

MANILLA CENTRAL SCHOOL - ASSESSMENT TASK NOTIFICATION 2022

STAGE 4 MATHEMATICS R.Felstead

Task Number: 3

Notification Date: Friday 02/09/2022, Week 7 Term 3 2022

Weight: 25%

Due Date: Friday 16/09/2022, by 3.20pm Week 9 Term 3 2022



Outdoor Planning Project

OUTCOMES ASSESSED

MA4-1WM communicates and connects mathematical ideas using appropriate terminology, diagrams and symbols

MA4-2WM applies appropriate mathematical techniques to solve problems

MA4-3WM recognises and explains mathematical relationships using reasoning

MA4-12MG calculates the perimeters of plane shapes and the circumferences of circles

MA4-13MG uses formulas to calculate the areas of quadrilaterals and circles, and converts between units of area

MA4-14MG uses formulas to calculate the volumes of prisms and cylinders, and converts between units of volume

TASK DESCRIPTION

Gardening at home:

This task will cover two aspects of garden design – paving areas and purchasing a water tank.

Mrs Brown has decided to pave Path 1 and the BBQ area as well as buy a water tank for her yard. She has made a scaled plan of her property as shown at the start of the assessment task.

TASK INSTRUCTIONS

- Students are to complete this assignment **independently**; it is an assessment of their **own** understanding.
- Some class time will be allocated but students are expected to spend some time at home working on their assignment.
- Students are encouraged to attempt all questions to the best of their ability.
- Students are to submit a hard copy of their task **to their class teacher by 3:20pm on Friday 16/09/2022.**

MARKING CRITERIA

- See the marking guidelines attached to the assessment task

Task Total		Task Rank		Accumulative Rank	
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Teacher's signature: _____

R Felstead

Head Teacher's signature: _____

A Nott

Deputy Principal's signature: _____

A Lawrence

MARKING GUIDELINES

	0 marks	1 mark	2 marks	3 marks
Number of pavers - rectangles and squares	No answers.	Able to complete the pattern for either rectangle or squares using block method for numbers up to 5	Able to complete the pattern for either rectangle or squares using block method for numbers up to 20	Able to complete the pattern for rectangle AND squares using block method for numbers up to 20
Number of pavers – method without using blocks	No answers.	Able to say how to find the number of pavers without diagrams for either length of path OR side length of square area	Able to say how to find the number of pavers without diagrams for either length of path AND side length of square area	
Can accurately use the scale	Not attempted or incorrect conversions	Scale conversions are correct		
Length measurements	Not attempted or incorrect measurements	Correctly measures two or three measurements	Correctly measures all measurements	
Perimeter	Not attempted	Attempts to determine perimeter for rectangle or square	Correctly calculates perimeter for rectangle OR square	Correctly calculates perimeter for rectangle AND square
Area	Not attempted	Attempts to determine area for rectangle or square	Correctly calculates area for rectangle OR square	Correctly calculates area for rectangle AND square
Paver calculations for Path 1 and BBQ	Not attempted	Attempts to determine the number of pavers for rectangle or square	Correctly calculates the number of pavers for rectangle OR square	Correctly calculates the number of pavers for rectangle AND square
Water Tanks – area of base	Not attempted	Attempts to calculate the area of the base of the water tanks	Correctly calculates the area for two of the water tanks	Correctly calculates the area for all three the water tanks
Water Tanks - formula	Not attempted	Writes the formula for volume of a cylinder OR rectangular prism	Writes the formula for volume of a cylinder AND rectangular prism	
Water Tanks – volume	Not attempted	Attempts to calculate the volume of the water tanks	Correctly calculates the volumes for two of the water tanks	Correctly calculates the volumes for all three the water tanks
Tank recommendation	Not attempted	Makes a tank recommendation	Makes a tank recommendation and provides reasoning	Makes a tank recommendation and provides reasoning with the use of calculations
Paver calculations for base	Not attempted	Attempts to calculate the number of pavers required	Calculates the number of pavers required with several errors	Correctly calculates the number of pavers required for the tank
Tank placement	Not attempted	Attempts to draw scale diagram on yard	Attempts to draw scale diagram on yard with explanation of positioning	Draws scale diagram on yard with explanation of positioning

	Total	Max. mark 34
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