Exemplar for Internal Achievement Standard
Design and Visual Communication Level 2

This exemplar supports assessment against:

Achievement Standard 91341
Develop a spatial design through graphics practice

An annotated exemplar is an extract of student evidence, with a commentary, to explain key aspects of the standard. It assists teachers to make assessment judgements at the grade boundaries.

New Zealand Qualifications Authority
To support internal assessment

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<table>
<thead>
<tr>
<th>Grade Boundary: Low Excellence</th>
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<tbody>
<tr>
<td>1. For Excellence, the student needs to effectively develop a spatial design through graphics practice. This involves reviewing and refining well-considered design ideas that integrate spatial design knowledge throughout the development. This student has effectively developed a spatial design for a senior common room that demonstrates the integration of design tools, technical knowledge and visual communication techniques (see Explanatory Note 4). An understanding of Minimalism has been integrated throughout the design ideas (1) (2) and (3). Well considered design ideas, i.e. ideas that are linked together effectively, are starting to be evidenced in this portfolio. There is also evidence of the design ideas being reviewed and extended throughout the design process, to move the ideas to a final solution. There is clear evidence of the integration of technical knowledge (4) and visual communication techniques (5) throughout the submission. For a more secure Excellence, the student could strengthen the visual communication skills used in the submission to show the well-considered design ideas required at this level.</td>
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Other student work was submitted but not included in this exemplar
<table>
<thead>
<tr>
<th>Grade Boundary: High Merit</th>
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<td><strong>2.</strong> For Merit, the student needs to clearly develop a spatial design through graphics practice.</td>
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This involves:

- 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.

The student has designed a structure for a senior common room.

This student has reviewed and refined design ideas, incorporating spatial design knowledge, with design judgements on the relevant features of the design. The visual ideas are supported by modelling and the exploration of ideas.

There is clear progression through the development of the design ideas, with a dominant focus on the aesthetic aspects of the design (1).

There is good integration of spatial design knowledge during the layout and design phase, where the decisions made are sound (2).

To reach Excellence, the student could develop the form of the spatial design further, to more clearly show well-considered design ideas. Investigation of functional elements such as materials, interior spaces and flow (3) could also move this sample into the Excellence grade area.

The integration of spatial design knowledge would also need to be strengthened.
HOW TO MAKE BUILDING VISUALLY APPEALING?

DEVELOPMENT

The design of the building has a significant impact on how it looks and feels. It is not only about the aesthetics, but also about the functionality and efficiency of the space.

1. The building's design is influenced by the surrounding environment and the context in which it is located. This includes factors such as the climate, the landscape, and the cultural context.

2. The materials used in the building construction are also important. They should be appropriate for the location and the environment. For example, using local materials can help reduce the environmental impact of building operations.

DEVELOPMENT CONTINUED

The final design should take into account the needs and preferences of the users. This can be achieved through consultation and involvement of the users in the design process.

How will it be placed onsite?

The site plan shows the location of the building within the site. It is important to consider the orientation of the building and its relationship with the surroundings.

Three-dimensional elevations of the building show how it will appear from different angles. This helps to visualize the building in its intended location.

Final interior layout

The interior layout of the building is shown in the floor plans. It includes the placement of fixtures, furniture, and other elements that contribute to the functionality and usability of the space.

This layout should be flexible and adaptable to accommodate future changes and modifications. It is important to consider the needs of the users and the constraints of the site when designing the interior layout.
How will spaces be arranged?

1. This floor plan shows the layout for various environments, including a living area, study, and office.
2. Each space is designed to accommodate the needs of the users, with adequate lighting and ventilation.
3. The study area includes a computer and ample storage for books and documents.

How will structure support building?

1. The structure of the building is supported by a series of beams and columns.
2. The beams are connected by reinforced concrete, ensuring stability and strength.
3. The columns provide additional support, allowing for large open spaces within the building.

Other student work submitted has not been included in this exemplar.
3. For Merit, the student needs to clearly develop a spatial design through graphics practice.

This involves:

- 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.

This student has clearly developed a spatial design for a structure, a senior common room, using graphics practice.

Progression is shown because the idea generation stage has been effectively informed by the initial research. The development of the design ideas shows a process of review and refinement of the ideas (1) (2). The investigation of the form evolves, but tends to move away from the initial inspiration through this process (3).

The site research (4) and the design judgements are incorporated effectively into the layout design. This aspect is moving towards well-considered design ideas, as the links between the ideas are clearly shown.

The student produced evidence of research, an outcome in sketch format, site analysis and placement and other design work (not exemplified here).

For a more secure Merit, the student could expand the depth of the design thinking and linking of design ideas, to move towards well-considered design ideas.

The student could have further integrated the choices of materials and research of structure type etc. into the design ideas, to connect them together in a more logical way.
design development
How could I make my building visually appealing?

The building should be designed to be visually appealing and memorable.

I find a tall, narrow building would be visually striking.

The building should have a unique architectural feature that makes it stand out.

The building should be designed to be functional and efficient.

The building should be designed to be sustainable and environmentally friendly.

design development - floor plan

The floor plan should be designed to be functional and efficient.

The floor plan should have a clear and organized layout.

The floor plan should have a balance of public and private spaces.

The floor plan should have a good flow of natural light and ventilation.

design development - structure

The structure should be designed to be strong and stable.

The structure should be designed to be visually appealing.

The structure should be designed to be functional and efficient.

The structure should be designed to be sustainable and environmentally friendly.

Other Student work submitted has not been included in this exemplar.
4. For Achieved, the student needs to develop a spatial design through graphics practice. This involves:

- exploring and refining design ideas that draw on spatial design knowledge
- making design judgements on the positive and/or negative aspects of aesthetic and functional features of the design in response to the brief.

This student has developed a spatial design for a structure, a senior common room, using graphics practice.

The sketches and models at the start of the process have been used to create divergent ideas, which then flow through to the refinement of the design ideas.

There are valid design judgements given (1), which show the influence of research into sustainable design.

The development of the layout, structure and materials (2) integrates the research into the ideas and this informs the progression of those ideas.

A range of visual communication techniques has been used (see Explanatory Note 4) and these have been incorporated into the design process.

Other work has also been submitted (not exemplified here).

To reach Merit, the student could strengthen the flow of design ideas from the initial exploration stage to the final solution through the refinement process. The range of design judgements could also be strengthened to focus on the more relevant aspects or features of the design and further refine the form.
**SITE PLAN**

1. In this section, the way the building is placed on the site is not ideal. The location of the building causes the morning and afternoon sun to enter. However, if the building were placed on the site, it would be more easily accessed by the students.

2. If the building were placed on the site, it would be more easily accessible by the students. The morning and afternoon sun would be more easily accessed by the students.

3. The way the building is placed on the site is not ideal. The location of the building causes the morning and afternoon sun to enter. However, if the building were placed on the site, it would be more easily accessed by the students.
**Development**

In this concept, I experimented with the shape and form of the building. The design is a long linear structure with large windows that create a sense of openness and connection to the outdoors. The use of glass and geometric shapes gives the building a modern and sleek appearance. The concept was inspired by the idea of creating a building that integrates with its surroundings and provides a sense of tranquility.

**Materials**

- **Glass Beams**: Can be used instead of steel in a building structure. They are durable and strong, making them a popular choice for modern architecture.
- **Glutam Beams**: An innovative material that can be used in place of traditional steel. It is lightweight and cost-effective, making it an appealing option for sustainable design.
- **Concrete**: A sustainable material that is widely used in construction. It is durable, easy to work with, and has a low carbon footprint.

**Scoring**

- **Design**: 3/5
- **Structural Soundness**: 4/5
- **Innovation**: 4/5
- **Sustainability**: 4/5
- **Construction**: 4/5

**Other student work submitted has not been included in this exemplar**
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Senior Common Room Analysis

There is also a deck area not building and at the end of this deck there is a small house, to accommodate the people who would want to stay at this house. This house would have a small kitchen, a small dining area, and a small living area.

The main floor and second floor in built together in one module so the students can be shown up and down the corridor, and four people can be shown together.

There are long windows going to the deck, and there are curtains inside of the room. The curtains are closed. This would help to avoid the sun. The sunlight is too bright for people who don't enjoy the brightness or glare. It's not the place to rest because it's too bright for people who want to relax.

The idea being used in both boxes where the front windows are used in the upper level, and the rear windows are used in the lower level. This idea is also drawn on paper at the corner of the room and made in this way. It shows all the windows in both boxes.

Other student work submitted has not been included in this exemplar.

Diagram:
- "Form Development"
- "Building Site Research on site and surroundings"
Student 8 Page 2: Low Achieved

I designed my layout for the interior of the new house, ensuring flow to accommodate the needs of all users with separate designated social and study areas. I will notice the creation of a floor containing the kitchen, bathroom, and social area at the back, whilst my one bedroom area at the front is isolated. Their are not walls between each division as it allows the street views to have walls for privacy reasons. I have used windows to add visual variety to the bottom floor. I wanted to close one of the kitchen area at the back but thought better of it as I would be cutting out natural light from reaching the kitchen. This is why I put large windows in to gain sunlight that can still stream into the kitchen. I have also put one at the bottom of the stairs to help manage cut down the noise travelling upstairs to the study area. When the door is open, my main reason for using large windows is to create varied/optional for visual variety without cutting areas out completely.

Materials

STEEL FRAMING is a common material used in minimalist buildings. It creates a clean line, direction to which steel material is used to create an opening in the facade. Adding steel framing also requires adding steel sections which, when combined, add a specific line to the texture of the building. The steel frame is also the main structure that holds up the roof and holds the walls together. The walls and all going to be made of glass to enhance the flow of natural light in the environment. It makes sense open, larger than they really are. It also adds a sense of light where sun can flow in from many angle at any time of the day. This glass is easy to maintain as it gets dirty easily and requires frequent cleaning. It’s sometimes worth out its worthiness. The floors of both the bottom and top floor are made of timber which is low maintenance and durable and will fit in visually to the natural, simple, long life, plan. I have left all materials in their natural state as minimalism is about the simplified beauty of design.

Structure Development

I chose to use steel framing to hold up my design because they are strong and reliable for high-stress buildings. It also enhanced the visual environment where glass is also placed between frames. I combined using glass, steel, and metal to create a modern-looking structure. My design is intended for a lot of windows which wouldn’t be functional in a building made of concrete. My design needs lots of light as part of the overall design; this needs to be framed in a grid, creating a rhythmic effect along with the structural design. This helps to support the structural design with minimalism, ensuring the design is as strong and durable as possible. The steel framing is made out of steel as it is the most durable material and will last for a long time. The structural design helps to support the whole building, ensuring it is as strong as possible and will last for a long time.
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<th>Grade Boundary: High Not Achieved</th>
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6. For Achieved, the student needs to develop a spatial design through graphics practice.

This involves:

- exploring and refining design ideas that draw on spatial design knowledge
- making design judgements on the positive and/or negative aspects of aesthetic and functional features of the design in response to the brief.

This student has started to develop a spatial design for a structure, a senior common room, using graphics practice.

The development of the design ideas has been expressed visually. At times the spatial visual communication techniques have been used well to communicate the development of the ideas, e.g. the structure investigation (1).

Other work has also been submitted (not exemplified).

To reach Achieved, the student could apply the visual communication techniques more consistently across the whole submission.

The design judgements (2) should be strengthened to better cover the positive and/or negative aspects of the aesthetic and functional features of the design. An example (3) of the depth of design judgement required should be more consistently evident across the submission.

The links between the space and its scale (4) should be strengthened, to show how the student has investigated the size and arrived at its final proportions.
Space Investigation

Structure Investigation

Floorplan Investigation

Other student work submitted has not been included in this exemplar.