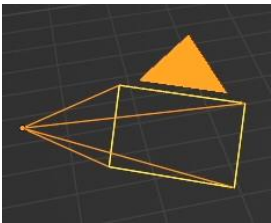
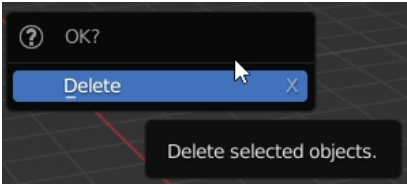
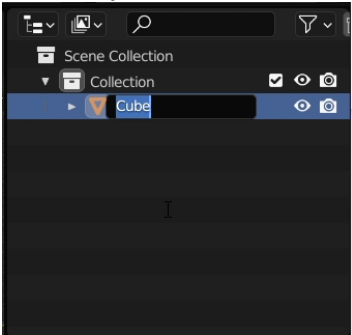

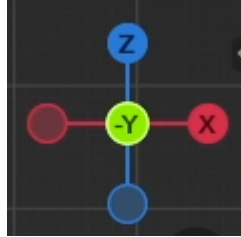

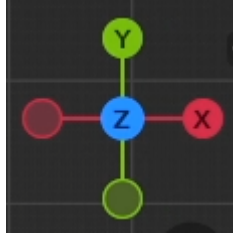


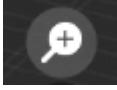



# Blender – Fundamentals of Modeling

## Section 1 – Getting Started

### Maneuvering in the Viewport

Description	Command/Icon
<b>Select Objects</b> Selecting an object in the world turns it orange in the viewport and in the Outliner	Left Click  <i>Figure 1 - The Default Camera, Selected</i>
<b>Delete Objects</b> Deleting an object removes it from our project completely	DELETE, X -> Delete  <i>Figure 2- X to Delete Selected Object</i>
<b>Undo</b> Undo the last action you performed	CTRL + Z, Edit -> Undo
<b>Redo</b> Redo the action you just undid	SHIFT + CTRL + Z, Edit -> Redo
<b>Rename Objects</b> Objects have default names, but they can be renamed for organization	Double-click the object in the outliner  <i>Figure 3 - Renaming the Default Cube</i>
<b>Orbit</b>	Middle Mouse Click + Drag Mouse,

<p>Rotate our view in the Viewport</p>	<p>Left Click and drag on the gizmo to orbit</p>  <p><i>Figure 4 - The Gizmo</i></p>
<p><b>Emulate a Middle Mouse Button</b> You can emulate a middle mouse button if you don't have one</p> <p><b>NOTE:</b> Hold ALT and Left Click in place of the Middle Mouse Button</p>	<p>Edit -&gt; Preferences -&gt; Input -&gt; Emulate 3 Button Mouse</p>
<p><b>Front View</b> Front View places us on the -Y side of the origin, looking in the +Y direction</p> <p><b>NOTE:</b> CTRL + 1 places us on the opposite side (+Y)</p>	<p>Click the green -Y in the Gizmo, Numpad 1</p>  <p><i>Figure 5 - The Gizmo in Front View</i></p>
<p><b>Side View</b> Side View places us on the +X side of the origin, looking in the -X direction</p> <p><b>NOTE:</b> CTRL + 3 places us on the opposite side (-X)</p>	<p>Click the red X in the Gizmo, Numpad 3</p>  <p><i>Figure 6 - The Gizmo in Side View</i></p>
<p><b>Top View</b> Side View places us on the +Z side of the origin, looking down in the -Z direction</p> <p><b>NOTE:</b> CTRL + 7 places us on the opposite side (-Z)</p>	<p>Click the blue Z in the Gizmo, Numpad 7</p>  <p><i>Figure 7 - The Gizmo in Top View</i></p>

<p><b>Zoom</b> Zooming brings us closer or farther away from objects in the Viewport</p>	<p>CTRL + Middle Mouse Button, Scroll the Middle Mouse Wheel, Click the Zoom Icon and Drag</p>  <p><i>Figure 8 - Zoom Icon</i></p>
<p><b>Snap to View</b> Snaps our view to one of the discrete directions</p>	<p>ALT + Middle Mouse Click and Drag</p>
<p><b>Pan</b> Shifts our View in the Plane of the Screen</p>	<p>SHIFT + Middle Mouse Click and Drag, Click the Pan Icon and Drag</p>  <p><i>Figure 9 - Pan Icon</i></p>
<p><b>Orthographic View/Perspective View</b> Objects are smaller in the distance in Perspective View. Objects are a constant size in Orthographic View.</p> <p><b>NOTE:</b> Views from the Side, Front, and Top are in Orthographic View by Default</p>	<p>Numpad 5, Click the Perspective/Orthographic Icon</p>  <p><i>Figure 10 - Icon Showing Perspective View</i></p>  <p><i>Figure 11 - Icon Showing Orthographic View</i></p>

## Resources

<https://blender.org>