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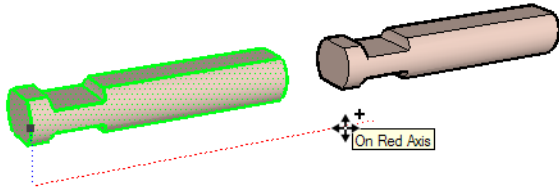
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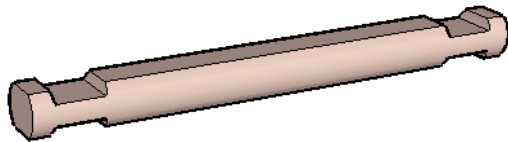
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Building the Cabin

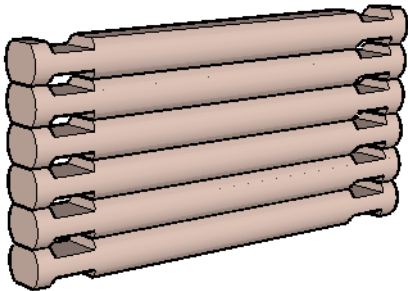
1. The notch should be on both ends of the log. So, select and copy the log along the log's axis.



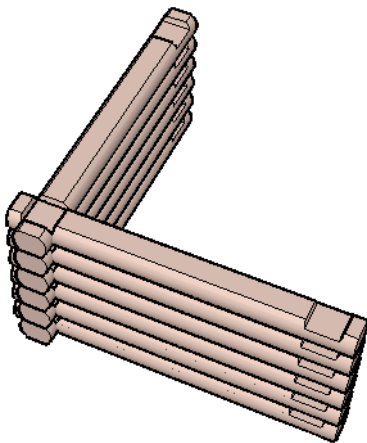
2. Right-click on the copied log and **Flip** it along the axis you used to copy it. (**Scale** or **Rotate** would also work.) Now move the flipped log back to the original so that they meet. Trim the extra edges; here is the final notched log.



3. Select this log and make it a new component called "Notched Log." Make several copies of this component.

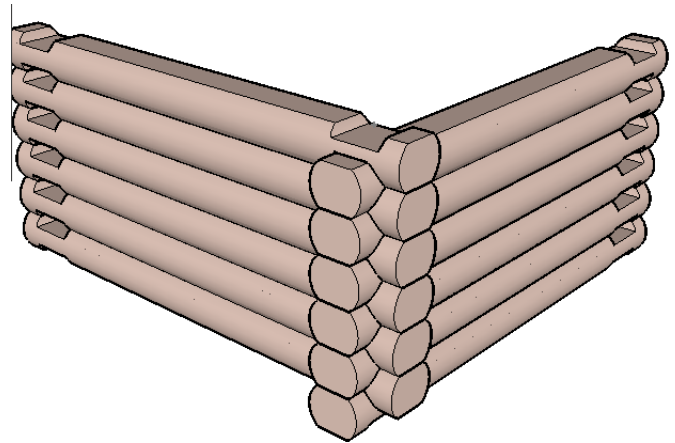


4. Select all components, and rotate-copy them 90 degrees, using the guide center point as before.

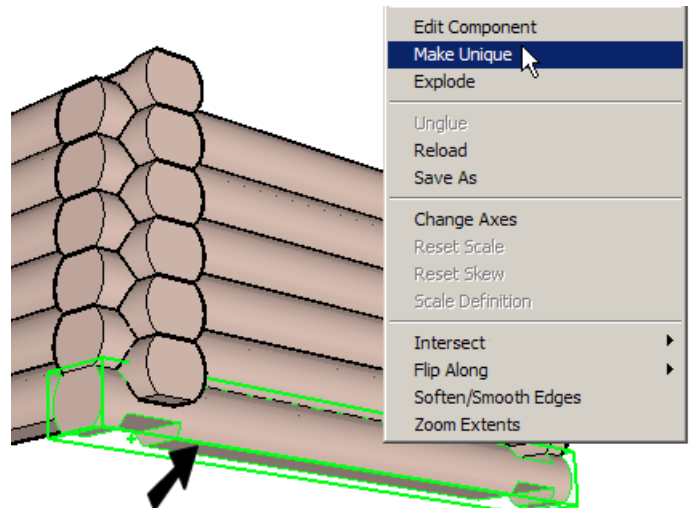


NOTE: If you want to make these rotated logs a different length, just rotate one log, use **Make Unique**, and edit it to change its length. Then copy the new component to make the second wall.

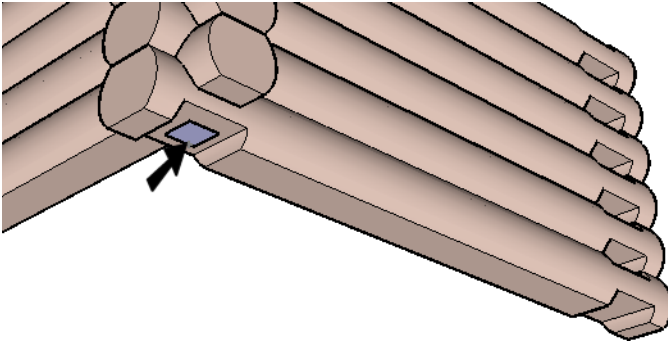
5. Select all rotated components and move them down. Drag them by the top guide point and stop at the midpoint of the first log.



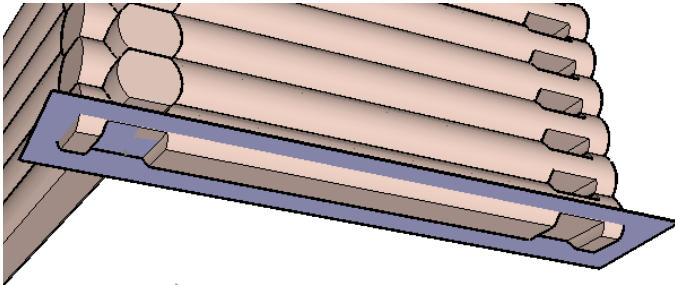
6. The bottom log should lie flat, so right-click it and select **Make Unique**.



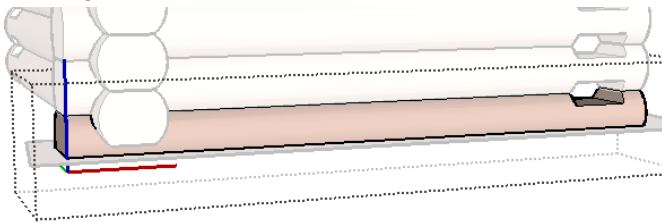
7. Draw a rectangle on the bottom notch face. This rectangle will be enlarged and used to trim the log. (The rectangle edges stay thick because you are drawing them on a component.)



8. **Move** the edges so that the rectangle surrounds the log.

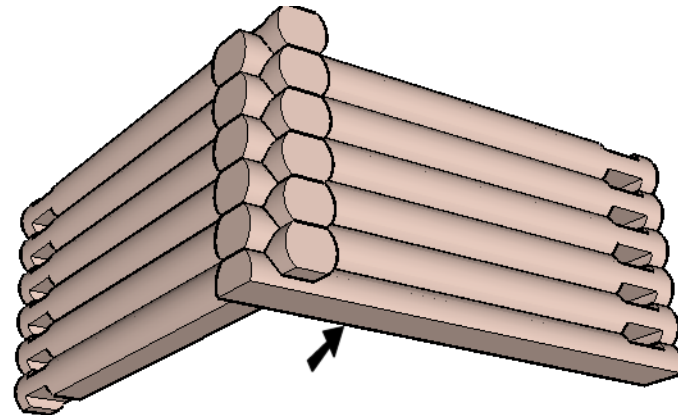


9. Edit this component, select it all, and **Intersect** it. Trim the portion of the log below the intersection edges.

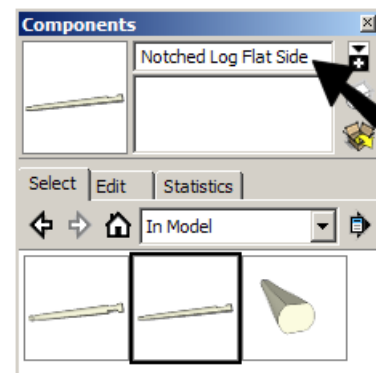


NOTE: You also could have skipped making the rectangle and just drawn long lines along the log.

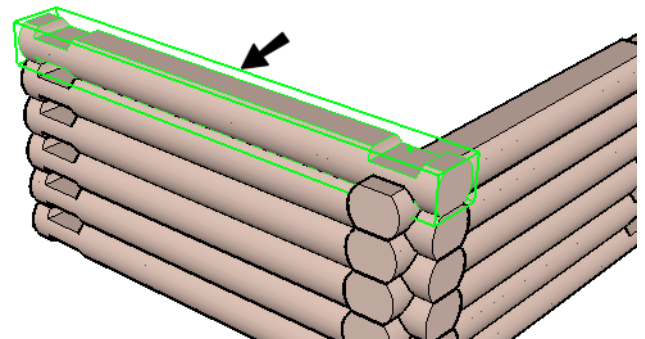
10. Close the component, and the bottom of the cabin is flat.



11. In the **Components** window, the component you just edited was assigned the name "Notched Log#1." To change the name, enter it at the top of the window (or use **Entity Info**).



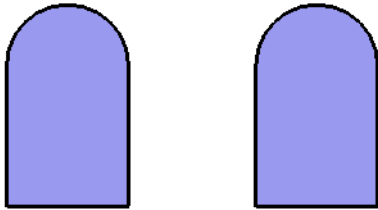
12. The top log here should also be flat. Select it.



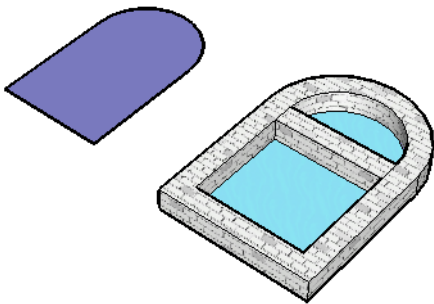
Nested Cutting Components - Any Wall Thickness

This method uses nested components that can be used to cut walls of any thickness. It is similar to "Creating a Window Component Plus a Cutout Component" on page 34, which uses two separate components - the window plus the cutout shape. This method uses a single component, but does not allow for window frames on both sides of the wall - only the front. (To use a component with details on both sides of a wall means you need to have a set wall thickness.)

1. Start in **Top** view like before. (If you want, you can start with a wall and create all the components vertically - that also works here.) Draw one arch shape, and copy it.

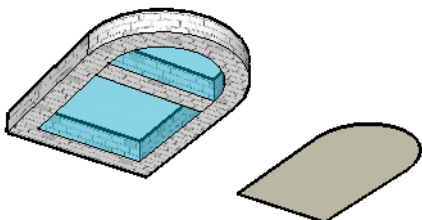


2. Offset the copy outward create a frame with a post. Assign a transparent material to the inner face and another material to the frame.

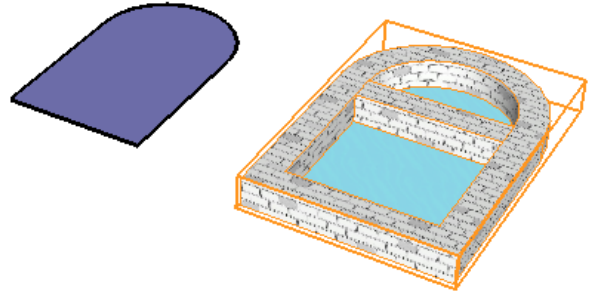


TIP: Press Ctrl while applying a material to paint all connected faces.

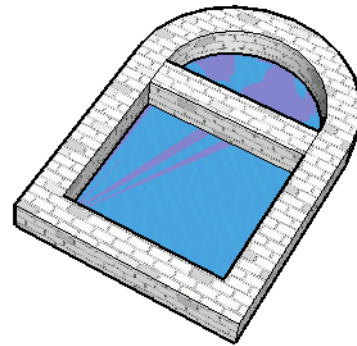
3. Check the frame from behind and fix faces and materials as needed.



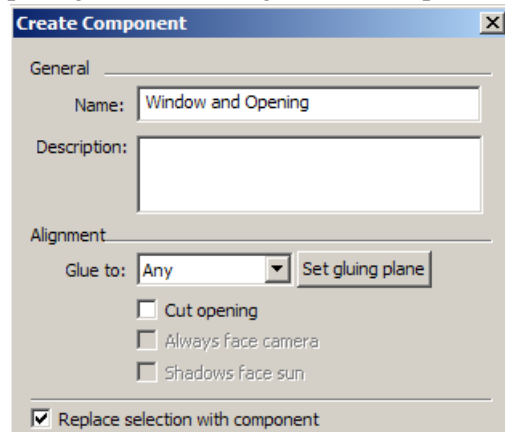
4. Make a "Window Front" component from this framed shape (do not include the original arch shape). It should be glued to **None**, and it does not cut openings.



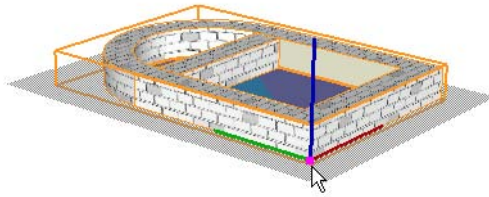
5. Move the original arch onto this new component, fitting it into the cutout area.



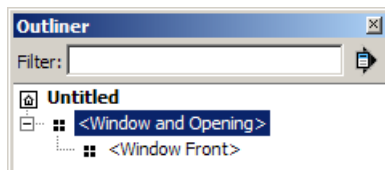
6. Create a new component consisting of the window front plus the arch shape, called "Window and Opening." It should be glued to **Any** plane.



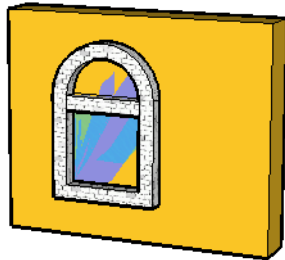
The gluing plane should be along the back of the arch frame.



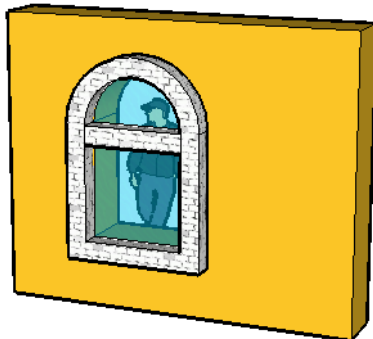
The new component appears in the **Outliner**, consisting of one nested component. (The arch face is also part of this component, but it does not appear in the **Outliner** because it is not its own group or component.)



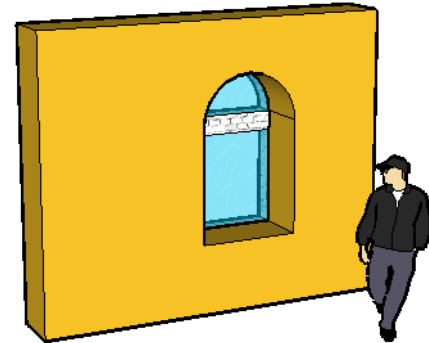
7. Make a vertical wall of any thickness and insert the Window and Opening component.



8. **Explode** this component so that it breaks down into the window frame and the arch cutout shape.
9. The arch shape is now free to manipulate. **Push/Pull** the arch face through the wall. You can now see through the glass and through the wall. (You can add a person component on the other side of the wall to verify this.)



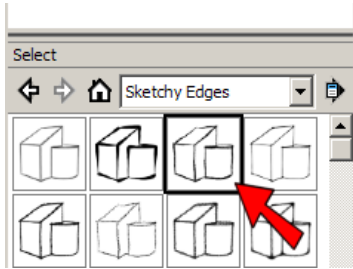
10. Check the window from behind. The wall has a neat cutout, and there is a face of glass where the window starts.



Sampling: Mixing and Matching Styles

In the previous exercise you saw one example of how to copy properties of one style to another. This section expands on this. We will continue with the same file, using the style library already created.

1. With the lower pane of the Styles window still displayed, open “Sketchy Edges” and activate “Sketchy Charcoal Loose.”

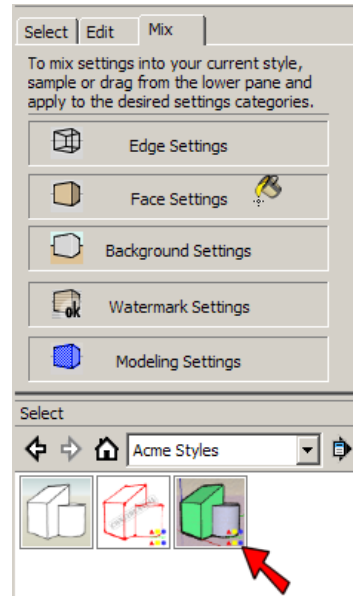


NOTE: Setting up your own sketchy style is described in “Sketchy Edges” on page 139.

This is how the model looks - no face colors or background, and charcoal edges.

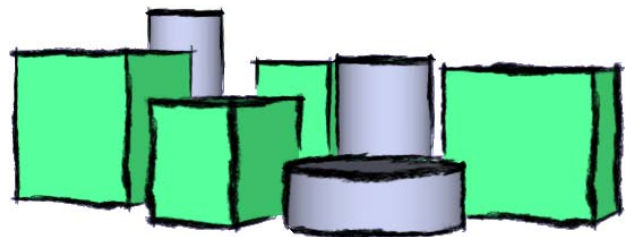


2. This style will be dressed up with features from other styles. Open the lower pane to “Acme Styles,” and set the top pane to **Mix**. The cursor is now an eyedropper. First click the “Sketchy Purple Background” style, then click **Face Settings** on the **Mix** page.

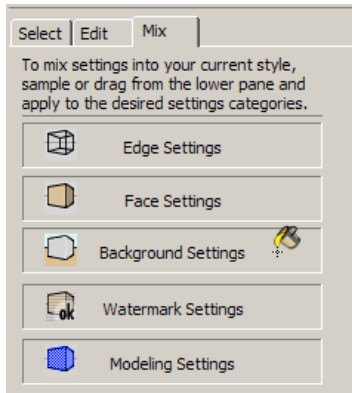


TIP: You can also click and drag the cursor from the “Sketchy Purple Background” thumbnail up to **Face Settings**.

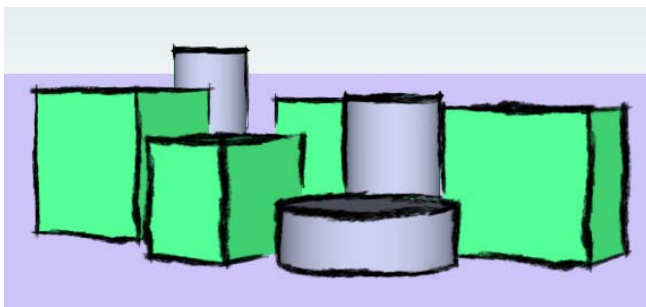
This imposes the face colors and face style (shaded with textures) from “Sketchy Purple” onto the current style.



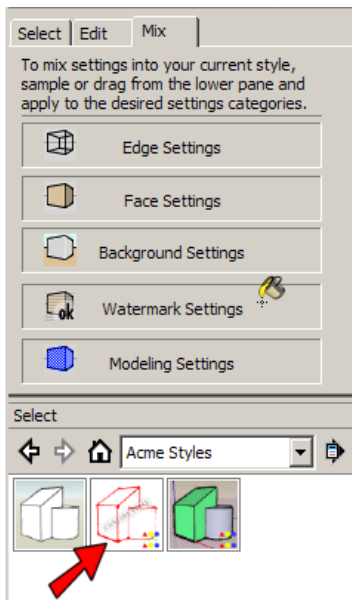
- You're still in sample mode from the same "Sketchy Purple" style, so now click on **Background Settings**.



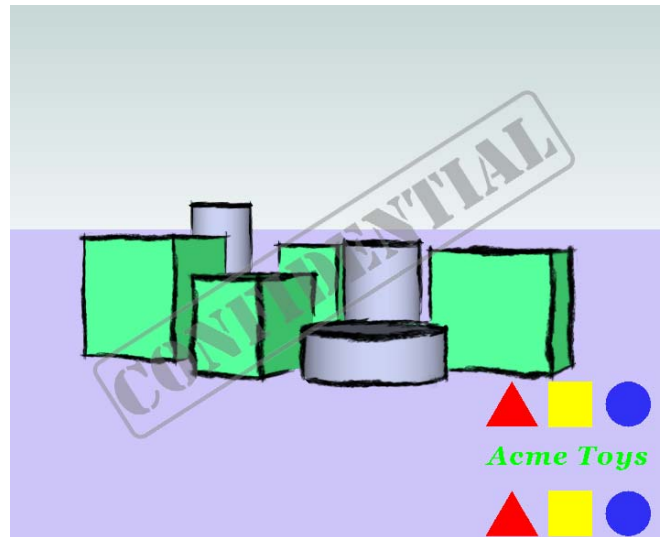
Now the background color and sky are added.



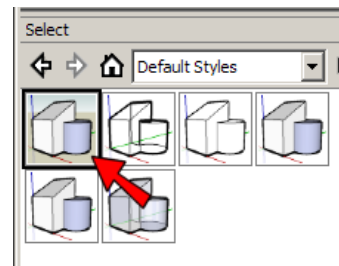
- Now sample the "Schematic" style in "Acme Styles" and take its **Watermark Settings**.



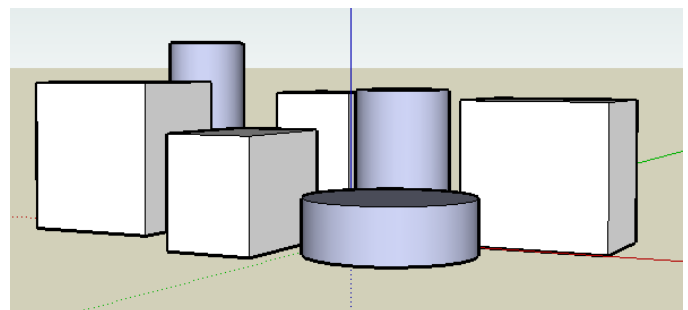
The two watermark images from "Schematic" are added to the style.



- If you want, you can **Update** this new style, find it In Model, and drag it into "Acme Styles" to save it.
- The previous example used styles from one library, but you can pick and choose from any styles in any folder. Open "Default Styles" and activate "00-Default Style." (You cannot activate a style while in **Mix** mode, so open either the **Select** or **Edit** tab first.)



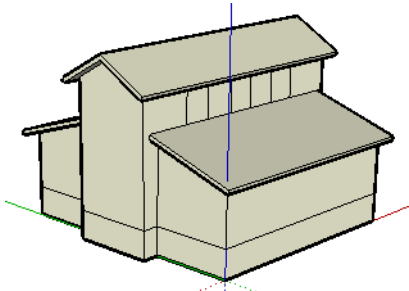
Here is the model in this style:



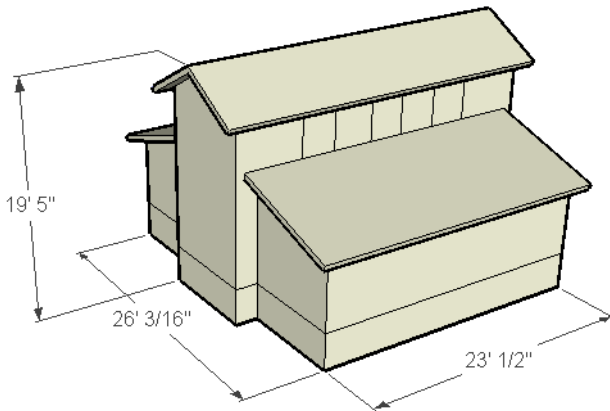
Using Photo Match with an Existing SketchUp Model

If you have an accurate SketchUp model, plus a photo or two of the actual model, it's easy to paint the model with the photo.

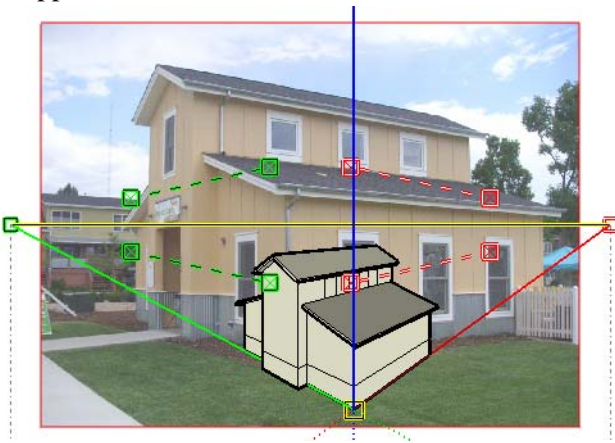
1. Open the "schoolhouse_model.skp" file.



2. Check the dimensions of this building - they seem reasonable. You don't have to keep the dimensions as part of the model, but keep their values in mind for later.

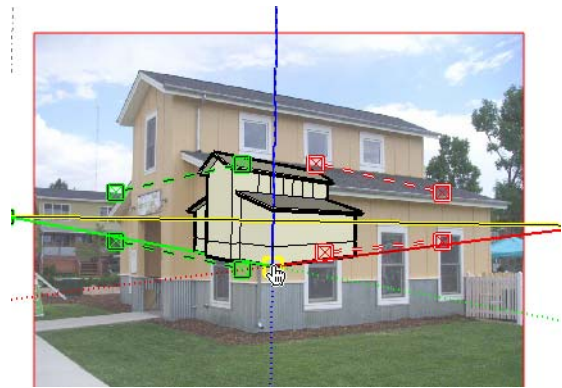


3. Import the "schoolhouse_photo.jpg" photo. It appears behind the model.

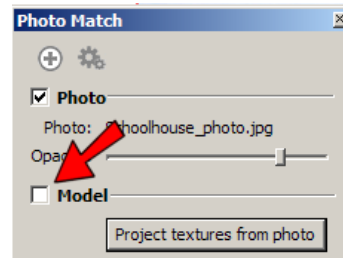


NOTE: You could also import the photo first and then import the model, but the model would be imported as a component, which you would then have to explode. It's easier to start with the model, if possible.

4. The model origin is at the front corner of the schoolhouse. Try to place the origin elsewhere, and you end up dragging the model around the photo.



5. To make it easier to adjust the axes to the photo, uncheck **Model** in the **Photo Match** window.



6. With the model hidden, place the origin at the same point it was in the model - at the front corner. Then set the red and green handles - this photo has many good reference points you can use along the roof and window lines.

