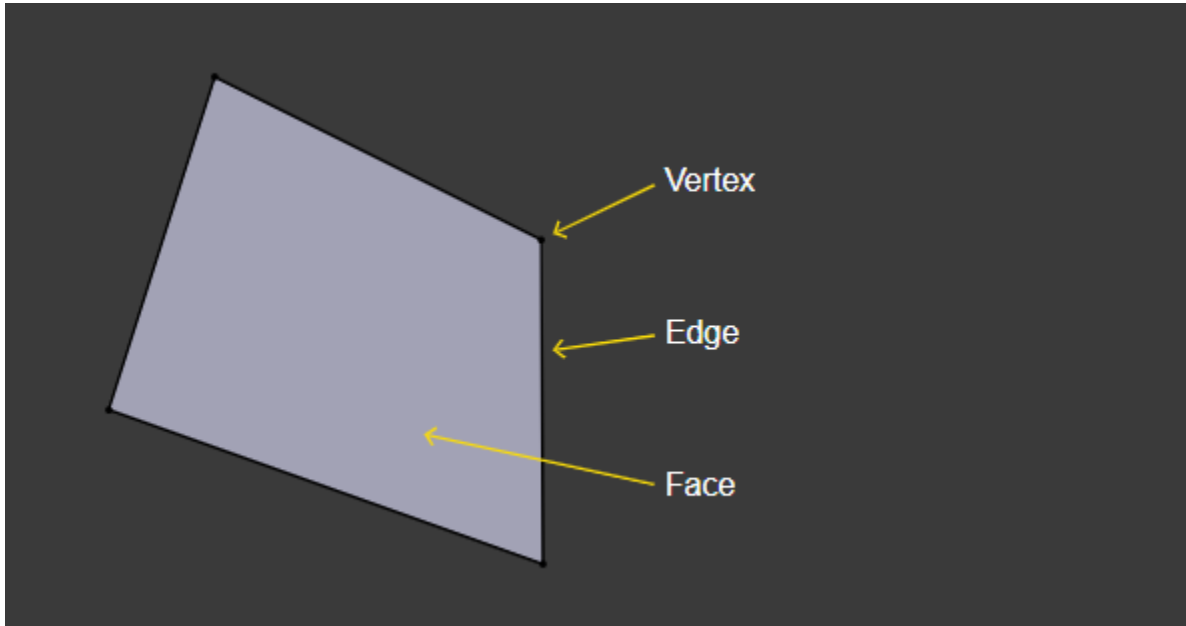Press TAB to enter into Edit Mode and to toggle back to Object Mode
There are 3 types of structures to a mesh object: vertex, edge, and face

Vertex (vertices for plural) represent a point in 3D space
Edges connect two vertices with a straight line
Faces are the surfaces of the object and what you see in the final render. A face requires a minimum of 3 vertices but can have more: 3-verts (triangle - always flat) 4-verts (quadrangle or quads - deform well) 5-verts and above (n-gon, or 5-gon for example)
Every face has a normal (a line perpendicular to the face)
Let's turn on the normals for the surfaces on the cube in Edit Mode → Mesh Overlays Menu → Normals panel


Moving Vertices Around
Click the vertex selection mode icon at the top left of the area and click on a vertex. Using the "g", "s", and "r" transformation shortcuts on the keyboard, try moving the vertex around the space. Watch how the cube faces and edges become distorted along with the movement

Show the Side Bar by pressing the "n" key on your keyboard and click on the "item" tab. Notice how the values in the item tab reflect the currently selected vertex, or the median of multiple selected vertices
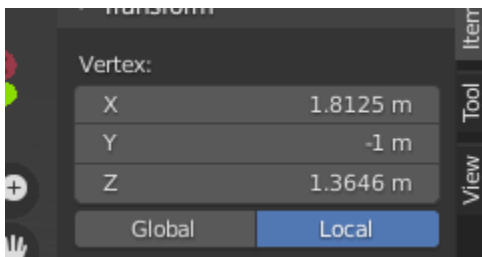
select all vertices by pressing the "**a**" key
deselect everything by pressing **alt + a**
Invert the selection by pressing **ctrl + i**

Clear the selection again by pressing alt+a and try dragging a box around the vertices to select them that way.

Look at the back of the cube. Did the vertices on the back get selected too?
Hold shift while clicking the remaining unselected vertices to add them to the selection
Deselect everything again alt+a. This time turn on x-ray mode and drag a selection box around the cube. Notice that the points on the back side did become selected when xray is turned on.

Click on the "select" drop-down menu in the main area header and explore some extra options in there.

Press "t" on your keyboard in edit mode to show the Tools menu and press "n" on your keyboard to show the SideBar
In the tools menu, click the Transform icon and try dragging a few vertices around the screen using the Gizmo that appears

Switch from vertex selection mode to edge selection mode and then to face selection mode and repeat the above exploration for each mode

Extrude

Still in edit mode, click the Extrude Region icon in the toolbar. With FaceSelection mode enabled, click on a face and drag the yellow handle that appears on the face to extrude the face. The geometry "expands" with an extrusion, adding more verts and edges and faces in the process.
Select another face and press the "**e**" key to extrude again. Try extruding various faces.
While extruding, press the x, y, or z key to constrain the extrusion to the axis. Also works by clicking the middle mouse button multiple times
While extruding, press the "**s**", "**r**", or "**g**" key to transform the face.
Try modeling a set of stairs

Inset Faces

Click the inset faces tool in the toolbar. Select a face on your object and drag the yellow handle that appears. The shortcut key is "**i**" on the keyboard

Try modelling a bookshelf. Tip, use extrude first, then select all the faces for the inset, and in the popup last action panel, select "individual". Finally, extrude the new faces inwards to make the final shape.
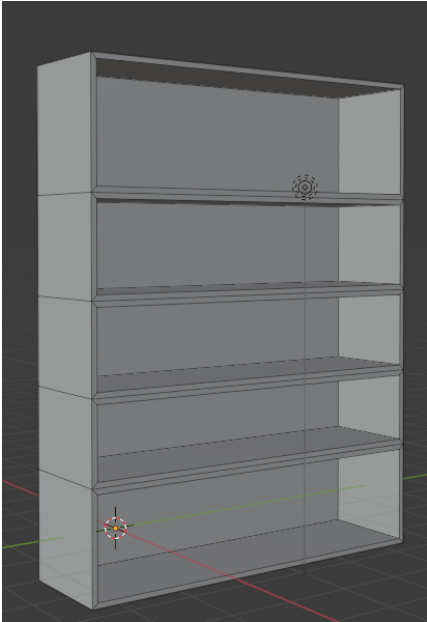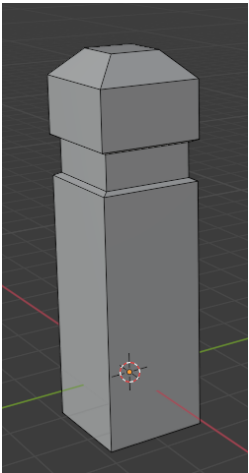

Bevel

Click the bevel icon and select an edge. Click and drag the yellow handle away from the edge to see the bevel. Shortcut is **ctrl+b**

Try making a fence post. Tip, use a combination of the extrude and the inset tools to make the middle recessed portion.

Selecting Loops
Alt + mouse click to select an edge loop
Alt +shift +mouse click to select multiple edge loops sequentially
Making loops

Click the Loop Cut icon in the tool bar. Hover the mouse near a face or set of faces. A Yellow line will appear in the middle of the face. Click the mouse and drag it to place the loop cut in a proper position. Adjust the settings in the popup panel. The shortcut is **ctrl + r.**

Play with the above tools for 10 minutes, creating an abstract geometric shape from extrusions loop cuts and bevels (and transformations as well)

Activity: Make a door
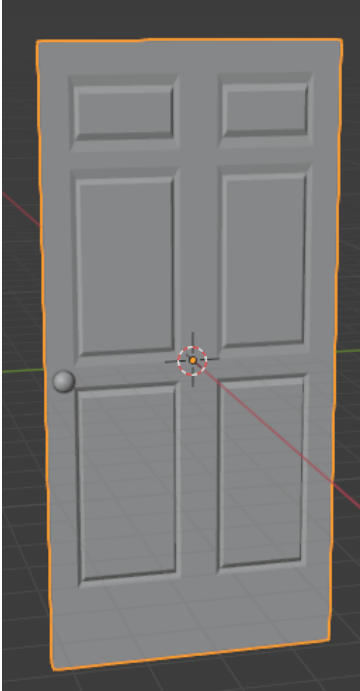
Activity: Make a blocky Dachshund dog
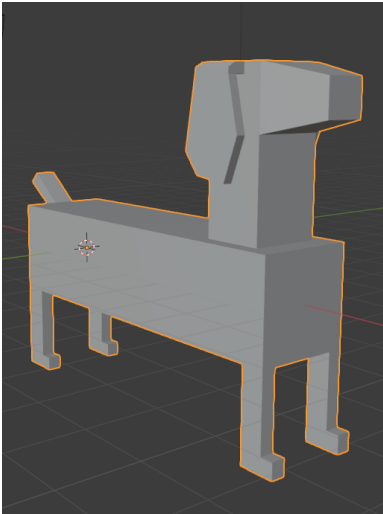
SAVE YOUR WORK BEFORE USING MODIFIERS

Modifiers:

Modifiers can only be applied in Object Mode

Toggle into Object Mode by pressing **Tab**. Make sure your object is selected. Click the wrench tab in the Properties area near the right side of the window. Click the Add Modifier dropdown menu. Click on the subdivision subsurface modifier to preview it on the selected object.
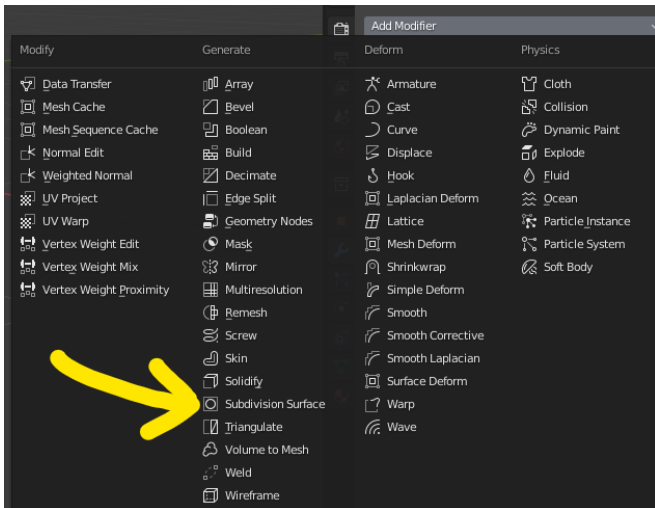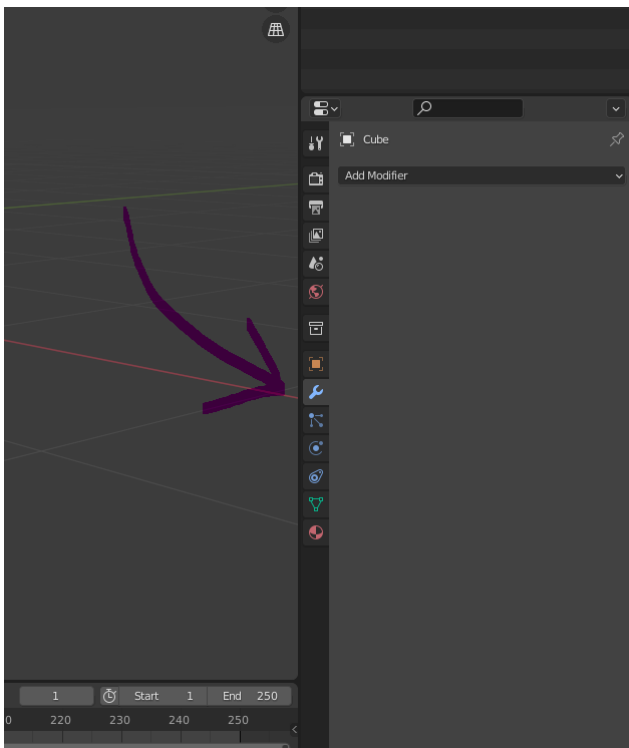
Image above is an example of the subdivision modifier applied to an object. Notice how the geometry appearance is changed.

Edge Data

Tab into Edit Mode with the object selected
Show the Side Bar menu by pressing the "n" key. Select an edge that you would like to keep sharp. With the edge selected, drag the Crease value slider up and down to the desired sharpness. As the crease value increases, the edge will look sharper, and its outline will change color to a pinkish magenta color.
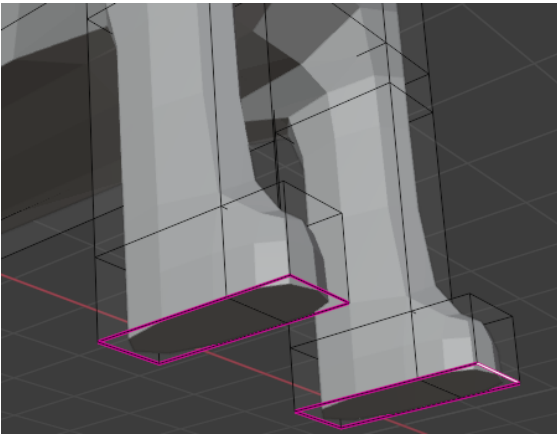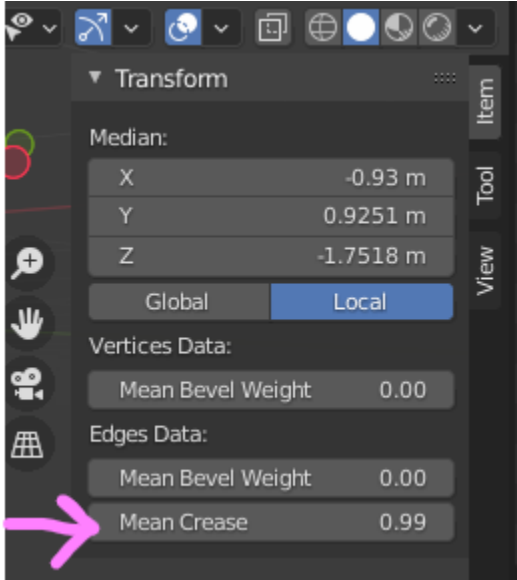
Apply the modifier to the mesh with **ctrl + a** or clicking in the modifier dropdown menu
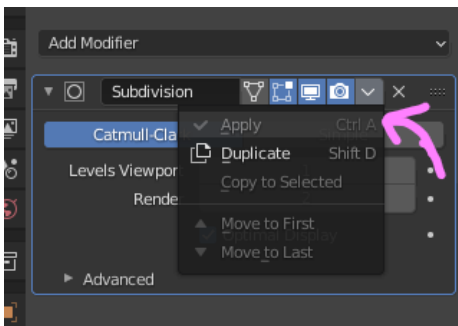
Now the smooth qualities of the modifier are baked into the mesh resulting in a more complex mesh
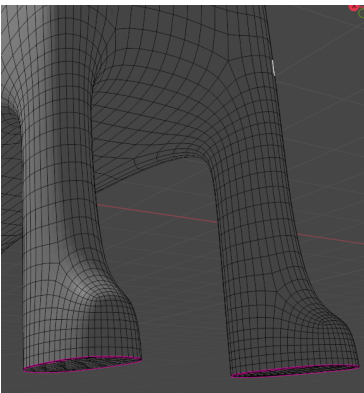
Proportional Editing

A complex mesh like above is now difficult to edit in edit mode with the standard vertex, edge, or face transformation. Proportional editing allows the transformations to take on a more organic and "flowy" movement that helps when working with complex meshes. It can be enabled or disabled here:
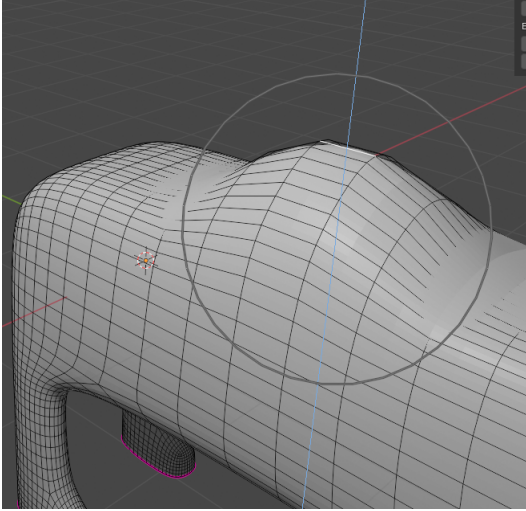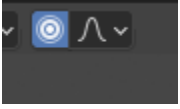
Select an edge, vertex, or face on the mesh. Begin the transformation with the "g", "s", or "r" key. While transforming, roll the mouse wheel to change the amount of influence the proportional editing tool has on the shape.

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In the layout viewport, click the cube to make it the active object then click the object modes dropdown
You will see a list of modes.
Now select the light as the selected object and again click the object modes dropdown. The list is different depending on the type of object selected.

Object Mode List

Blender's Modes

Icon	Name	Details
	Object Mode	The default mode, available for all object types, as it is dedicated to *Object* data-block editing (e.g. position, rotation, size).
	Edit Mode	A mode available for all renderable object types, as it is dedicated to their "shape" *Object Data* data-block editing (e.g. vertices/edges/faces for meshes, control points for curves/surfaces, strokes/points for Grease Pencil, etc.).
	Sculpt Mode	A mesh-only mode, that enables Blender's mesh 3D-sculpting tool.
	Vertex Paint Mode	A mesh-only mode, that allows you to set your mesh's vertices colors (i.e. to "paint" them).
	Weight Paint Mode	A mesh-only mode, dedicated to vertex group weighting.
	Texture Paint Mode	A mesh-only mode, that allows you to paint your mesh's texture directly on the model, in the 3D Viewport.
	Particle Edit Mode	A mesh-only mode, dedicated to particle systems, useful with editable systems (hair).
	Pose Mode	An armature only mode, dedicated to armature posing.
	Draw Mode	A Grease Pencil only mode, dedicated to create Grease Pencil strokes.

Add two cubes in object mode
Enter edit mode for one of them and exit edit mode again using Tab key
Select the other cube and do the same, toggling in and out of edit mode
Select first cube and in edit mode drag the vertices around. When finished, return to object mode

Selecting vertices, edges and faces, different ways
Dragging vertices around using grab, rotate, and scale

Joining two objects into one edit mode
Separating two objects inside edit mode