

Kristen's *Blender-On-Mac* Manual

GENERAL

File → User Preferences → Input → Tick *"emulate 3 button mouse"*

File → User Preferences → Input → Tick *"emulate numpad"*

X	Delete
Ctrl Z	Undo
Ctrl Shift Z	Redo
Tab	Toggle <i>"edit"</i> and <i>"object"</i> mode
Z	Toggle <i>"wire frame"</i> and <i>"filled shape"</i>
O	Toggle <i>"Proportional Editing Tool"</i> ON and OFF
N	Open/Close <i>"properties panel"</i>

MOVEMENT CONTROLS

Shift + Scroll up/down/left/right	Move up, down, left and right on screen view
R	Rotate
Click and Drag	<i>On coloured object arrows</i> → to move object in that axis <i>Left and right on "Transform"/ "Image"</i> <i>X or Y parameters</i> → Move image in that axis
Alt + Click and Drag	Swing around object for rotational views
Shift + click	Select more than one object

EDITING TOOLS

C	Circle select <i>Note: click and hold + drag up and down to change size of circle select</i>
B	Box select
Esc	Back to cursor
A	Deselect all / Select all vertices
E	Extrude
G	Grab
F	Select 4 points, then press F to create a "quad"
Ctrl R	Create "edge loop"
W	Press after selecting a group of vertices ➔ Gives options eg. subdivide, smooth
S	Scale/Size tool + scroll to control Press X or Y too widen or narrow object in X or Y axis
Shift + D	(in "edit" mode) ➔ Duplicate <i>Can then move duplicate object using arrows as usual</i>

P	Select duplicate object only → P → Selection <i>Separates duplicate from original so can move separately</i>
Ctrl P	Object mode → select mesh and armature → Ctrl P for “parent menu” → Armature Deform (with automatic weights)
Ctrl J	Object mode → select all objects → Ctrl J to “join all objects”

CAMERA VIEWS

Ctrl 3	Left
3	Right
Ctrl 1	Back
1	Front
Ctrl 7	Bottom
7	Top
0	Camera
5	Toggle " <i>perspective</i> " and " <i>ortho</i> " views

TO MOVE CAMERA

Must be in "*object mode*", then right click (*Ctrl + click*) to select camera

R	Rotate
R (x2)	Surrounding Rotate
G	Move

MODIFIERS

Subdivision Surface	Simple surface subdivision
Multiresolution	Different layers of subdivision
Mirror	Work on one side and will be symmetrical
Skin	Eg. if making a tree, can draw outline by extruding from 1 vertex, then add skin modifier to fill/flesh it out

GOOD BLENDER TUTORIALS

Make a Backdrop	https://www.youtube.com/watch?v=m3gNy6w90fA
Create an Eyeball	<p>https://www.youtube.com/watch?v=Lmq4XgJZRjg</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> • Ensure texture is selected to be applied “flat” • To select “shader” for outer eye, need to be in “Cycles Render” NOT “Blender Render” <p><u>Alternatively:</u></p> <ul style="list-style-type: none"> • Use sphere, smooth shading and select + assign colour material to make iris and pupil colours
Rig Eyeball	<p>https://www.youtube.com/watch?v=c9VhMQkOWJs&t=188s</p> <p><i>* Select individual eye bones, then select central eye control bone → Ctrl+P → bone</i></p> <p><i>** Can do mechanical eyelids in the same way</i></p>
Rigging and Animation	<p>https://www.youtube.com/watch?v=mhQY2_gVoVg&t=382s</p> <p>https://www.youtube.com/watch?v=G3gIN4dJYw4&t=78s</p> <p><i>Join character parts together -Ctrl+G – (after all armatures including eyes are done) Then use tutorial to join mesh and armature</i></p> <p><i>* Select object, then armature → Ctrl+P → use automatic weights</i></p>
Save and Change Size of Rendered Image	https://www.youtube.com/watch?v=-vyISbqjGU
Duplicate and Separate Objects	https://www.youtube.com/watch?v=Bc-zPyV1kew
Create Low Poly Scene	https://www.youtube.com/watch?v=Z6vuhnyHk9g
Create Low Poly Animal	https://www.youtube.com/watch?v=JjW6r10MIqs

Create Low Poly Man	https://www.youtube.com/watch?v=GAfkQrGWn8A
Create Animated Creek	https://www.youtube.com/watch?v=VbHqIDLa39I
Create General Blend Sky (World)	https://www.youtube.com/watch?v=HT_li5cLwFk
Create Starry Night (World)	https://www.youtube.com/watch?v=sb4ryQMvRi4
Create Ocean (Scene)	<p>https://www.youtube.com/watch?v=zxew8OjwxE4</p> <p><u>Note:</u> Animation is from one keyframe to the next so while Time is green, change it to the next ocean view (eg. 10), THEN after this, hover and press “I” to set the keyframe</p>
Create a Tree	<p>https://www.youtube.com/watch?v=WIRF5S0aHwU</p> <ul style="list-style-type: none"> • File → User Preferences → Enable Sapling Add-On • Shift A → Add Sapling → do all changes before clicking out and moving the tree <p>Geometry → tick bevel → bevel resolution to 2 (trunk) Branch Splitting → increase levels for more branch sprouting branches Branch Growth Armature → tick use armature Animation → Wind strength and gust to 0.3 Leaves → tick show leaves → select rectangular leaves</p>
Create Grass	https://www.youtube.com/watch?v=mZR_WKVYiX8
Make Object Glow	<p>https://www.youtube.com/watch?v=hng1JqlbL84</p> <p>Ensure “<i>indirect lighting</i>” checked in world setting</p>
Particles	https://www.youtube.com/watch?v=vITdyPegZOk
Adding New Scenes	https://www.youtube.com/watch?v=T30-PptopK4

ANIMATION TOOLS

<p>Set Key Frames Animation Basics</p>	<p>https://www.youtube.com/watch?v=CFFhgutjZQk</p> <p>Add Keyframe – “i + loc/rot/scale” Delete Keyframe – “space + delete keyframe → delete keyframe”</p>
<p>Rendering Scenes + Joining Them Together (Also which movie and music settings to pick)</p>	<p>https://www.youtube.com/watch?v=OE9cdMdoBQc</p>
<p>Add Music and Playback to Animation</p>	<p>https://www.youtube.com/watch?v=JK8AUMCIEls</p>
<p>Title Effects</p>	<p>https://www.youtube.com/watch?v=gYXSo2xDUPE (create title text)</p> <p>https://www.youtube.com/watch?v=uPD824jr7Cc&t=14s (Fade in/out title)</p>
<p>Switching Between Cameras</p>	<p>https://www.youtube.com/watch?v=2KwjSi9umU</p> <p>Add Marker – “M” Bind Camera to Marker – “Ctrl + B” Delete Marker – “X”</p>
<p>Allow Negative Frames in Playback (BUT CANNOT RENDER THESE)</p>	<p>https://www.youtube.com/watch?v=dKVWp_-6jdQ</p> <p>File → user preferences → editing → tick “enable negative frames in playback”</p>
<p>Move All Animation Scenes</p>	<p>https://blender.stackexchange.com/questions/1037/move-keyframes-from-timeline</p> <p>Dope Editor → B → box select master channel → G → move so that all scene about frame 0 → then can render</p>

VIDEO EDITING TOOLS

B	Box Select
A	Deselect
G	Move
K	Select strip wanting to cut and move to where wanting to make the cut, then press K See: https://www.youtube.com/watch?v=Pw-GPKEMNxY
Slow or Speed Up Movie Clip	Basically change fps https://www.youtube.com/watch?v=MVGUGL1uSEA
Fade In / Fade Out	https://www.youtube.com/watch?v=T_PRXTZoHtI Add → Effect Strip → “colour” → Select colour, then animation (if fading in, or opposite if fading out) → Effect Strip → “gamma cross”
Transitions	Ensure nothing is selected, including sometimes the white box around last selected item. → Select animation strips in order (ie. If planning fade from A to B, select A then B) → Add → Effect Strip → “cross”
Music Transition and Fading	https://www.youtube.com/watch?v=Vgc2R7TPCxY (Set volume to 1.0, the 0 and keyframe times) https://www.youtube.com/watch?v=beWj_mw0M-l Music Crossfades: Select sound strips in order → Strip → “crossfade sounds”

Export to Movie File

<https://blender.stackexchange.com/questions/38676/how-to-export-an-edited-clip-into-a-video-file-in-the-vse>

Output as **H.264**

Encoding → Format **Quicktime**, Audio Codec **MP3 (Mac)**

Format MPEG4 (for Windows)