

SketchUp:

Turn on the following Toolbars (View pulldown>Toolbars)

- Large Tool Set
- Face Style
- Standard
- Sections
- Views
- Shadows
- Layers

Draw lines

Align with direction

Align with another line (inferencing - hover over line and hold down shift key)

Use keyboard arrows (up arrow blue; right arrow red; left arrow green)

Use dimensions

Connect lines to form surfaces

Subdivide surfaces with lines

Autosnap functions

Circles and Arcs

Erase lines

Draw rectangle

Use dimensions

Rotate view: hold down center wheel and move mouse

Pan view: shift+hold down center wheel and move mouse

Zoom in: move mouse wheel away from you

Zoom out: move mouse wheel away towards you

Undo (Ctrl-Z)

Redo (Ctrl-Y)

Copy (Ctrl-C)

Paste (Ctrl-V)

Camera: Camera pulldown>choose Perspective or Parallel Projection

Views from toolbar:

Iso

Top

Front

Right

Back

Left

Select a surface
Right Click>Align View

Move lines or points

Select a line or point with the move tool - if you want to move it up and it does not show the blue axis, hold down the up arrow key

Copy: Move + Ctrl key

Push-pull

Select surface>Push-pull

Use dimensions

Draw rectangle on another rectangle

Use scale command and copy to clipboard

Paste from clipboard to another wall aligned with that wall

Erase rectangle to make a hole

Push pull rectangle to form a niche

Erase back face to form a hole

Paint back face with translucent material to look like glass

Round top window or door using arc command

Make Component & give it a name: Select objects>right click> Make Component>Create

Explode Component: Select component>Edit pull down>Component (1 in model)>Explode

Mirror using scale - make a group first

Rotate object - make group first, select group, select rotate command

Use measure tool to check distances

Use measure tool to create guides to snap points to

For example, a rectangular door in a wall

Layers

Make group first

Turn on layer dialogue box: Window tab>Layers

Add layers

Always draw on 0 layer then change a group to another layer by clicking on the group>right click>select Entity Info>change layer

Change color assigned to layer

Display "Color by Layer" in layer dialogue (you will need to click on the details arrow to make fly-out menu visible in Layer Dialogue box

You can change the opacity and value of each color

Paint Bucket Tool

Select "Colors"
Change opacity of colors
Assign colors to surfaces
Select "Materials"
Change size of materials

Shadows

Shadows dialogue
Toggle shadows on or off
Change character of shadows
Change month day and time of day
Light and dark shades and shadows

Animation

Add Scene
View pulldown>Animation>Add scene
Scenes can show layer state (on or off), shadows, colors and materials
Change view>Right click on the Scene>Add Scene
Scene Manager
Play Animation

Quick exercises:

1. Draw a square 30' on a side

Pull top up 12'

Draw lines crossing top (make sure that there are four separate lines to center)

Pull up apex of roof 10'

2. Draw rectangle 40' x 25'

Pull top up 12'

Draw a line down center of top

Move line up 7' to form a gable roof

3. Draw rectangle 35'-6" x 16'- 8 1/2"

Pull top up 15'

Draw a line down center of top

Draw 45 degree lines from corners

Erase unused line segments

Move ridge line up 9' to form a hip roof