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## nees@(O)berkeley How to Calculate Volume

One important aspect of your structure is how much useable space it has. Volume is a measure of how much space your building contains. There are two main shapes that a building can have, the rectangular prism and the pyramid. Do not worry if your building does not form a pyramid, because they are not required (but could be useful for increasing your building volume). Below are some examples of how you can calculate your building volume.


Pyramid


| Rectangular Prism Volume <br> Volume $=$ Length x Height x Width <br> Example: $\begin{aligned} \text { Volume } & =(3 \mathrm{in} .) \times(5 \mathrm{in} .) \times(2 \mathrm{in} .) \\ & =30 \mathrm{in} . \end{aligned}$ |  |  |
| :---: | :---: | :---: |
| Pyramid Volume <br> Volume $=1 / 3 \times$ Length $\times$ Width $\times$ Height <br> Example: $\begin{aligned} \text { Volume } & =(1 / 3) \times(3 \text { in. }) \times(2 \text { in. }) \times(1 \mathrm{in} .) \\ & =2 \text { in. }{ }^{3} \end{aligned}$ |  |  |
| Triangular Prism Volume <br> Volume $=1 / 2 \times$ Length $\times$ Width $\times$ Height <br> Example: $\begin{aligned} \text { Volume } & =(1 / 2) \times(6 \text { in. }) \times(3 \text { in. }) \times(1 \text { in. }) \\ & =9 \text { in. }{ }^{3} \end{aligned}$ |  |  |

