

Quick Sketch Up Tutorial for designing shed like structures

“If one doesn't exist, perhaps in your copious spare time you could think about doing a tutorial :)”
--Chris

I put together this little tutorial to help others get to know Google Sketch Up © . I don't intend to infringe on any copy rights or take credit for any work other than taking screen shots here and using them in this document. Thank you to the Google Company for the free product they provide. If I had a need for the professional version, I would jump to buy it.

I repetitively use the same basic features in Sketch Up, but I use them in a manner to make a professional looking end result. Before installing and getting started using the program, I absolutely suggest you get your head set on a few things.

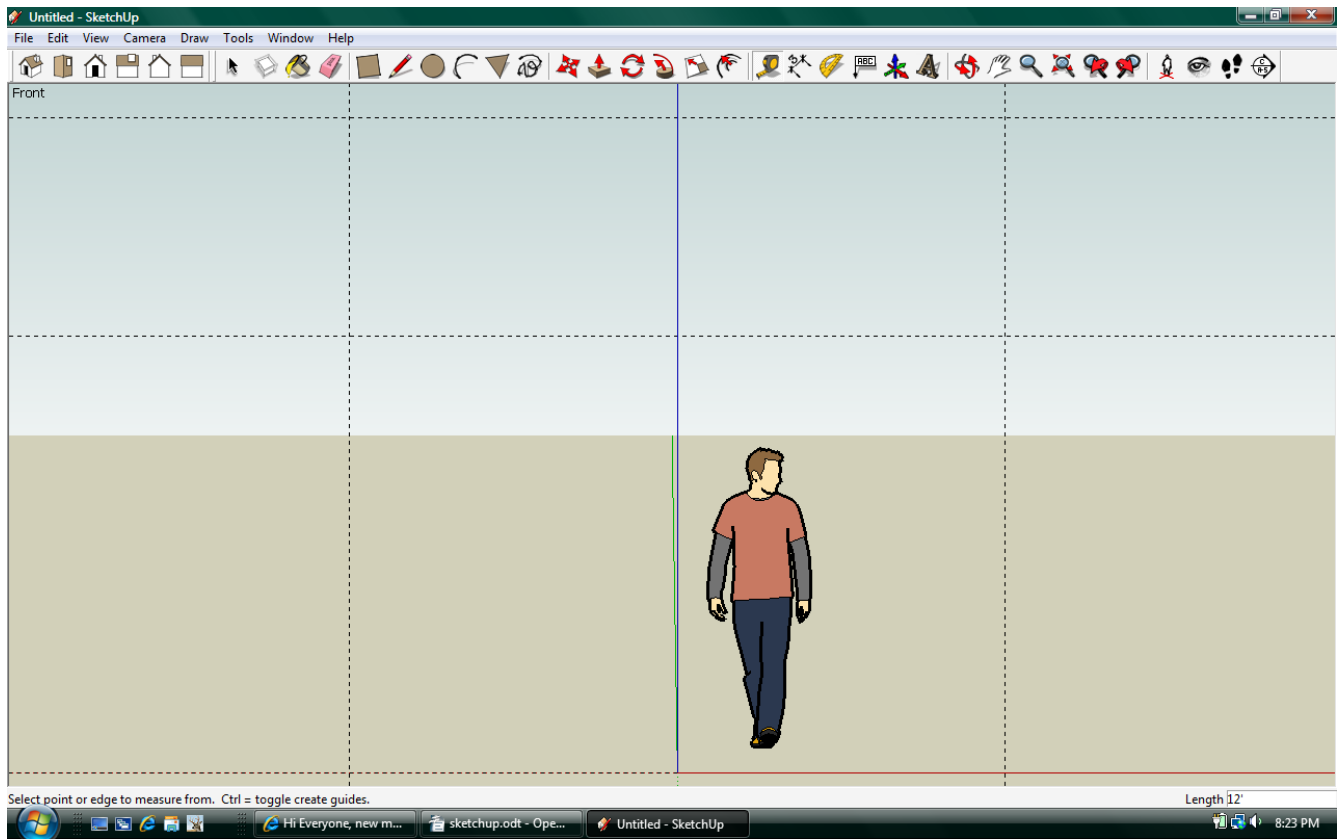
1. This software/tool is limited by the end user knowledge.
2. This software will not engineer a design for you, you must find the correct engineering specifications elsewhere.
3. This will not teach you design, just aide in creating a 3d view of your design.

Get ready to use Sketch Up. Here is my list of “How-To” and what to learn to create a better end result.

1. Learn to make grids using the tape measure tool. Architectural designs rarely call for anything other than symmetrical sizes or exact measurement.
2. Learn to use dimensional measurements so that you can see your measurements.
3. Learn to create a surface that represents the end result.
4. Learn to create subsurfaces (not one beneath the other, but a surface within a surface).
5. Learn to extrude surfaces to create additional walls, sub-flooring, and roofs with minimal effort.
6. Paint the model to looks like something you want.

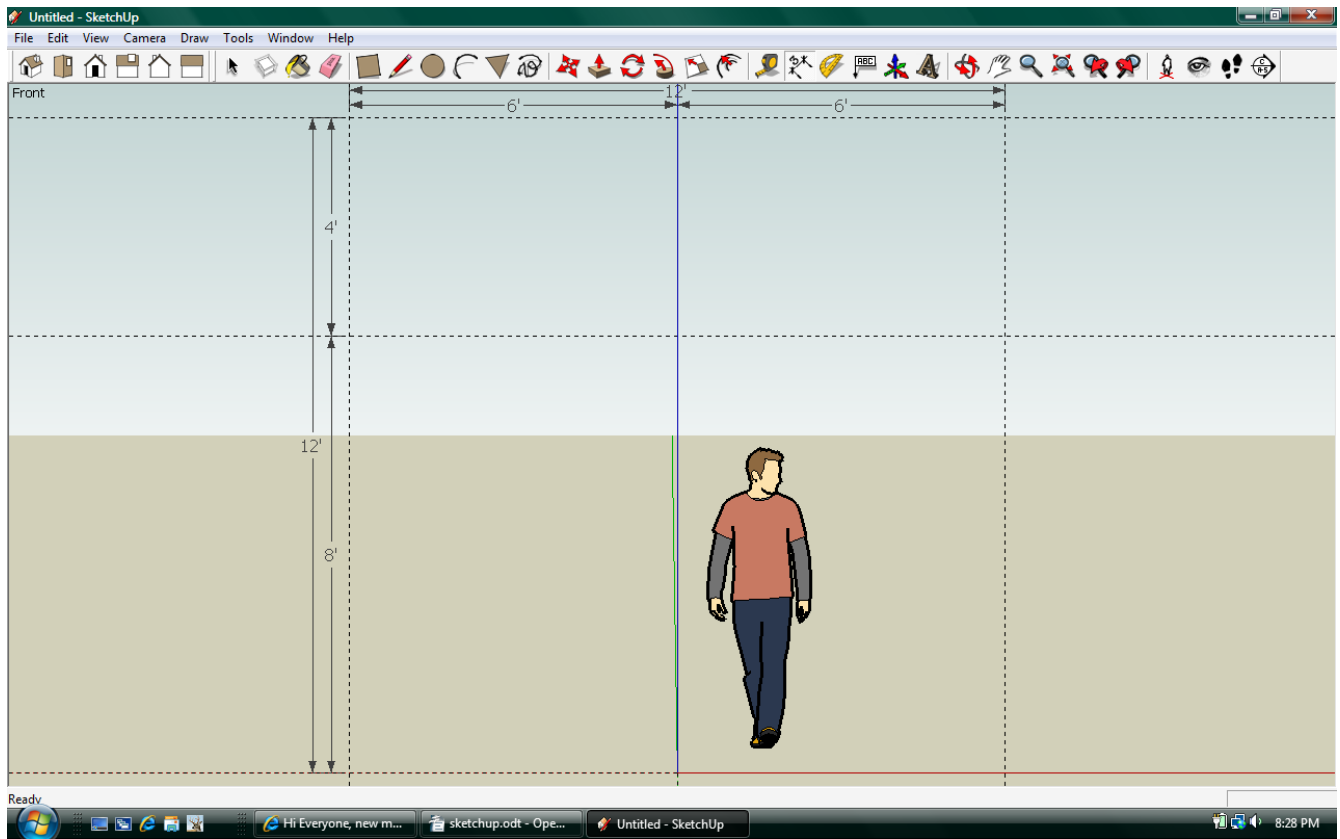
In this tutorial, I will walk you through making a simple model of a shed that any person could build using store bought dimensional lumber. In this shed I want a standard door and matching window. Start simple and work our way through.

Learn to make grids using the tape measure tool.



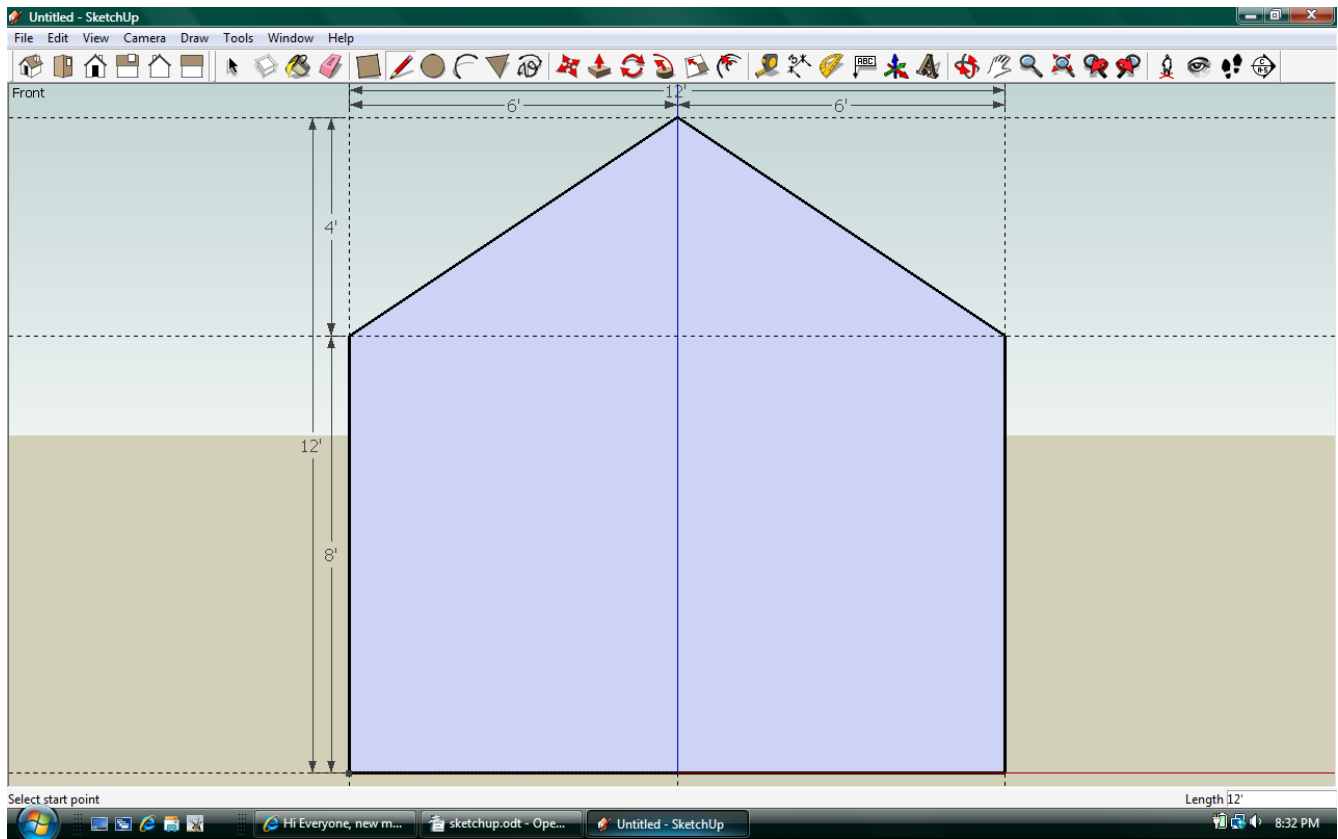
Use the tape measure tool to create a base line (double click the red line using the tape measure). Measure vertically 8 feet. Measure up again another 4 feet (12 foot to roof apex). Measure horizontally 6 feet to the left and 6 to the right (creating a 12 by 12 foot box). This will allow you to create a wall in a single plane surface (which can be complicated when working in 3D). This will be the basis for the rest of your work.

Learn to use dimensional measurements so that you can see your measurements.



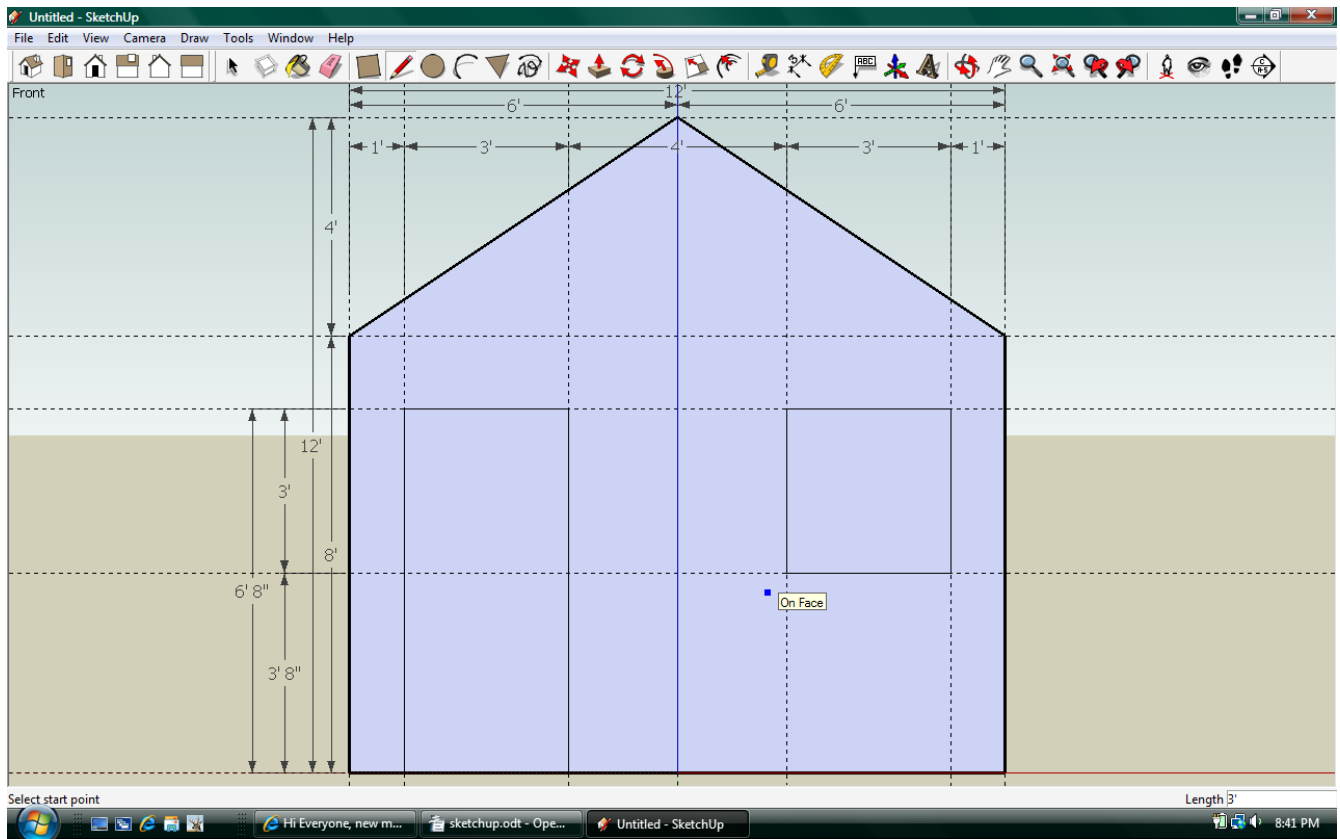
Mark your dimensional lines showing a wall height of 8 feet. The roof apex to top of wall height is 4 feet. The overall width of 12 feet. The center of 6 feet. Now that you have a “grid” of measurements and “intersections”(where the dotted lines cross), you can begin doing the viewable portion of the work.

Learn to create a surface that represents the end result.



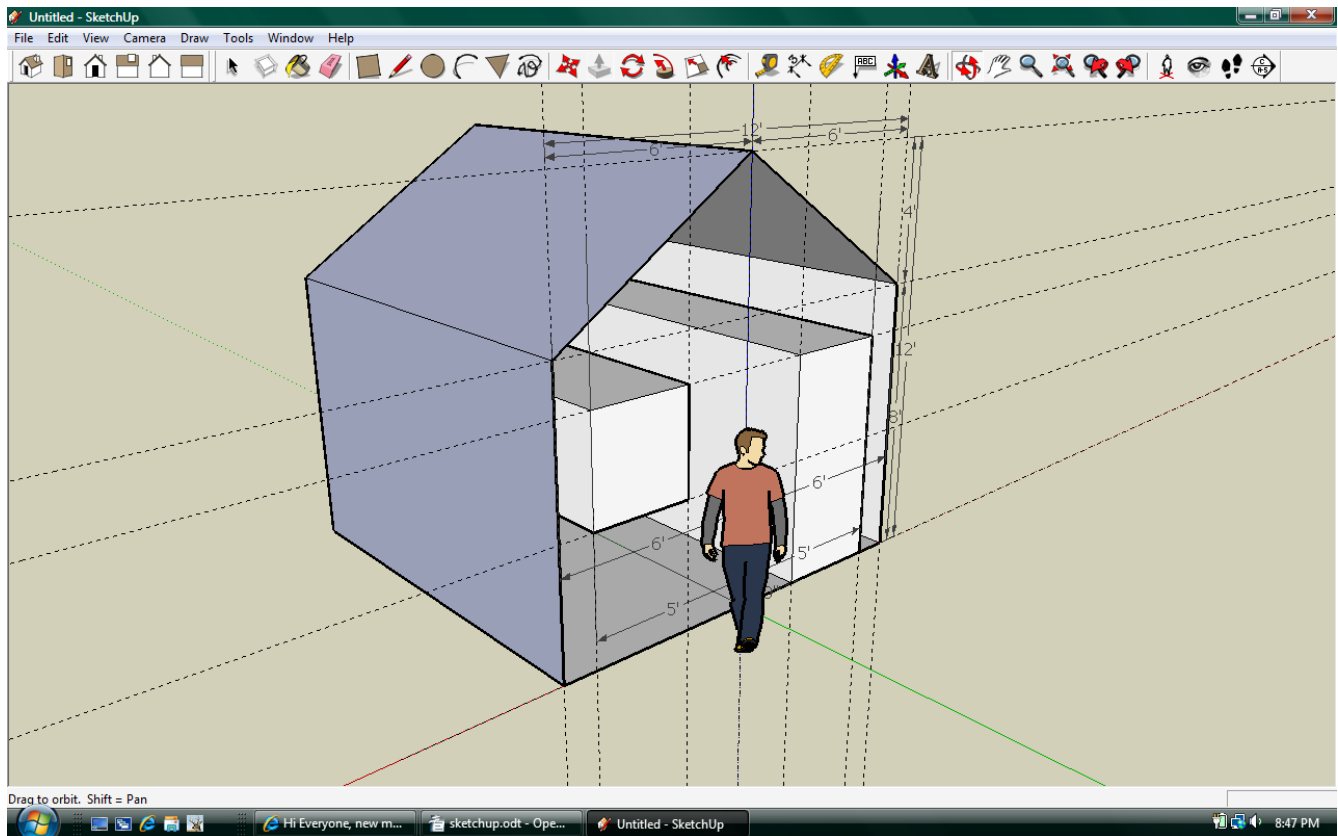
Using the pencil tool, click at the bottom left corner to begin the wall. Then click at the top of the wall on the left side, the roof apex at the center, the top of the wall on the right. The bottom right corner of the wall, and then the lower left corner again. This will create a surface like the one pictured. At this point, we add another horizontal grid line at 6 feet 8 inches which will be the top of the door and window. Then we will add 2 sets of vertical grid lines to mark the boundaries for our door and window. Also add in the dimensional lines to know how wide they are.

Learn to create subsurfaces (not one beneath the other, but a surface within a surface).

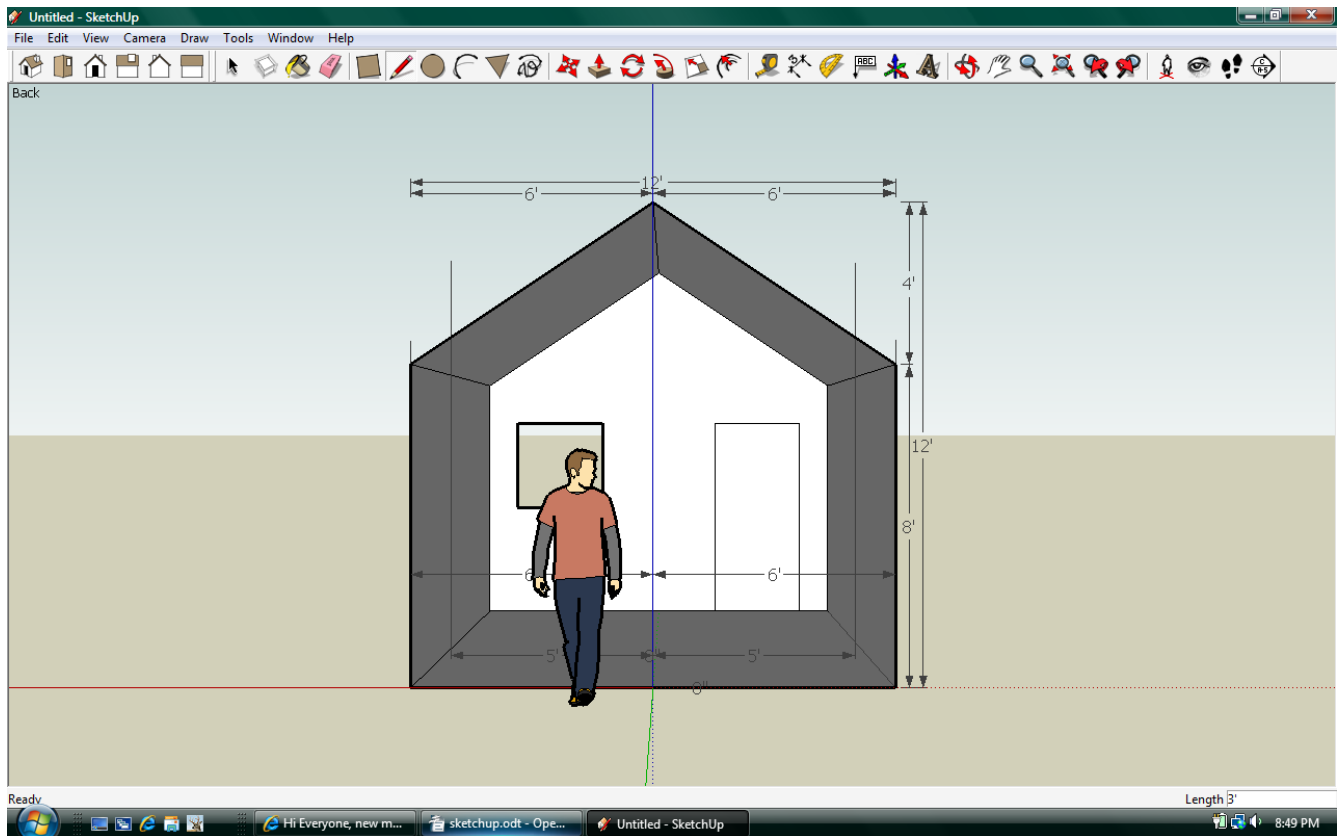


All we do to create the surface within the surface is use the pencil tool to mark all four points. In the case of the door we only had to mark 3 points. Now you have 2 sub surfaces. If you extract this at this point you will end up with a whole bunch of surfaces. We'll do it anyway to see how to correct the problems it creates.

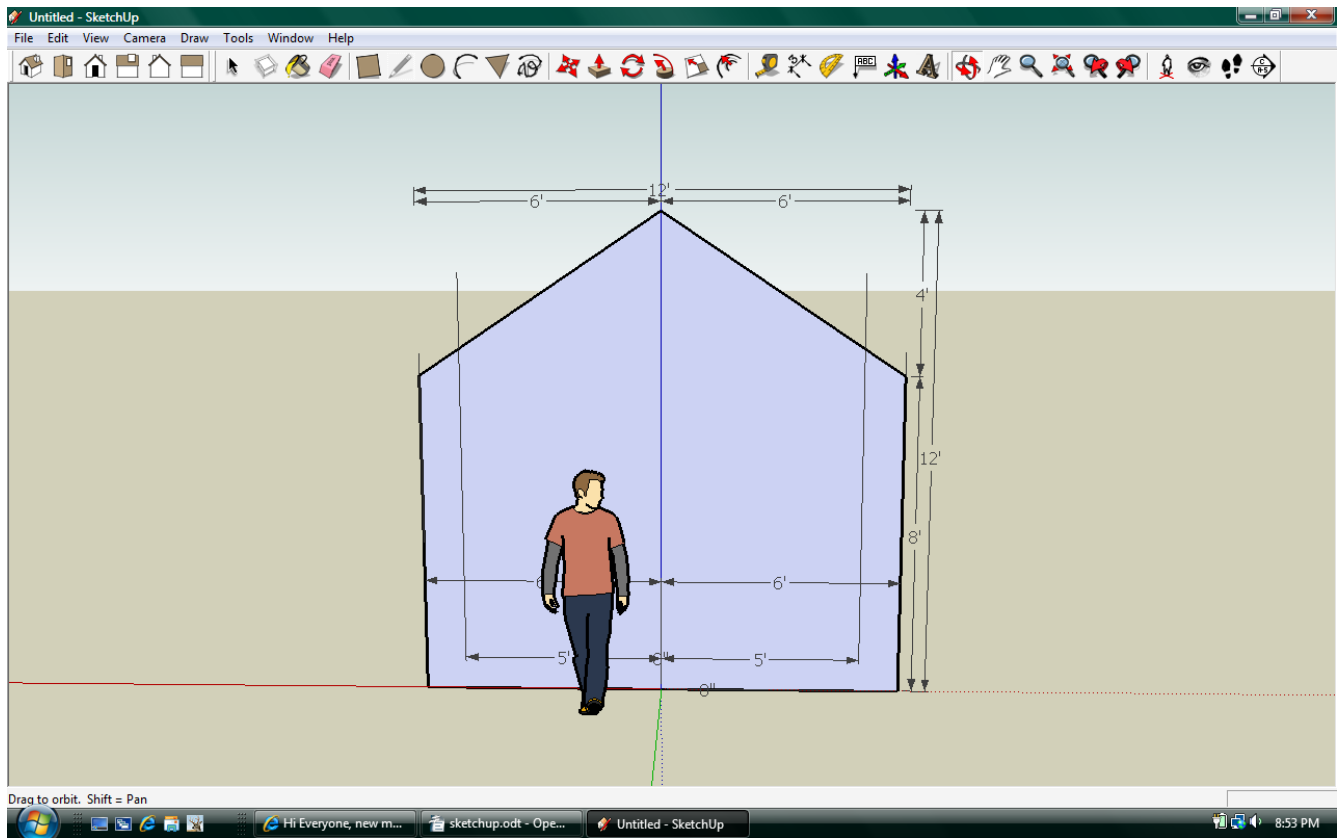
Learn to extrude surfaces to create additional walls, sub-flooring, and roofs with minimal effort.



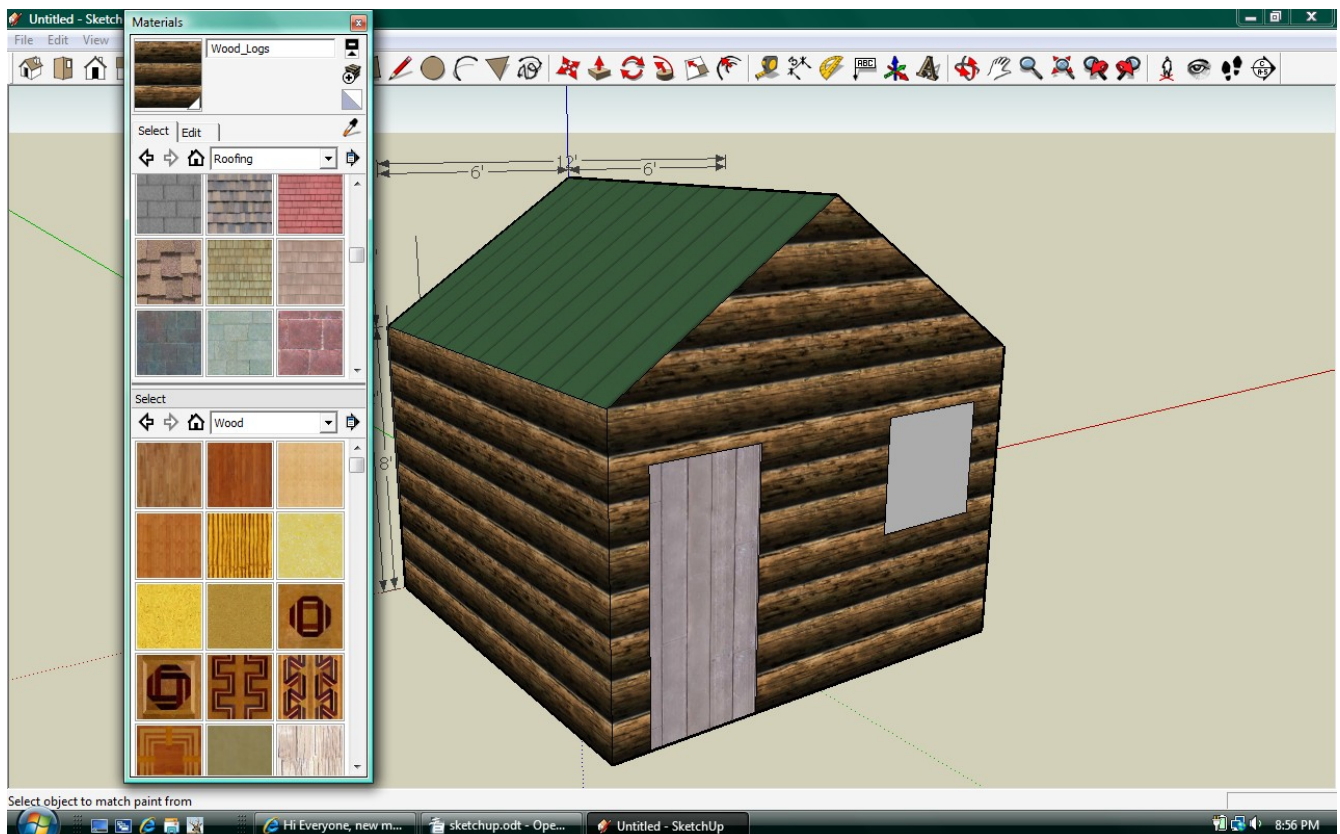
After extruding it forward 12 feet using the push/pull tool, this is what the backside looks like. Click on the view menu, and uncheck guides. This will allow you to delete some unneeded lines.



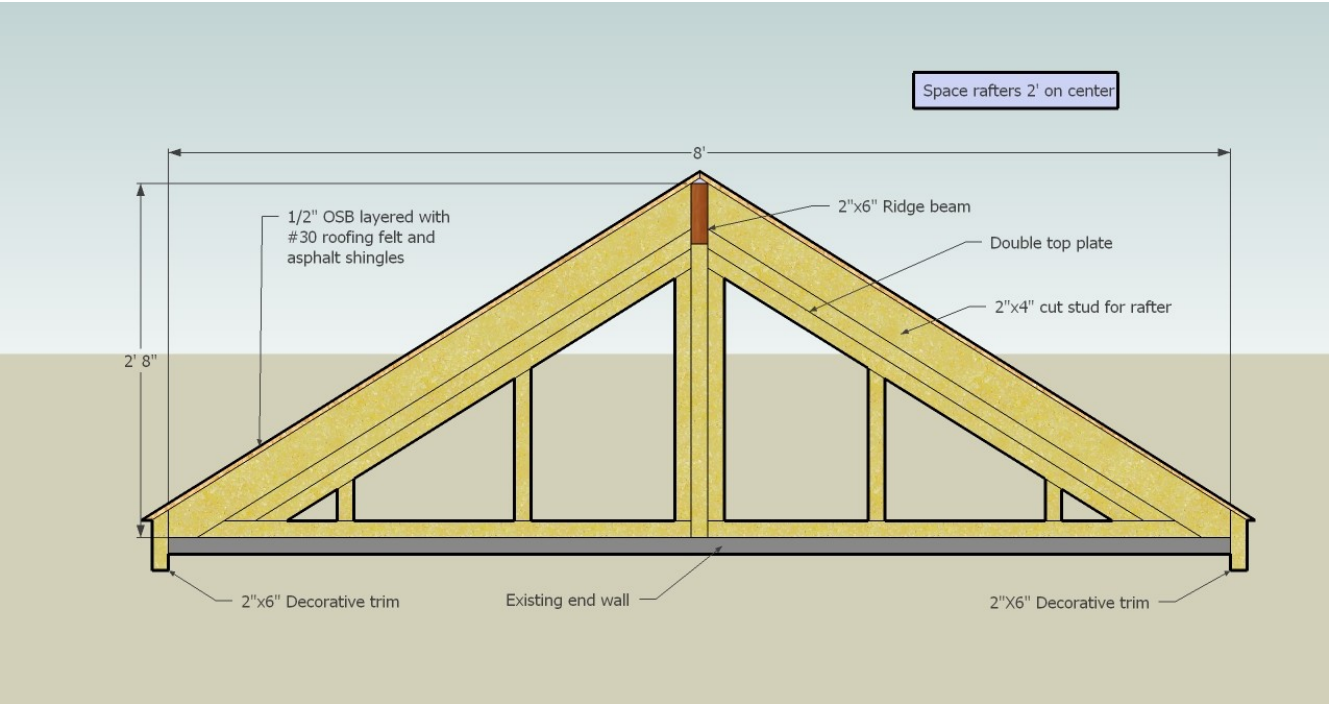
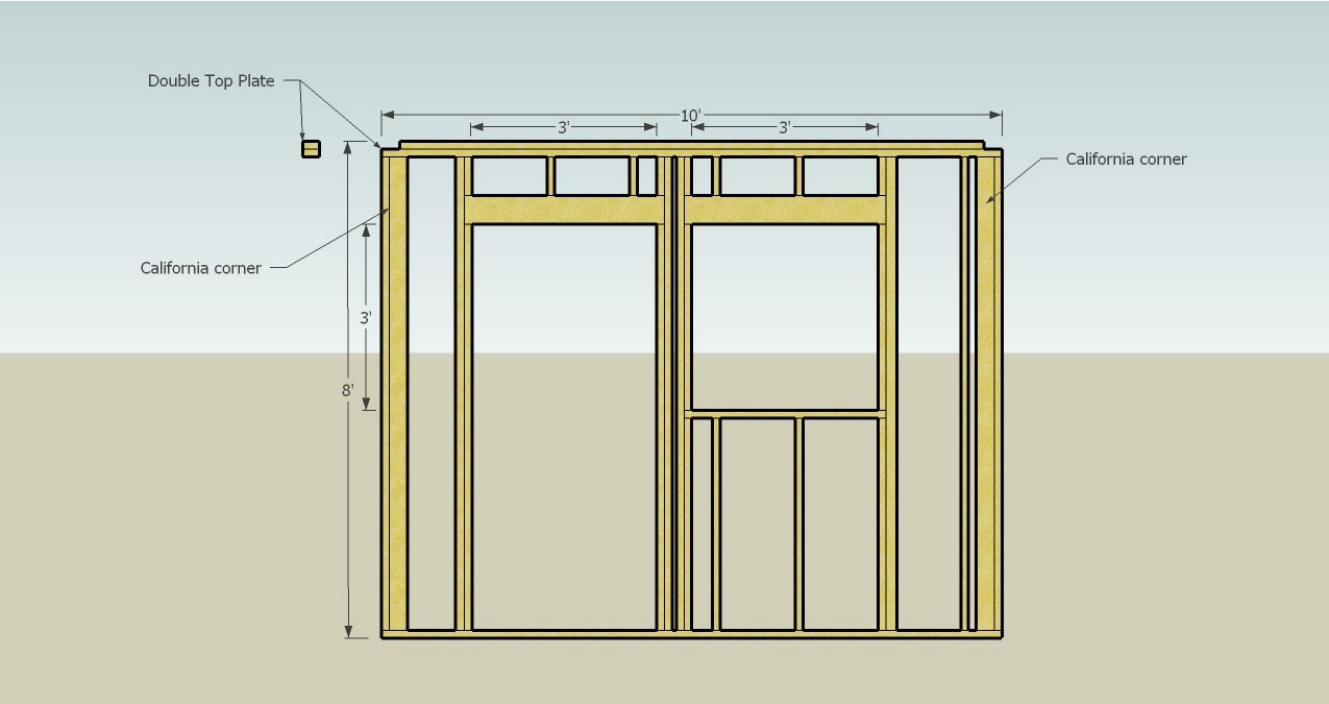
After you delete all the extra lines from the window and doors after they are pushed/pulled, use the pencil tool to draw the line across the bottom of the door. This one line will complete the surface for the door and the floor. Use the line tool again to draw from one corner of the window to the next to make the window a solid surface. And do the same for the opening across the back to give us a back wall.

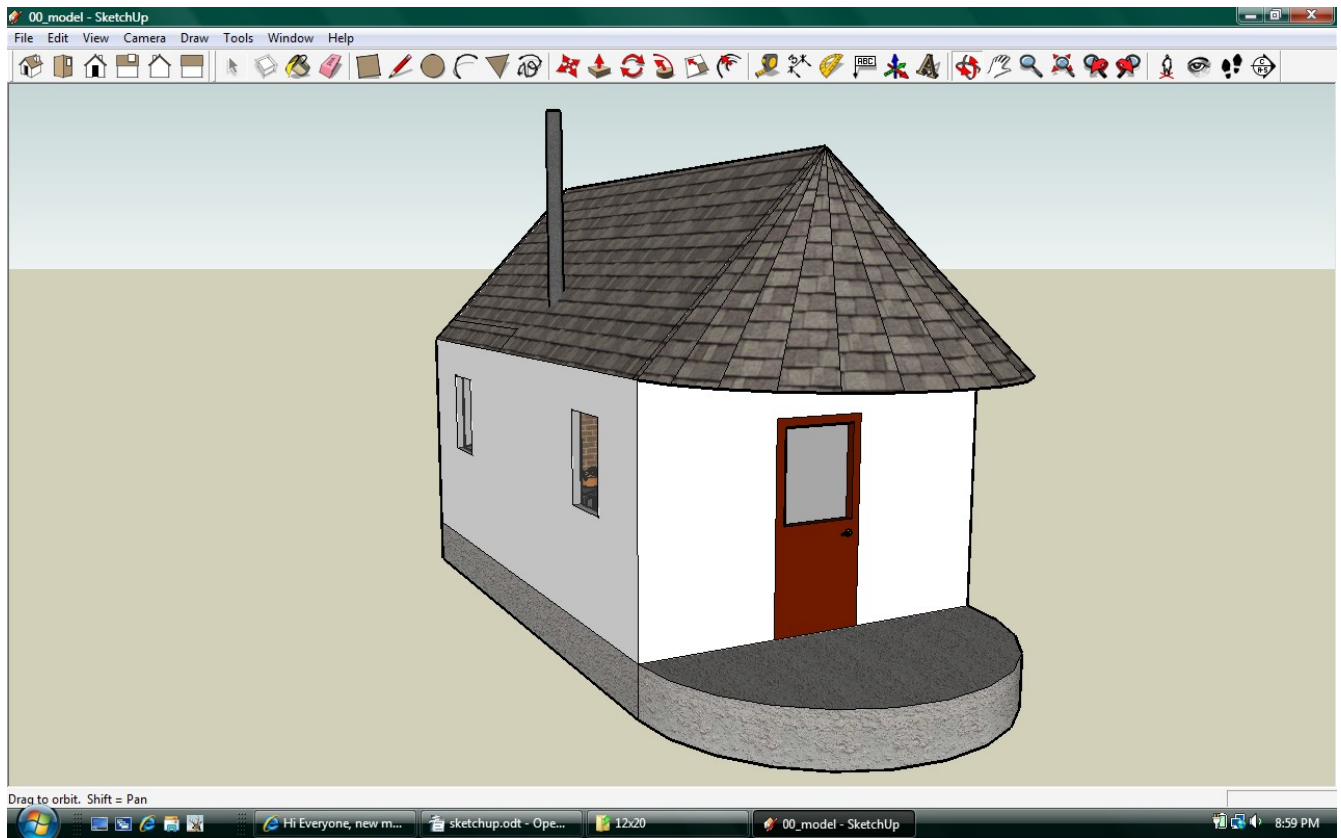


Now use the paint tool to make it look like something we want.

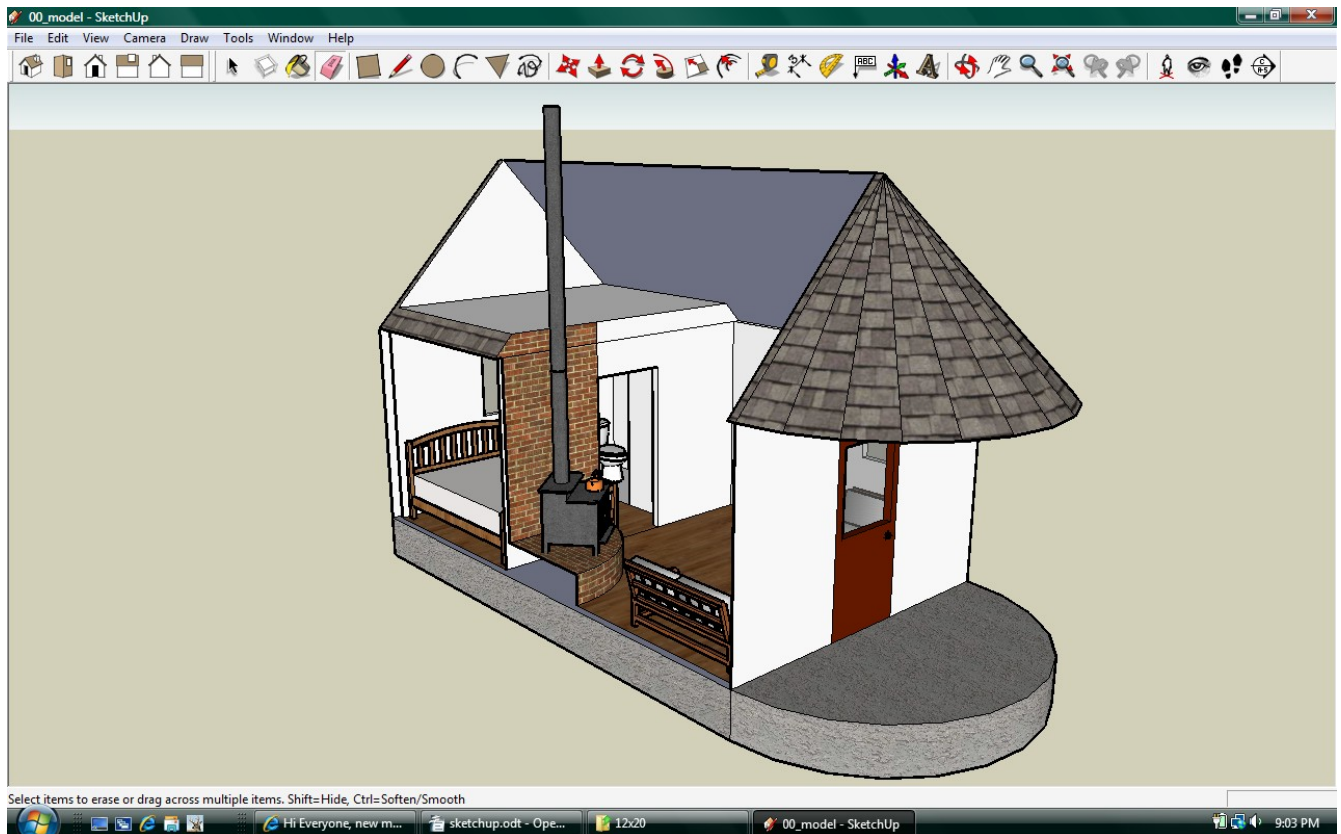


Ultimately you will want to get more and more detailed with this so that you can view your ideas. Here are some previous works I have done so you can see the greater levels of details. They were time consuming repetitive efforts.





I have no idea why I never finished this one, it looks pretty cool!



If you need to know how to get exact measurements, there are plenty of ways to cheat. Look up windows and doors you can afford on home improvement stores, and see what their install specifications are. You will find out they have to be installed in 6'8"x34 1/2" openings for a specific door, or 48"x32" for a window. If you don't know to engineer a sub-floor or foundation, look at what others have used for buildings the same size or larger than yours. It might cost a little more to overbuild, but the end result will last longer. There are tons of roof and floor joist calculators on-line free of charge.