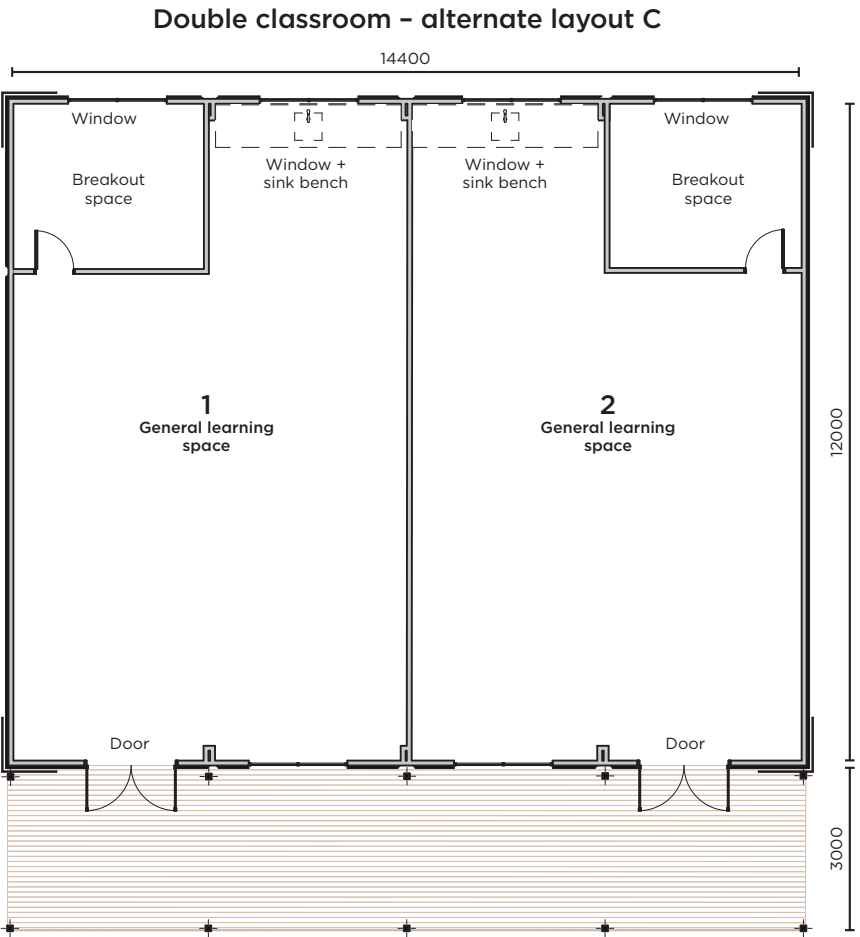
**Double learning space**  
180m<sup>2</sup> gross building size + decking. 177m<sup>2</sup> net area.

Double classroom - alternate layout B



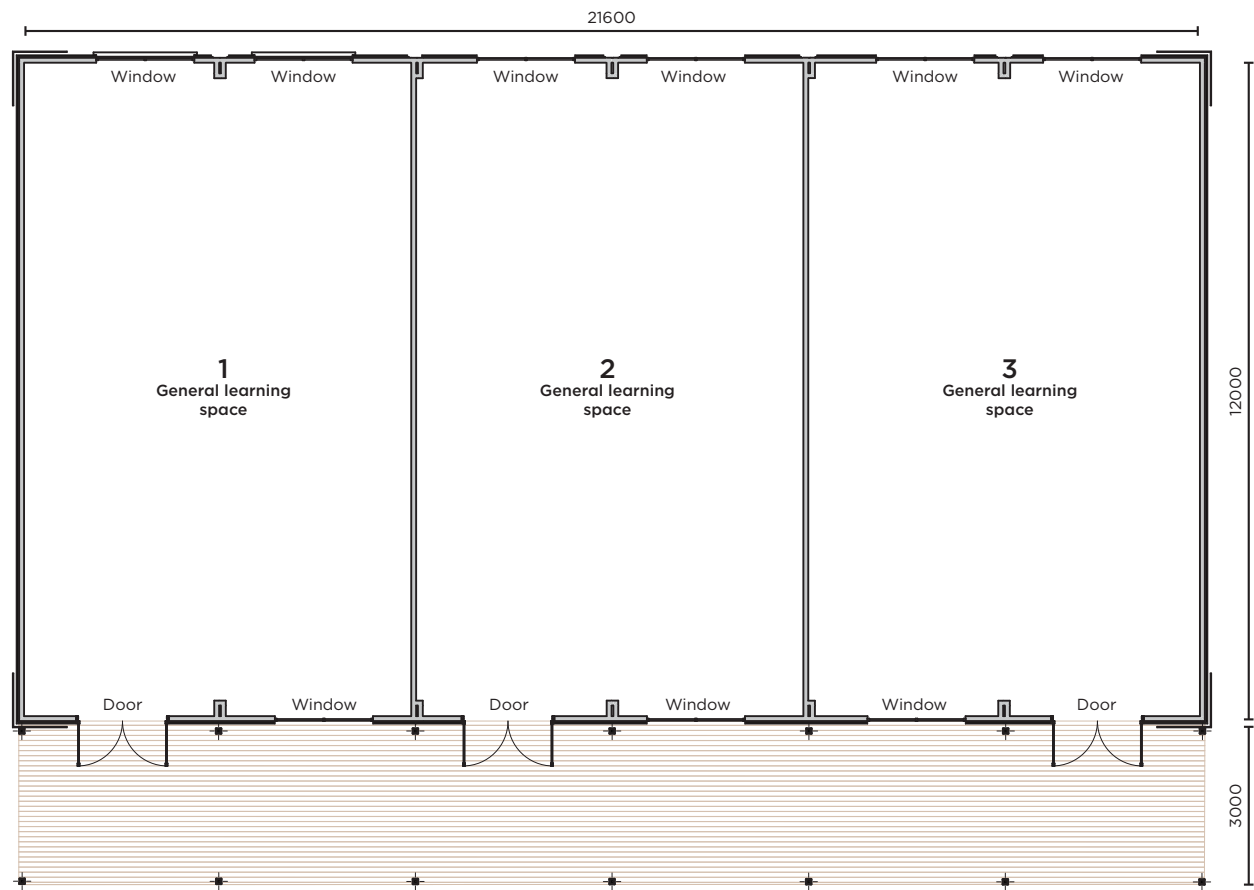
**Double learning space with sink benches**  
180m<sup>2</sup> gross building size + decking. 177m<sup>2</sup> net area.

Double classroom



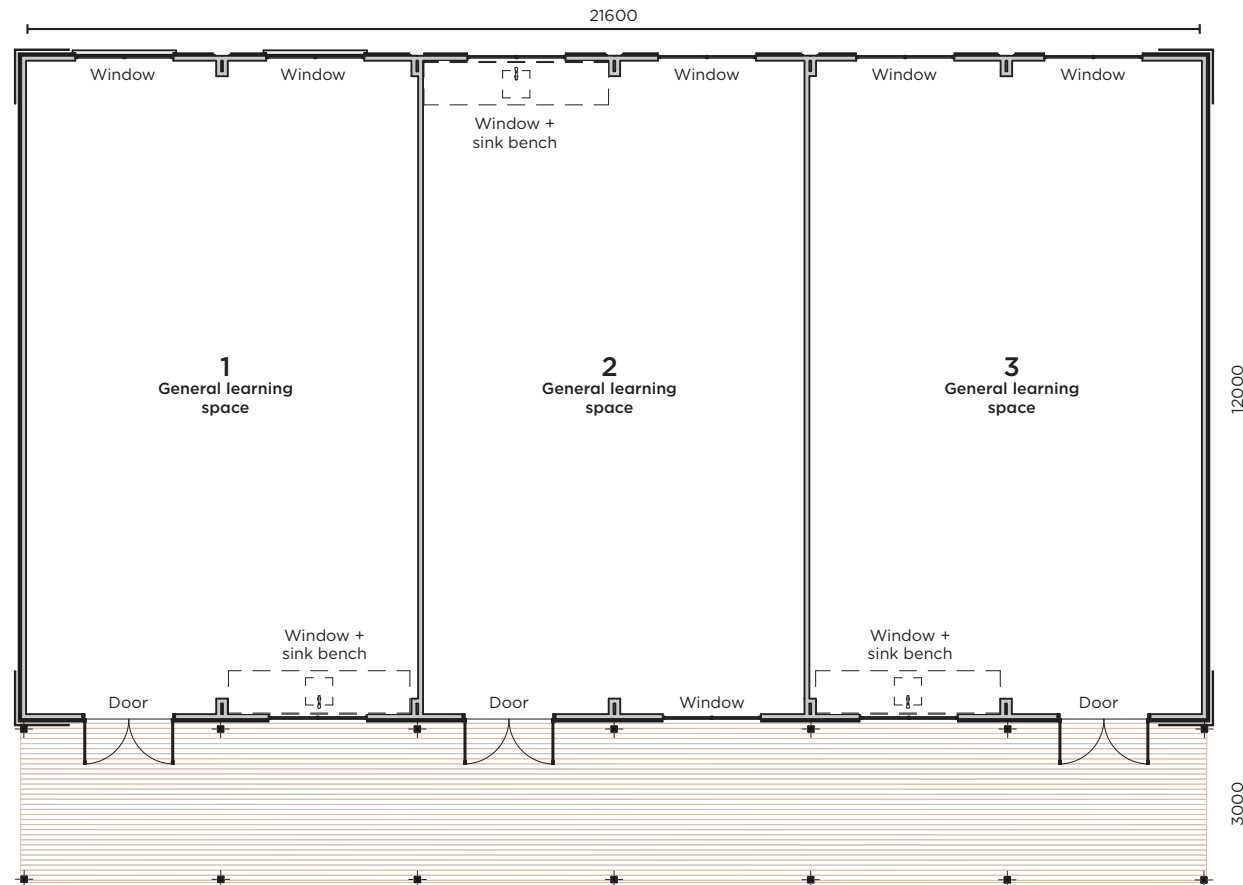
**Double learning space with breakout spaces  
and sink benches**  
180m<sup>2</sup> gross building size + decking. 177m<sup>2</sup> net area.

Triple classroom – default layout A



**Triple learning space**  
268m<sup>2</sup> gross building size + decking. 259m<sup>2</sup> net area.

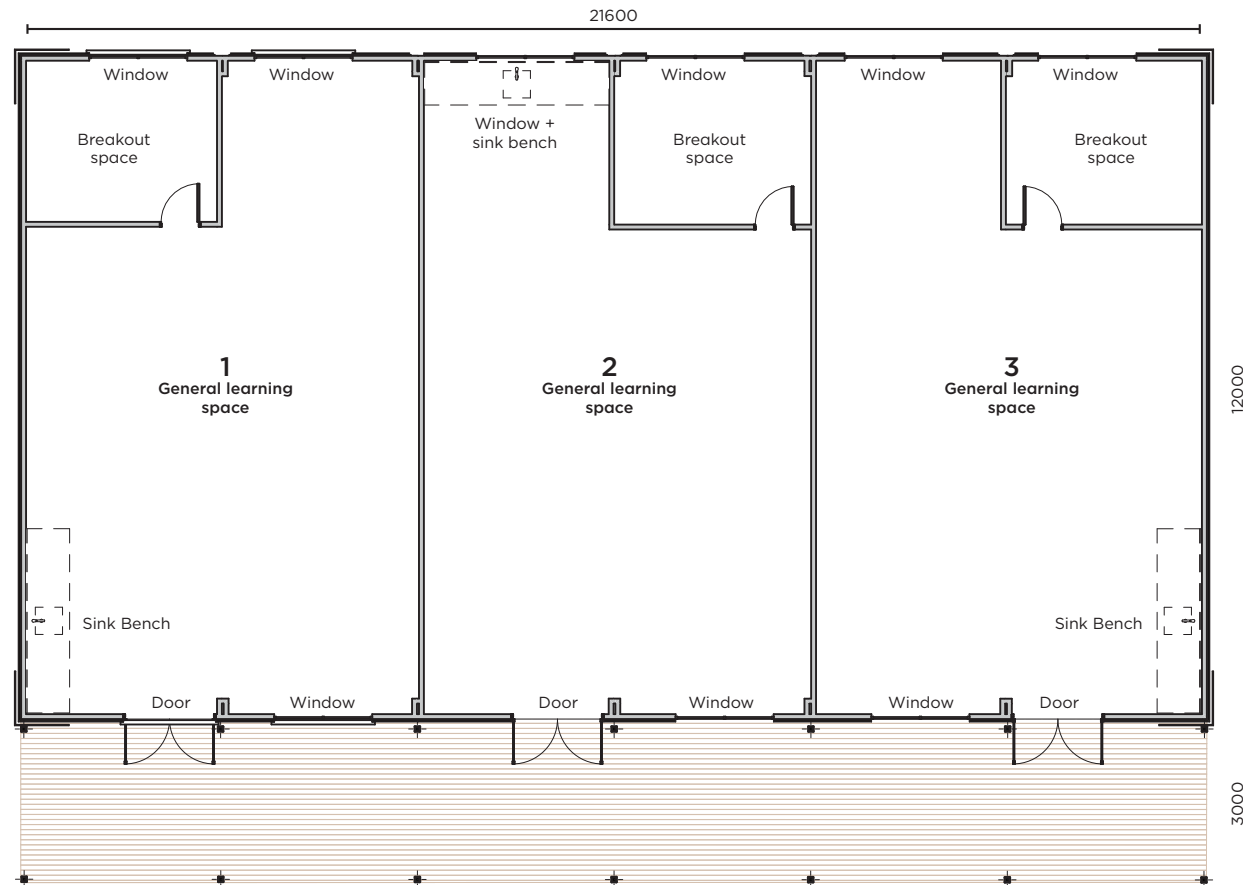
Triple classroom – alternate layout B



**Triple learning space with sink benches**  
268m<sup>2</sup> gross building size + decking. 259m<sup>2</sup> net area.

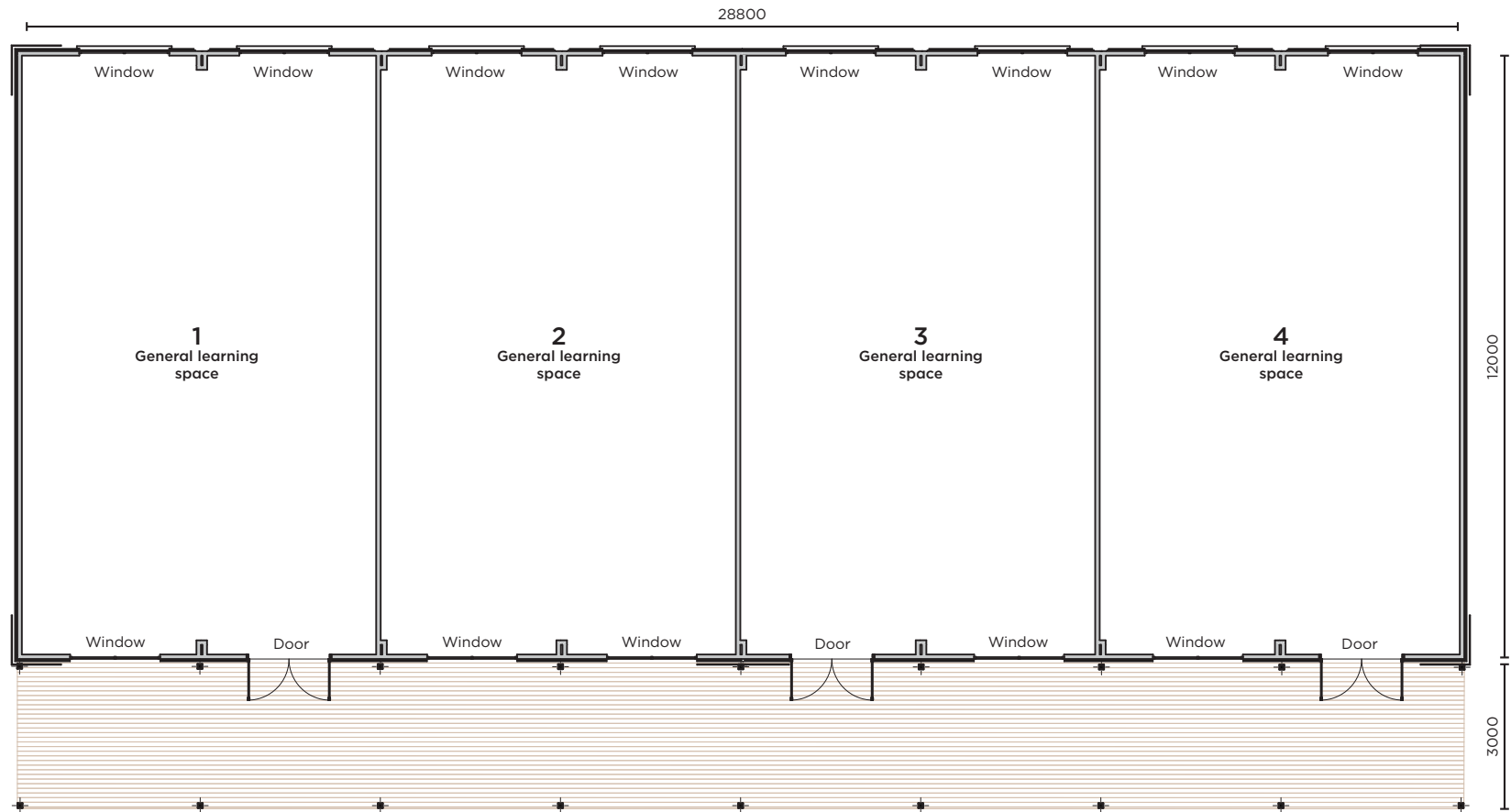


Triple classroom - alternate layout C



**Triple learning space with breakout spaces and sink benches**  
268m<sup>2</sup> gross building size + decking. 259m<sup>2</sup> net area.

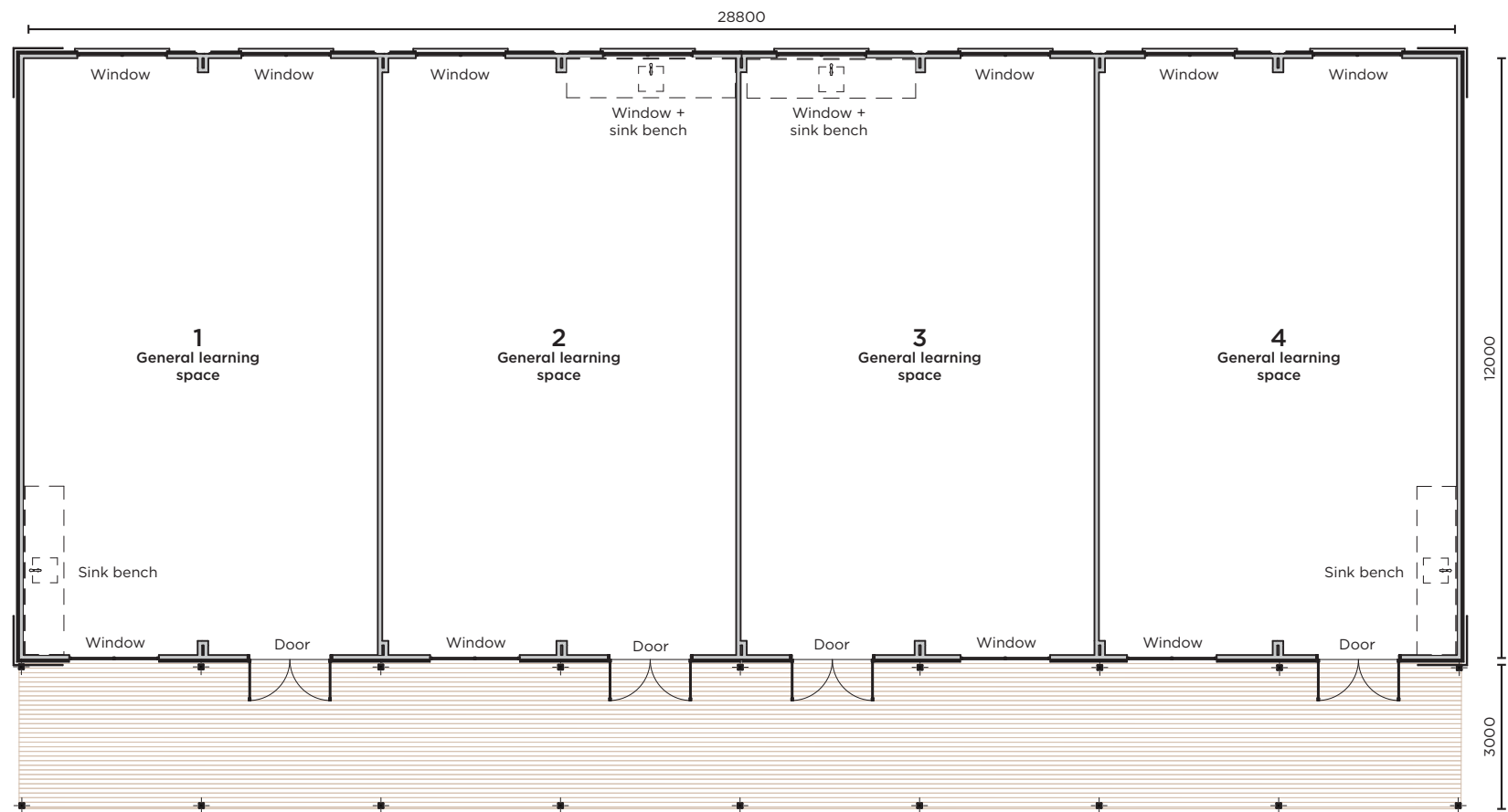
Quad classroom – default layout A



**Quad learning space**

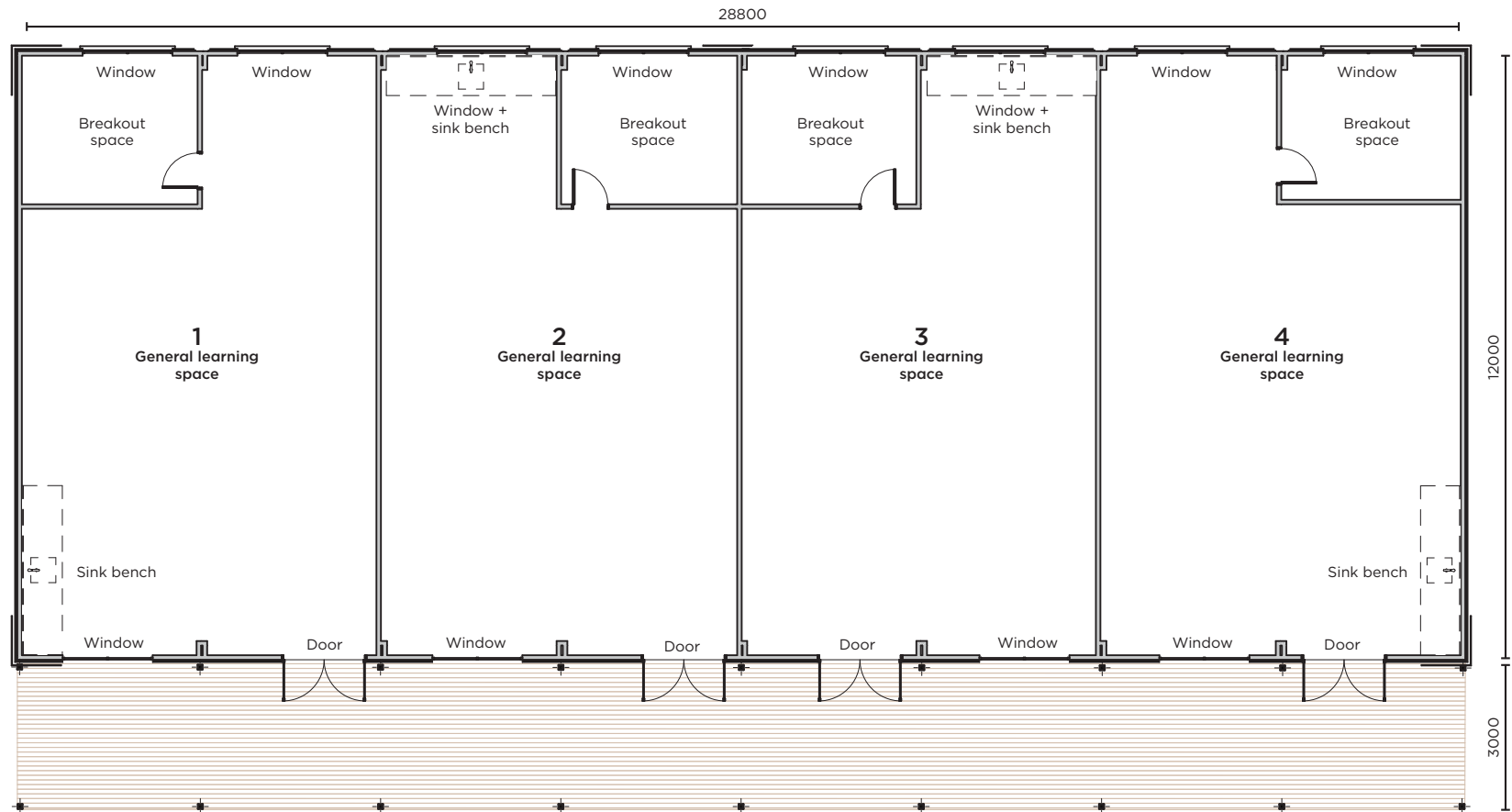
357m<sup>2</sup> gross building size + decking. 345m<sup>2</sup> net area.

Quad classroom - alternate layout B



**Quad learning space with sink benches**  
357m<sup>2</sup> gross building size + decking. 345m<sup>2</sup> net area.

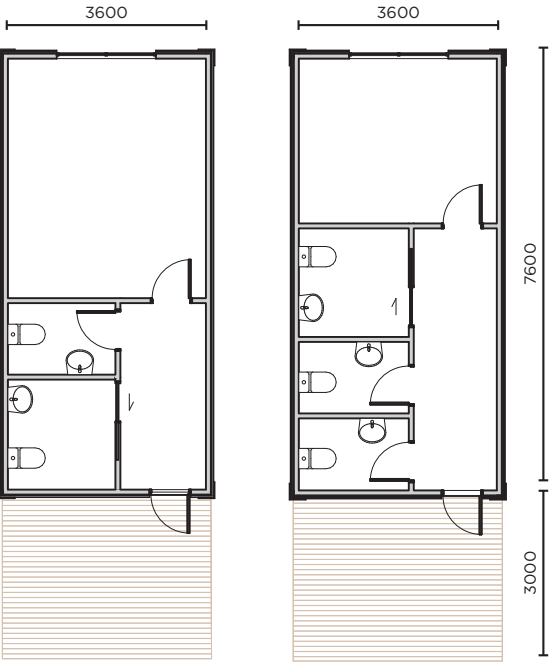
Quad classroom - alternate layout C



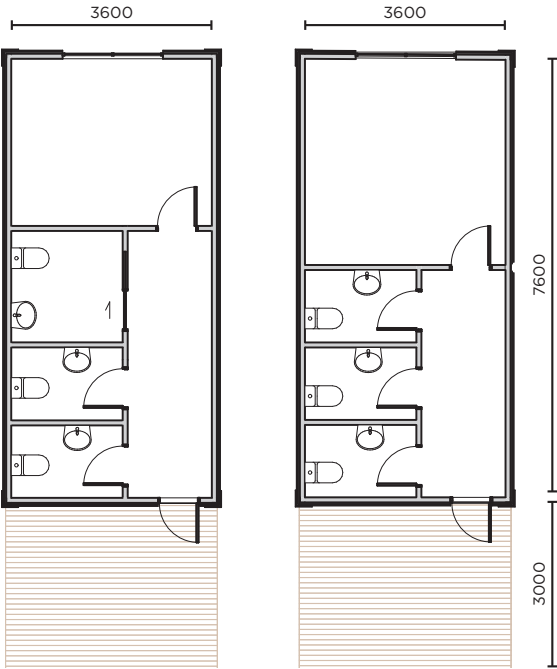
**Quad learning space with sink benches and breakout spaces**  
357m<sup>2</sup> gross building size + decking. 345m<sup>2</sup> net area.

Kōwhhai

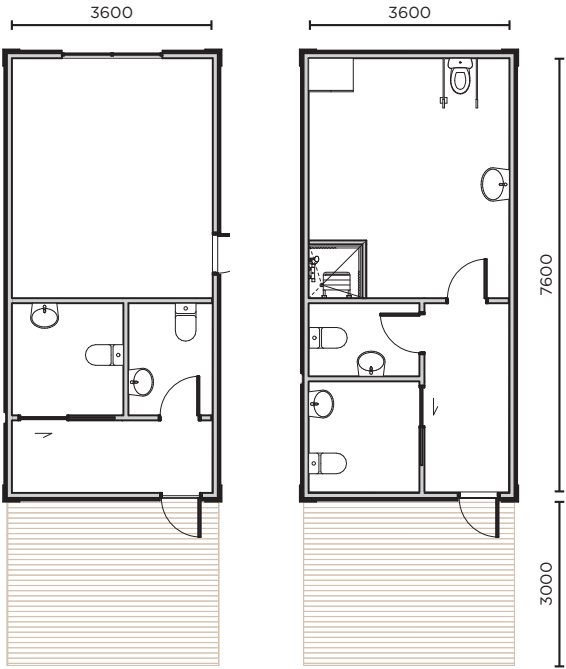
With toilet block and resource storage space



**M1, M2**  
28m<sup>2</sup> gross building size + decking



**M3, M4**  
28m<sup>2</sup> gross building size + decking



**M5, M6**  
28m<sup>2</sup> gross building size + decking

## Customizable options

### Can be changed:

- › Carpet tile colour (from colour guide)
- › Acoustic wall lining colours (from colour guide)
- › Layout
- › Bench top colour
- › Vinyl option for wet areas
- › Dividing wall door styles (e.g. sliding or hinged)

### Cannot be changed:








- › Location of external windows and doors
- › Wall layouts
- › COLOURSTEEL® cladding



### Included (depending on layout):



- › Breakout spaces
- › Storage cupboards
- › Bag hooks
- › Tēpu | bench, or art bench with sink
- › Wharepaku | bathroom








## Colour guide




Kōwhai classrooms are delivered with the below colour scheme. Alternative colour choices may delay delivery.






Default colour scheme	Colour
Carpet tile – main colour For at least 80 percent of floor area	
Carpet tile – accent colour For up to 20 percent of floor area.	
Acoustic wall lining – main colour Use light or mid-grey for 80 percent of space, with brighter colours as location or focus areas only.	
Vinyl – for wet areas	
Benchtops	
Exterior – cladding / roof and joinery	
Exterior – weatherboard	




Carpet tile – main colour options	Colour
Dark grey – Ōnewa (supplier to provide sample)	
Navy blue – Ōrangiuri (supplier to provide sample)	




Acoustic wall lining – main colour options	Colour
Light grey – Kiwitea (supplier to provide sample)	
Mid grey – Kiwikiwi (supplier to provide sample)	







Carpet tile – accent colour options	Colour
Orange – Karaka (supplier to provide sample)	
Yellow/green – Kārikikaho (supplier to provide sample)	
Lime green – Kārikikōwhai (supplier to provide sample)	
Turquoise – Kārikiōrangī (supplier to provide sample)	
Green – Kākāriki (supplier to provide sample)	
Blue – Kahurangi (supplier to provide sample)	
Red – Whero (supplier to provide sample)	

Vinyl – for wet areas – options	Colour
Light grey – Kiwitea (supplier to provide sample)	
Dark grey – Ōnewa (supplier to provide sample)	
Natural – Mangaeka (supplier to provide sample)	

Benchtops options	Colour
Black – Pango (supplier to provide sample)	
Dark grey – Ōnewa (supplier to provide sample)	
Mid grey – Kiwikiwi (supplier to provide sample)	
Light grey – Kiwitea (supplier to provide sample)	
Lightest grey – Hinatea (supplier to provide sample)	

Exterior – cladding / roof options	Colour
Dark grey – Ōnewa	
Mid grey – Kiwikiwi	
Light grey – Kiwitea	

Exterior – aluminium joinery options	Colour
Mid grey – Kiwikiwi	
Light grey – Kiwitea	
White/Cream – Kaho	

Exterior – weatherboard options	Colour
Green – Kākāriki	
Yellow – Kōwhai	
Red – Whero	
Blue – Kahurangi	
Orange – Karaka	
Purple – Waiporoporo	

## Accessibility features



**Wayfinding for vision-impaired learners:** High contrast components for navigation. Light reflectance values of at least 30 percent help make key fixtures, walls, and floors distinguishable for low-vision learners.

**Inclusive navigation:** Luminance contrast between elements such as landscaping, rails, floors, and doors for clear paths throughout the school.

**Floor design:** Patterns and colour schemes selected to avoid confusion with level changes or steps.

**Ramps and wide doorways:** Accessibility enhanced with ramps and wide doorways ensuring ease of access to the building.

## Durability features



**Weather resistance:** Materials are resistant to weather conditions, ensuring the building maintains its integrity through all seasons.

**Warranties:** Design comes with comprehensive warranties, providing peace of mind that the building will remain functional and durable for years to come.

## Additional design features



**Light reflectance and heat absorption:**

- › Materials and finishes manage light and heat effectively.
- › Roof materials have a solar reflectance index of 20–57%, balancing heat absorption and energy efficiency.
- › Internal finishes, blinds, and colours reduce glare and overheating, enhancing comfort and lowering energy use.
- › Light-coloured blinds are recommended for sun-exposed areas to minimise solar gain.

**Blinds:** Light-coloured blinds recommended for areas exposed to direct sunlight, minimising heat gain and improving comfort.

**Colour schemes:** Colouring is learner-centred, creating a sense of place that supports navigation and learning. Neutral colours (80-90%) provide the base and bright colours (10-20%) highlight specific zones and functions, improving focus and reducing distractions.





**Te Tāhuhu o  
te Mātauranga**  
Ministry of Education

## Get in touch

Contact your Project Delivery Manager  
or school's Property Advisor.



**Te Kāwanatanga  
o Aotearoa**  
New Zealand Government

