

Christmas Enchanted Village Project

Due date: December 12th

In school time provided:

Tuesday November 27th 1:00 – 1:40

Wednesday November 28th 1:40 – 2:20

Thursday November 29th 8:30 – 9:15

Monday December 3rd 8:40 – 9:20

Tuesday December 4th 12:50 – 1:40

Thursday December 6th 8:30 – 9:15

Tuesday December 11th 1:00 – 1:40

 Structure

Create a house (or other building in a village) to meet the following criteria;

* The **volume** of the structure (excluding the roof) measures somewhere between 20,000cm³ and 50,000cm³
* The main structure is a rectangular prism, constructed from a strong plain paper bag or similar materials.
* The structure is aesthetically and/or creatively decorated
* Minimum requirements: main front door and two front windows
* Roof: front and back, sides not required (but may include). Roof can be any shape that you are confident working with: for example; triangular or rectangular or any quadrilateral shape including trapezoid.
* At least one additional feature (extra window, chimney, window box, porch etc.) is included
* Attach the following page to a side of the house

My Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ My Structure \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Calculations

|  |  |  |
| --- | --- | --- |
| Dimensions of rectangular prism | Length = \_\_\_\_\_\_\_\_Width = \_\_\_\_\_\_\_\_Height = \_\_\_\_\_\_\_\_  | Total volume =  |
| The area of the roof (front and back only) | Area =  | My work: |
| The cost of a new roof (front and back only) at $0.20 per square cm | Cost of new roof = | My work: |
| Walking around my structure, I calculate the perimeter to =  | Perimeter =  | My work: |
| The front of your building needs to be painted in the Spring.  | Calculate the surface area excluding windows and doors as: \_\_\_\_\_\_\_\_\_\_\_\_cm² | Calculate the cost of the paint project if the painter is charging 25c per cm² |
| I added the following improvement to my structure: \_\_\_\_\_\_\_\_\_\_\_\_\_ | The dimensions are: | Calculate the volume (if 3 dimensional) or area (if 2 dimensional) of your addition |