Google Sketch Getting Started Orientation

Open Google Sketchup.

Click on **Choose Template**

Choose **Simple Template- feet and inches**

Click on **Start Using Sketch up**

Basic Tools:

➢ Sketch up comes up with the basic tool bar at the top.
➢ It is useful to add the Large Tool Set to the side.

Click on **Tools**>**large Tool Set**

Let's also add useful tool bars. Add the Standard, View and Face Style Tool bars

➢ View>Toolbars>Standard
➢ View> Toolbars>View
➢ View>Toolbars>Face Style

*Helpful tip: to delete something- select it first then press the delete key.
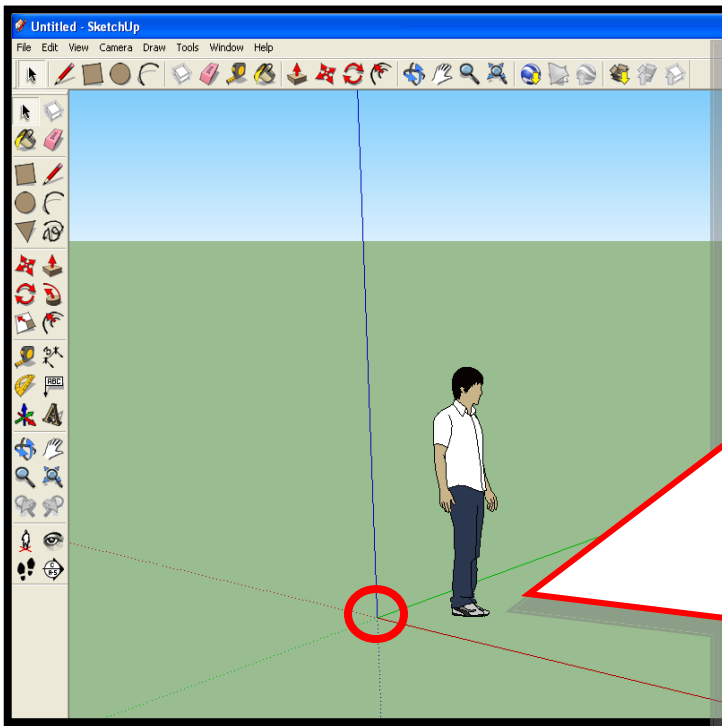*The backspace key does not work in sketch up.*

Basic Interface and common tools

➢ Google Sketch up draws in 2D and switches to 3D views.

Google Sketch up has 3 axes for length, height and depth.
Notice below how the 3 axis lines are **perpendicular**
because they intersect, forming congruent adjacent angles.

The screen will come up like this with a man standing in between the **green** and **red** lines and have a vertical **blue** line going up and down behind him
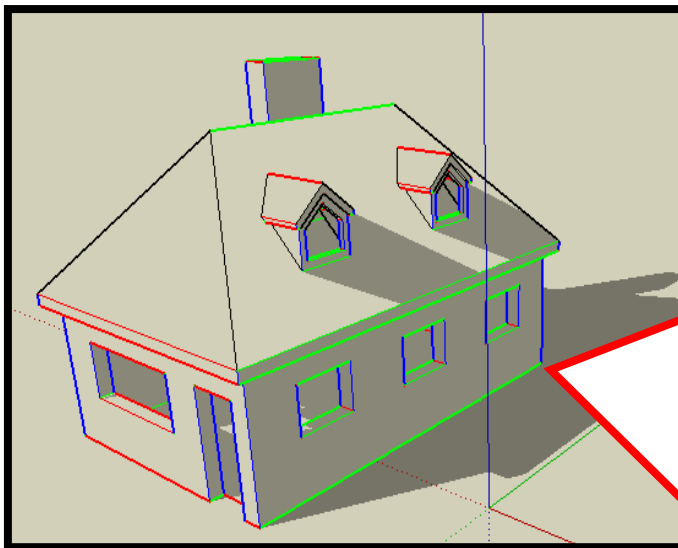
Red line = X axis horizontal: Measures length (goes left and right)

Blue line= Y axis Vertical: Measures Height (goes up and down)

Green line = Z axis: Measures depth (goes backwards and forwards)

➢ The **<u>origin</u>** is where all three points meet right in the middle.

➢ **All sketch up drawings** are also made up of edges (lines) and surfaces (faces) and must be drawn in the same plane (coplanar.)

Axis Lines Explanation

Examine each colored set of lines on this house.

Any lines parallel to one of the axes are the color of that axis.

For example,
- Green lines are parallel to the green axis (usually the backwards and forwards axis lines.)

- Red lines are parallel to the red axis (usually the left and right axis lines.)

- Blue lines are parallel to the blue axis (the up and down axis lines.)

- Lines which aren't parallel to any of the axes are black.

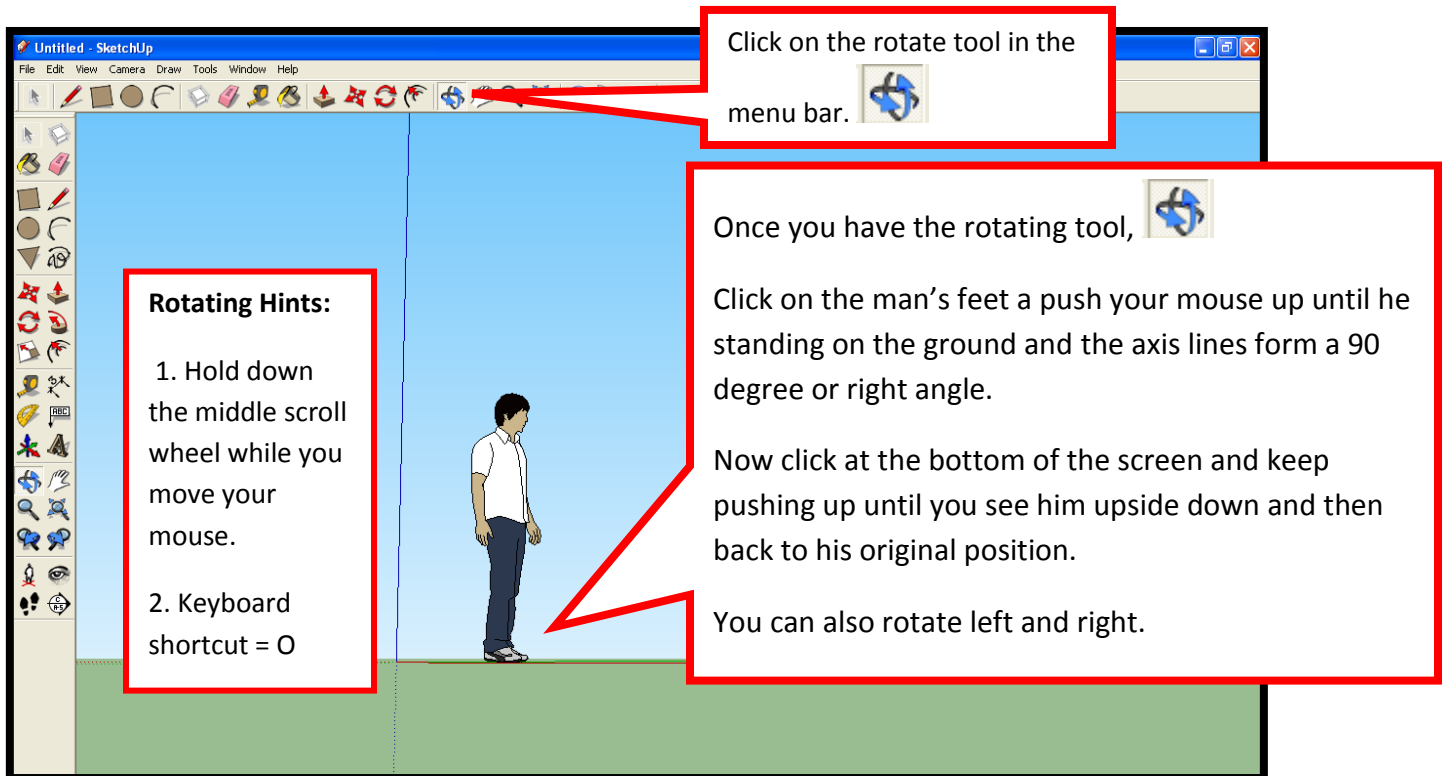**Note**: The red and green axis lines make up the ground plane.

Basic Tools:
- ➢ Selection
- ➢ Orbit (rotate)
- ➢ Move
- ➢ Pan
- ➢ Zoom

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Selection tool ⬉ is the default tool. Use to select objects. Press <u>spacebar</u> to return to this tool.

Orbit- Rotate tool- change the view- front, side, back, top, back and isometric

> Since you can and will view things from a 3D perspective
> (you can see objects from all sides by using the rotating tool.)

> Use the Rotate Tool ⟳ to create a flat plane and then rotate your man all the way around in all views. Note: *You can also click on the views boxes in your tool bar since we added these.*

Click on the rotate tool in the menu bar. ⟳

Once you have the rotating tool, ⟳

Click on the man's feet a push your mouse up until he standing on the ground and the axis lines form a 90 degree or right angle.

Now click at the bottom of the screen and keep pushing up until you see him upside down and then back to his original position.

You can also rotate left and right.

Rotating Hints:

 1. Hold down the middle scroll wheel while you move your mouse.

2. Keyboard shortcut = O

Pan- Move up & down or left & right (without orbiting)

You can pan across the screen with the hand tool.

> Just click on the hand and then push back and forth and up and down on your screen without rotating to see other parts of the screen.
> **Hint 1**: Hold the shift key down while you click and move your mouse.
> > **Hint 2:** Keyboard shortcut: "H" key on your keyboard.

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Move/Copy Tool- Moves and can also copy objects (if you hold down the Control key while Moving an object
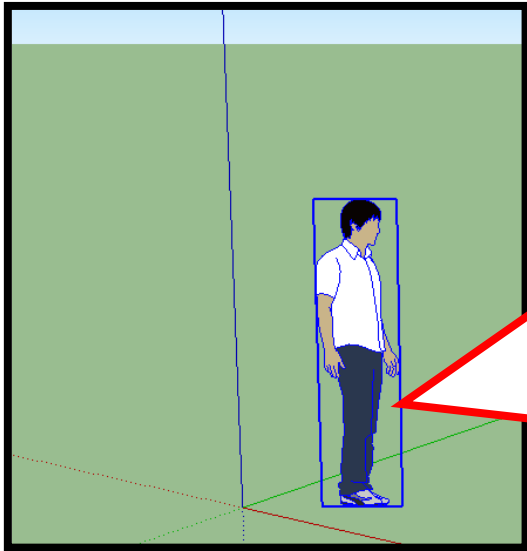
Click on the Move tool, [icon] then click on any object and you will be able to move it anywhere on the screen.
Hint 1: Keyboard shortcut= "M"
Move Nick to the other side of the blue axis.

You will also be able to rotate it if you click on the tiny red plus signs and rotate your mouse. Go ahead and rotate Nick if you like.

*Helpful hints:
  ➢ Press the spacebar to exit any tool.
 ➢ Press the escape key to cancel any actions you are currently in.

Zoom Tool- Changes perspectives- zoom in and out to change perspective views (size)

  ➢ Click on the zoom tool [icon] then move in and out.
  ➢ **Hint 1:** To zoom in and out- use the scroll bar on your mouse.
  ➢ To make screen **larger**: Scroll away from yourself
  ➢ To make view **smaller**: Scroll towards yourself.
  ➢ Hint 2: Keyboard shortcut " Z" key on your keyboard.

Zoom Extends Tool- [icon] resets your screen so you can see all of your objects or drawings. This is very useful if students scroll out and over and cannot see what they have created.
Hint: Press the "R" on your keyboard to reset your screen view as well.

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A look at perspective using Nick:

Did you notice when we move Nick farther away he looks smaller? He is the same size, he just appears to be smaller because your perspective has changed. Let's prove he is the same size.
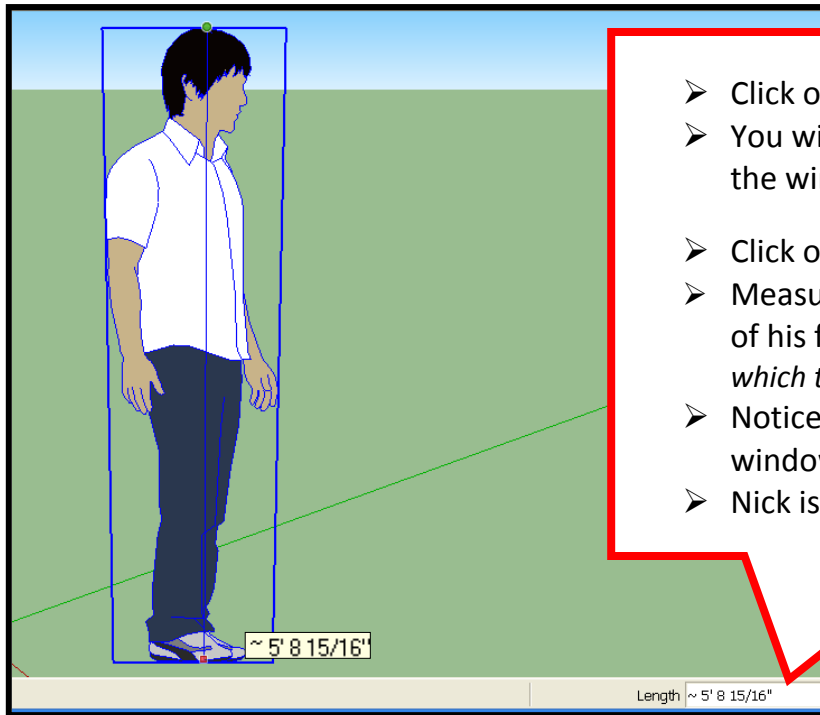
➤ Click on the Zoom Extends tool
➤ You will now see Nick as large as he will fit in the window.

➤ Click on the tape measure tool
➤ Measure from top of his head, to the bottom of his feet *(You'll see purple points to guide you which turn different colors after you click away.*
➤ Notice at the bottom you see a length window. This is called the Value Control box.
➤ Nick is almost exactly 5', 9" tall.
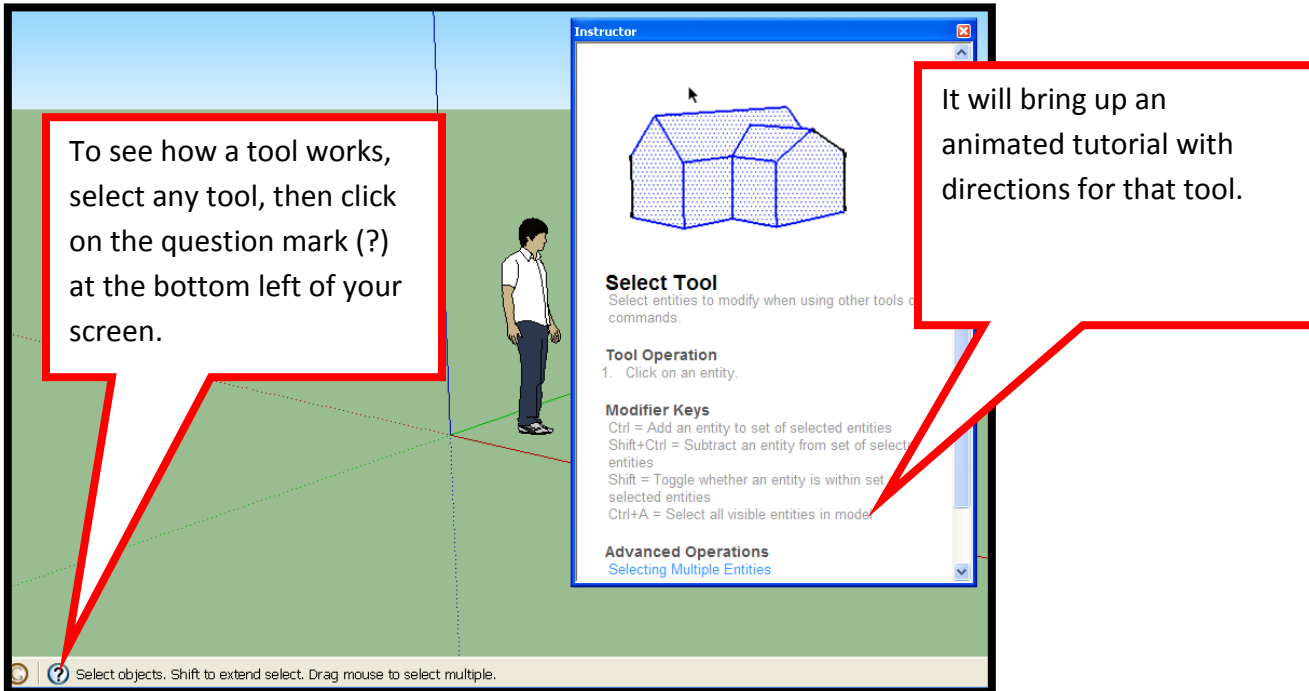
Length | ~ 5' 8 15/16"
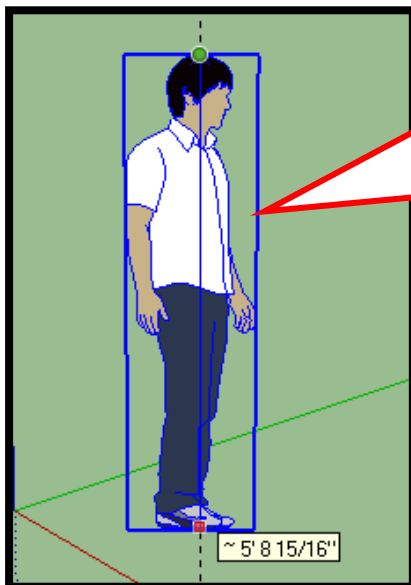
Now scroll away on your scroll bar so Nick appears smaller as shown to the left.

Click on the tape measure to re-measure Nick-

You will find he is about the same size (although sometimes it is harder to get exact measurements when objects are farther away.)

So Nick will help us keep perspective as we work in relationship to how big we need to draw objects such as houses, since the house should be taller than Nick so he can fit inside.

➢ Help with the Tools>Animated Tutorials

To see how a tool works, select any tool, then click on the question mark (?) at the bottom left of your screen.

It will bring up an animated tutorial with directions for that tool.

Click on this link for video tutorials and lessons (located on the right sidebar of the wiki. http://googlesketchupthornton.pbworks.com/

Click here to watch a 3 minute getting started video from Teacher Tube

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