

PICTON HIGH SCHOOL

Creating Opportunities Achieving Success



Year 11 Numeracy Assessment Task 2 2024

Due Date: Term 2 Week 8 Digital Submission on CANVAS (9:00am Wednesday 19 th June)	Assessment Name: Research Task Renovate Redecorate
Mark: Graded	Weighting: 35%

Task number: 2

Timing: Term 2, Weeks 6–8

Outcomes assessed

- N6-1.1:** recognises and applies functional numeracy concepts in practical situations, including personal and community, workplace and employment, and education and training contexts
- N6-1.2:** applies numerical reasoning and mathematical thinking to clarify, efficiently solve and communicate solutions to problems
- N6-2.1:** chooses and applies appropriate operations with whole numbers, familiar fractions and decimals, percentages, rates and ratios to analyse and solve everyday problems
- N6-2.2:** chooses and applies efficient strategies to analyse and solve everyday problems involving metric relationships, distance and length, area, volume, time, mass, capacity and temperature
- N6-3.1:** chooses and uses appropriate technology to access, organise and interpret information in a range of practical personal and community, workplace and employment, and education and training contexts

Nature of the task

In this task you will renovate and redecorate a bedroom. You can choose to renovate your own bedroom, a friend's bedroom or a fictional bedroom.

There are four parts to the task. Answer all questions in each part.

- Select and use ICT where appropriate.
- Show all of your calculations.
- Include references to any websites used.
- Submit your work as either a hard copy or as a digital file.

Approximately two hours of independent preparation in addition to class time will be required to develop a response.

Assessment criteria

The assessment of your response to this task will be based on:

- the accuracy and relevance of your calculations
- the application of numeracy knowledge and skills to this task
- your numerical reasoning and mathematical thinking (NRMT)
- your use of technology to investigate and solve problems.

Renovate, redecorate.

Your challenge is to renovate and redecorate a bedroom. The bedroom can be your existing bedroom, a friend's bedroom or a fictional bedroom.

Part A: Planning

Who is going to be using this bedroom? Give details about the age and interests of the person. These details may be important in your selection of paint colours for the walls, the type of flooring you will use, the furniture you choose and any furnishings.

Part B: Research, measurement and calculations

There are three essential elements of this renovation:

- The walls of the room must be repainted with at least 2 coats of paint.
 - The flooring must be replaced.
 - The room must include: a new bed, chest of drawers, desk and a chair.
1. Create a rough sketch of the room, including all dimensions, to help with your calculations. Include the dimensions of the door and any windows.
 2. For the paint:
 - a. Choose the brand, type, colour and supplier of the paint. Provide details for your choice or choices (if more than one).
 - b. Find the area of the surfaces that need to be painted.
 - c. Estimate how many litres of paint you will need, providing details and working out for your estimation. Calculations could be based on the paint coverage in m²/L of your chosen paint or you could use an online paint calculator (<https://www.bunnings.com.au/diy-advice/planners-and-calculators/paint-calculator>).
 - d. Calculate how much the paint will cost.
 3. For the flooring:
 - a. Calculate the floor area.
 - b. Choose the brand, type, colour and supplier of the flooring, providing details for your choice.
 - c. Calculate how much the flooring will cost.
 4. Research and decide on each item of furniture. Determine their cost and the supplier, providing details for your choice.
 5. Create a floor plan of the room to scale. This can be done by hand or using technology, such as an online tool.
 - a. Include the length and width of the room on your diagram, as well as the ceiling height. Identify the position of the door and any windows.
 - b. Include the furniture items on your scale diagram, keeping to the scale. Label the lengths and widths.

Part C: Furnishings and design

Personalise the bedroom. This can be achieved by adding decorative items and should include items such as wall art, posters, a bedside light, mirror and bed linen. Provide images of the items that you have chosen.

Part D: Conclusion

Write two paragraphs explaining what you have learnt about renovating and redecorating a room based on the research you did for this task. Describe how this might help you in the future. You may include things that you would need to consider if you were to renovate and redecorate a room for real.

End of assessment task

Note:

You can use online tools to help with your calculations, if you do so make sure you provide evidence. However, to show an Aspiring outcome or an A grade you will need to show full working out of how these tools are able to do the calculations. Including any working out you have done throughout your assignment.

Grading guidelines

Outcome	Aspiring	Achieving	Emerging
N6-1.1: recognises and applies functional numeracy concepts in practical situations, including personal and community, workplace and employment, and education and training contexts	The response demonstrates a comprehensive recognition of numeracy concepts applied correctly to this renovation activity.	The response demonstrates a sound recognition of numeracy concepts being applied to this renovation activity.	The response demonstrates some recognition of numeracy concepts and their application to this renovation activity.
N6-1.2: applies numerical reasoning and mathematical thinking to clarify, efficiently solve and communicate solutions to problems	The NRMT process has been applied confidently. Explanations are justified with accurate calculations and the conclusion is detailed and thorough.	The NRMT process has been applied appropriately. Explanations are supported by appropriate calculations. There is evidence of consideration and reflection in the conclusion.	Aspects of the NRMT process have been applied. Results are described and include some calculations. There is evidence of a conclusion.
N6-2.1: chooses and applies appropriate operations with whole numbers, familiar fractions and decimals, percentages, rates and ratios to analyse and solve everyday problems	The response indicates a thorough understanding of operations with whole numbers and decimals. A comprehensive understanding of ratio is demonstrated. The floor plan is accurate and contains all required features.	The response indicates a satisfactory understanding of operations with whole numbers and decimals. The floor plan is accurate.	The response indicates a limited understanding of operations with whole numbers and decimals. Some understanding of ratio is demonstrated in the floor plan.

Outcome	Aspiring	Achieving	Emerging
<p>N6-2.2: chooses and applies efficient strategies to analyse and solve everyday problems involving metric relationships, distance and length, area, volume, time, mass, capacity and temperature</p>	<p>The response demonstrates measurement calculations which are accurate, relevant and display attention to detail.</p>	<p>The response demonstrates appropriate measurement calculations.</p>	<p>The response demonstrates the use of some relevant measurement calculations.</p>
<p>N6-3.1: chooses and uses appropriate technology to access, organise and interpret information in a range of practical personal and community, workplace and employment, and education and training contexts</p>	<p>There is evidence that the student has made effective use of technology.</p>	<p>There is evidence that the student has made sound use of technology.</p>	<p>There is evidence that the student has made some use of technology.</p>