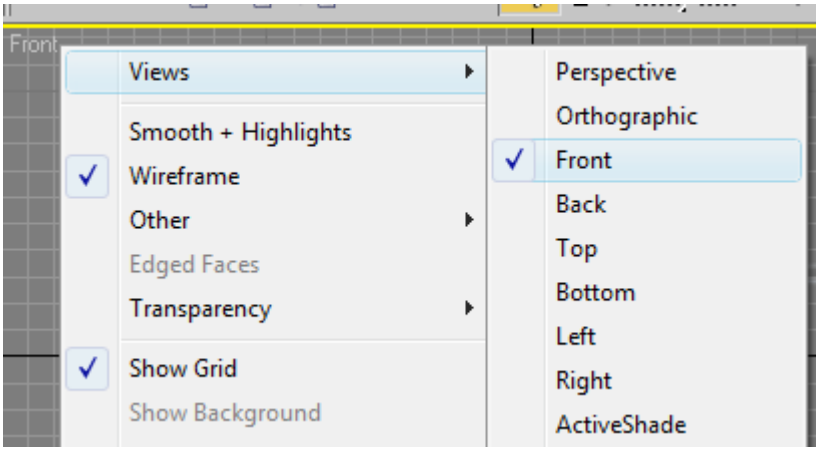
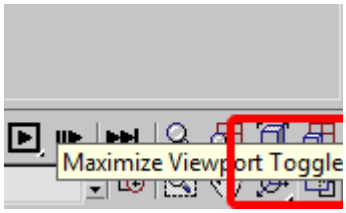
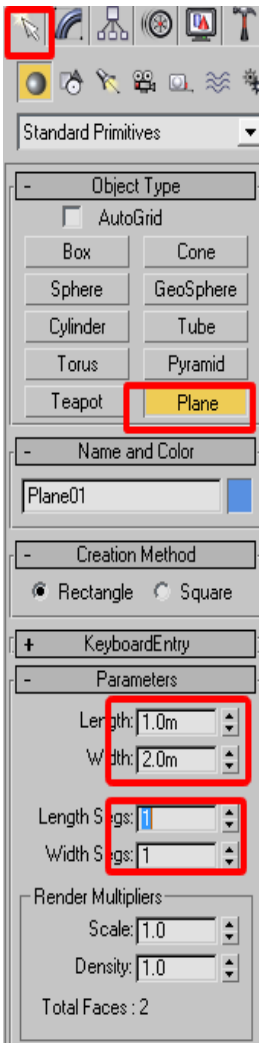
Creating a fish using low poly modelling techniques.

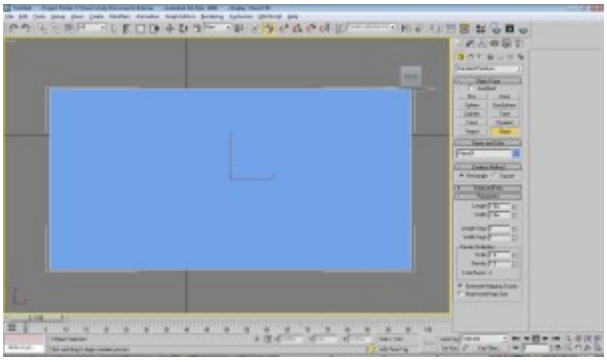
1. Place image of fish in viewport

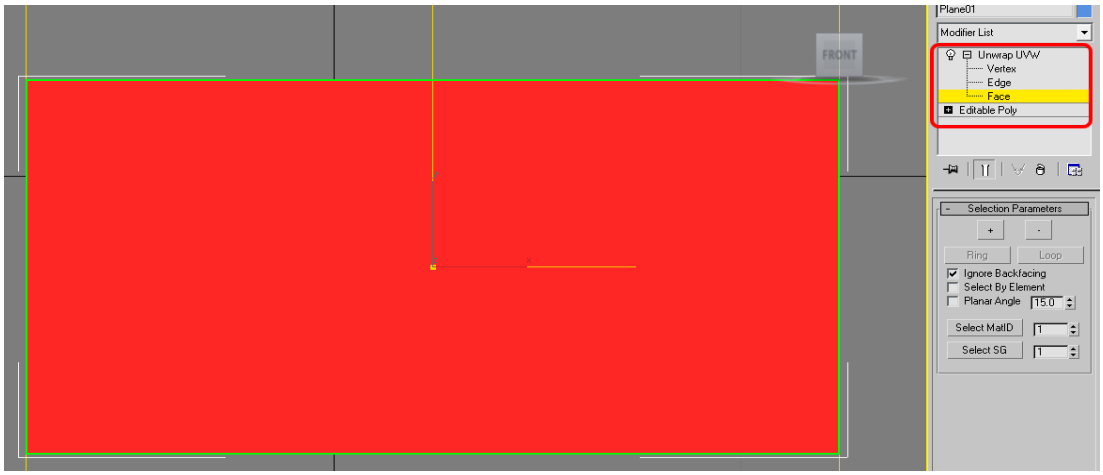




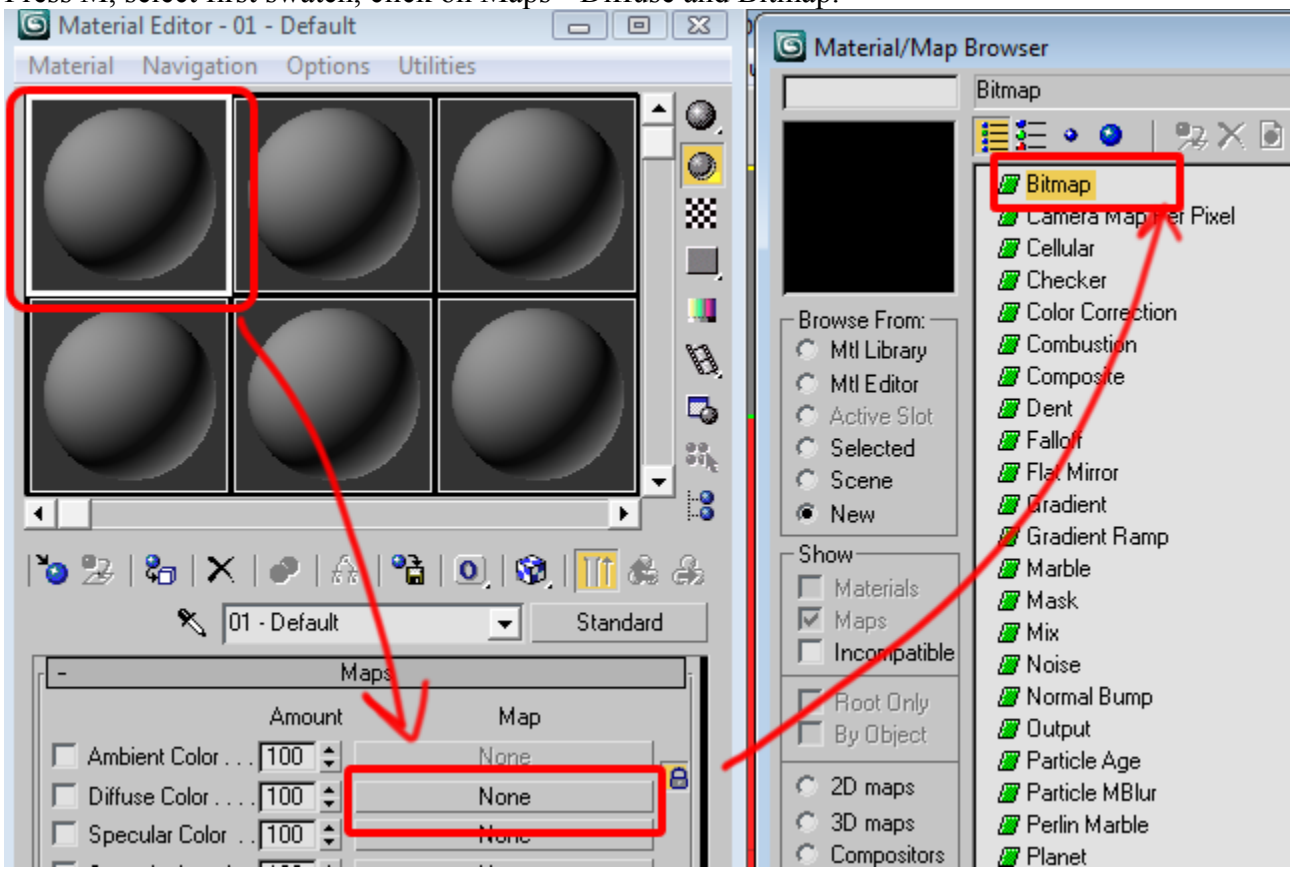


Press F4 and Z

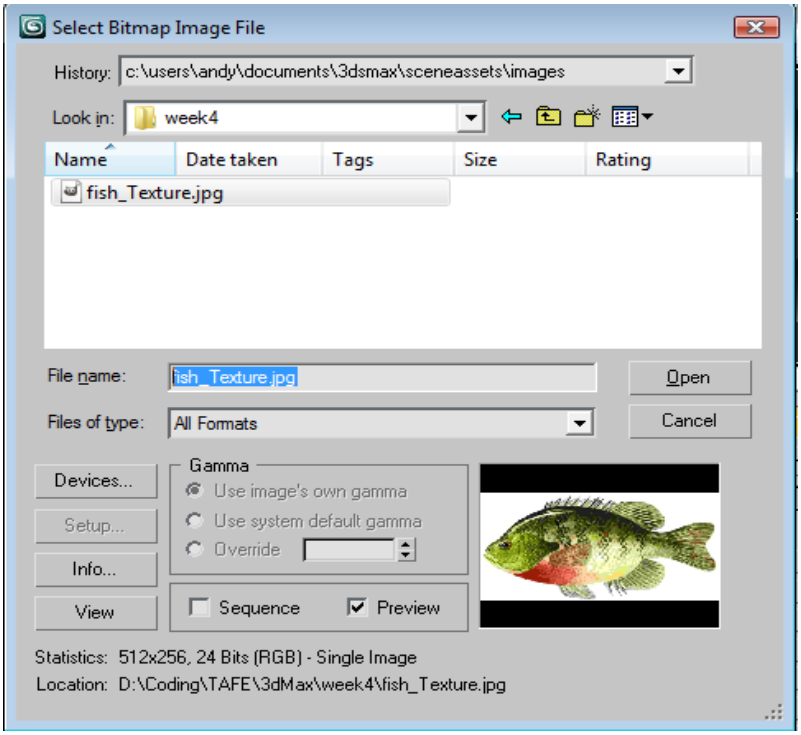




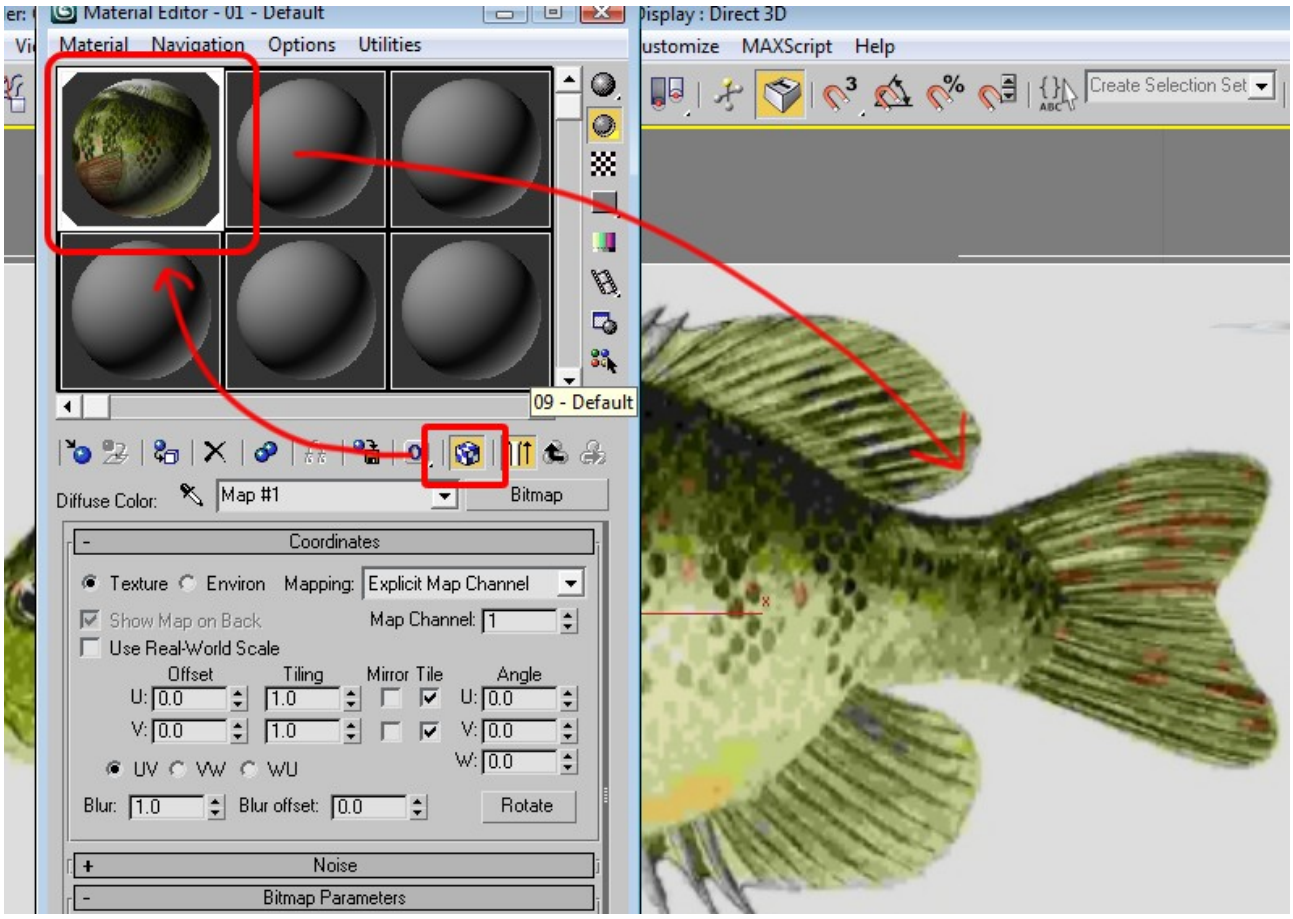
Press M, select first swatch, click on Maps->Diffuse and Bitmap.



Find the texture called “fish_Texture.jpg”



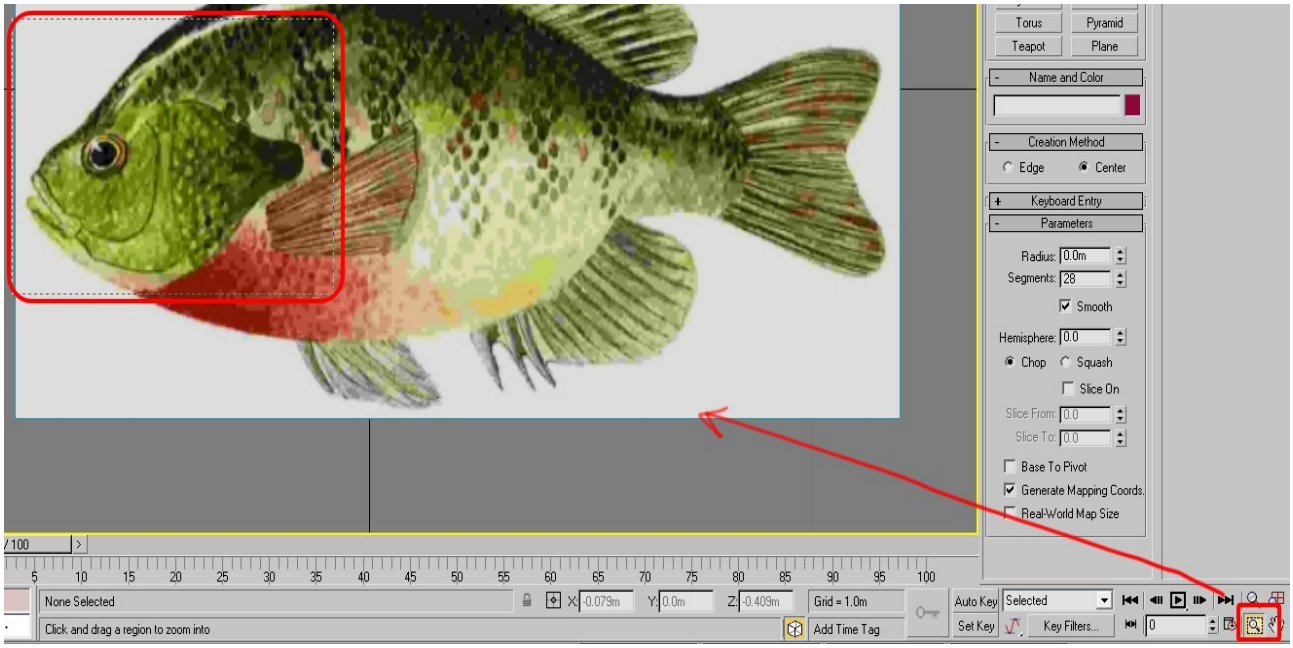
Press the checkerbox (show in viewport). Drag from swatch to rectangle to texture...



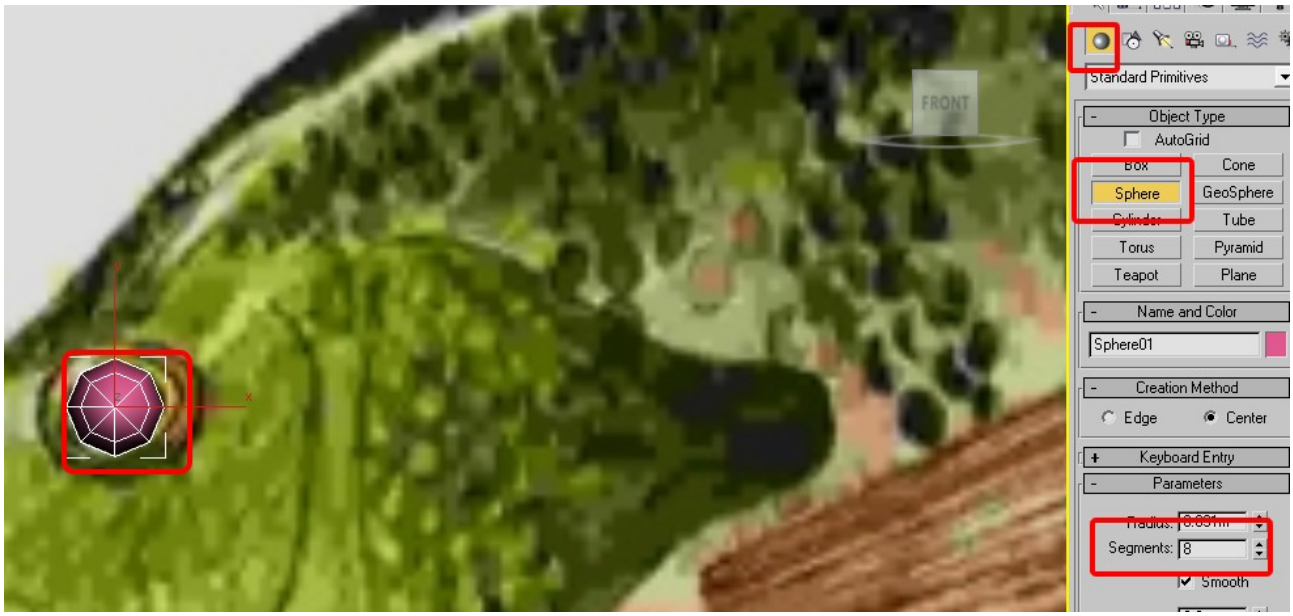
Now you are ready to model!

2. Add the eye

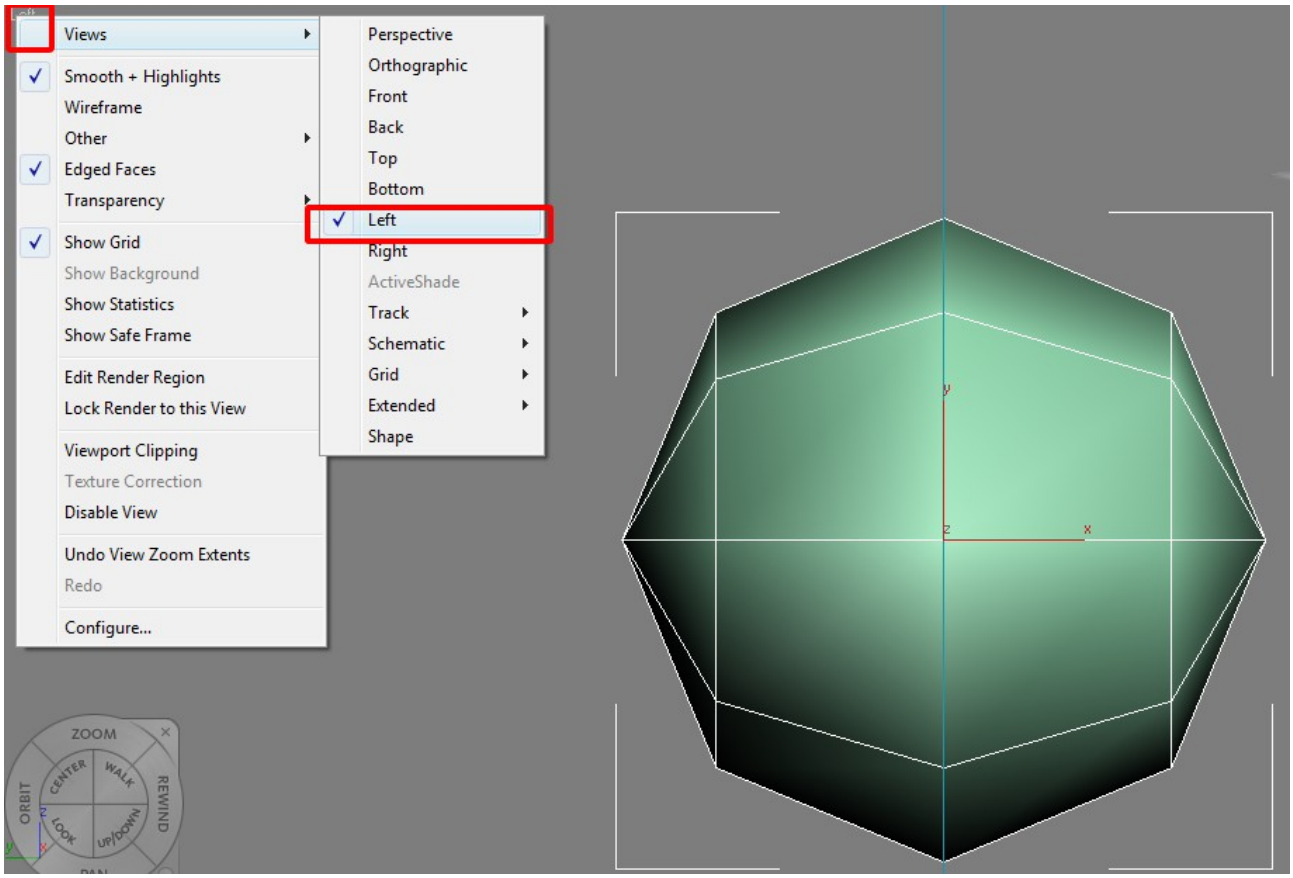
Resize viewport. Click on spyclass mask tool and drag a dotted box around area of interest



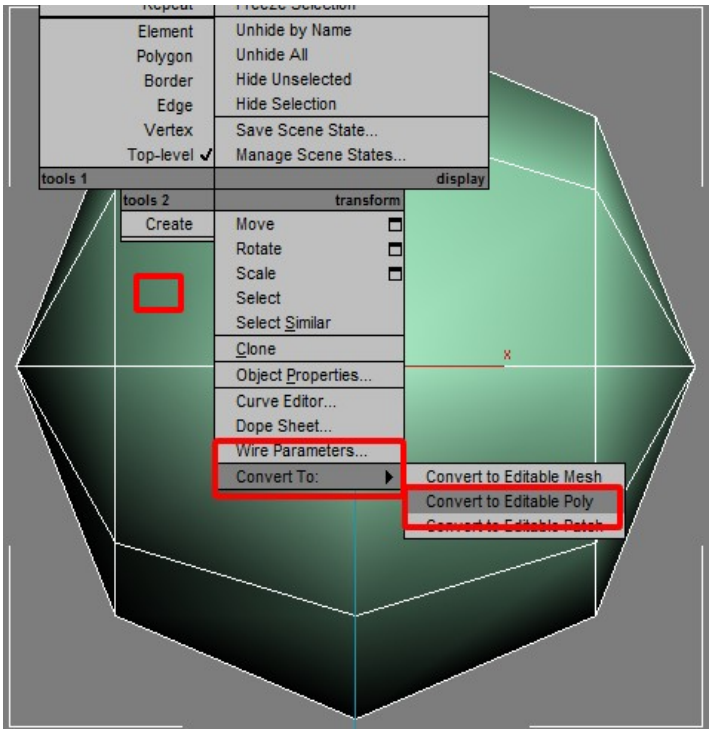
Create a sphere, toggle F4 to see lines, and change to 8 segments.



Then select the Left view. Right click on the viewport → Select views and the Left (if you cant see colour press f3 until you can. If you can't see wireframe press f4 until you can)

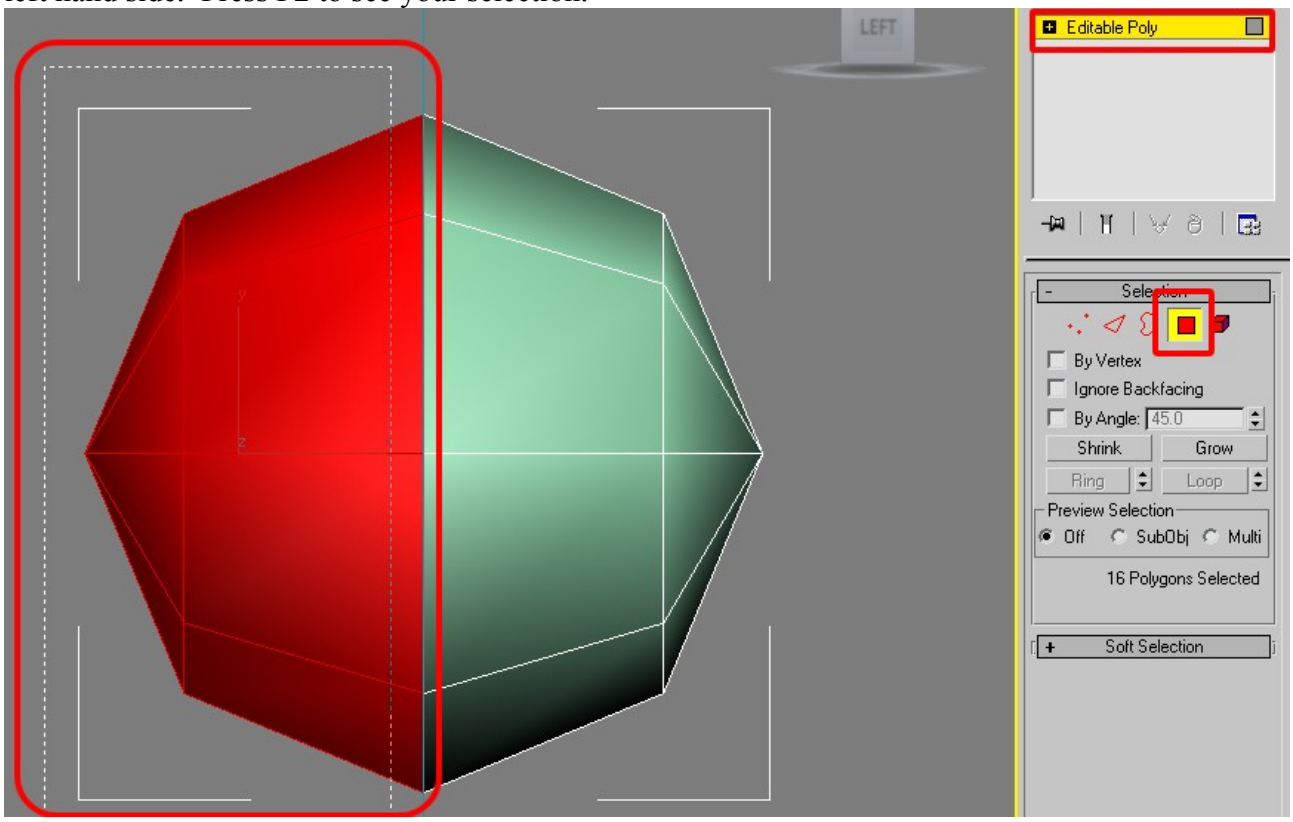


Convert to Editable Poly (right click on object, and select Convert->Convert to Editable Poly)

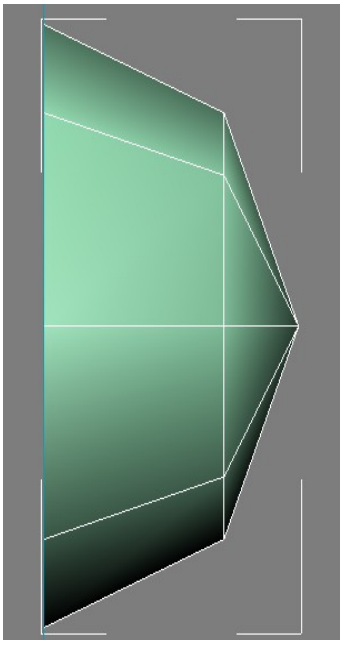


Select half the polys. Click on the Stack, select Polygon mode and click and drag a box around the

left hand side. Press F2 to see your selection.

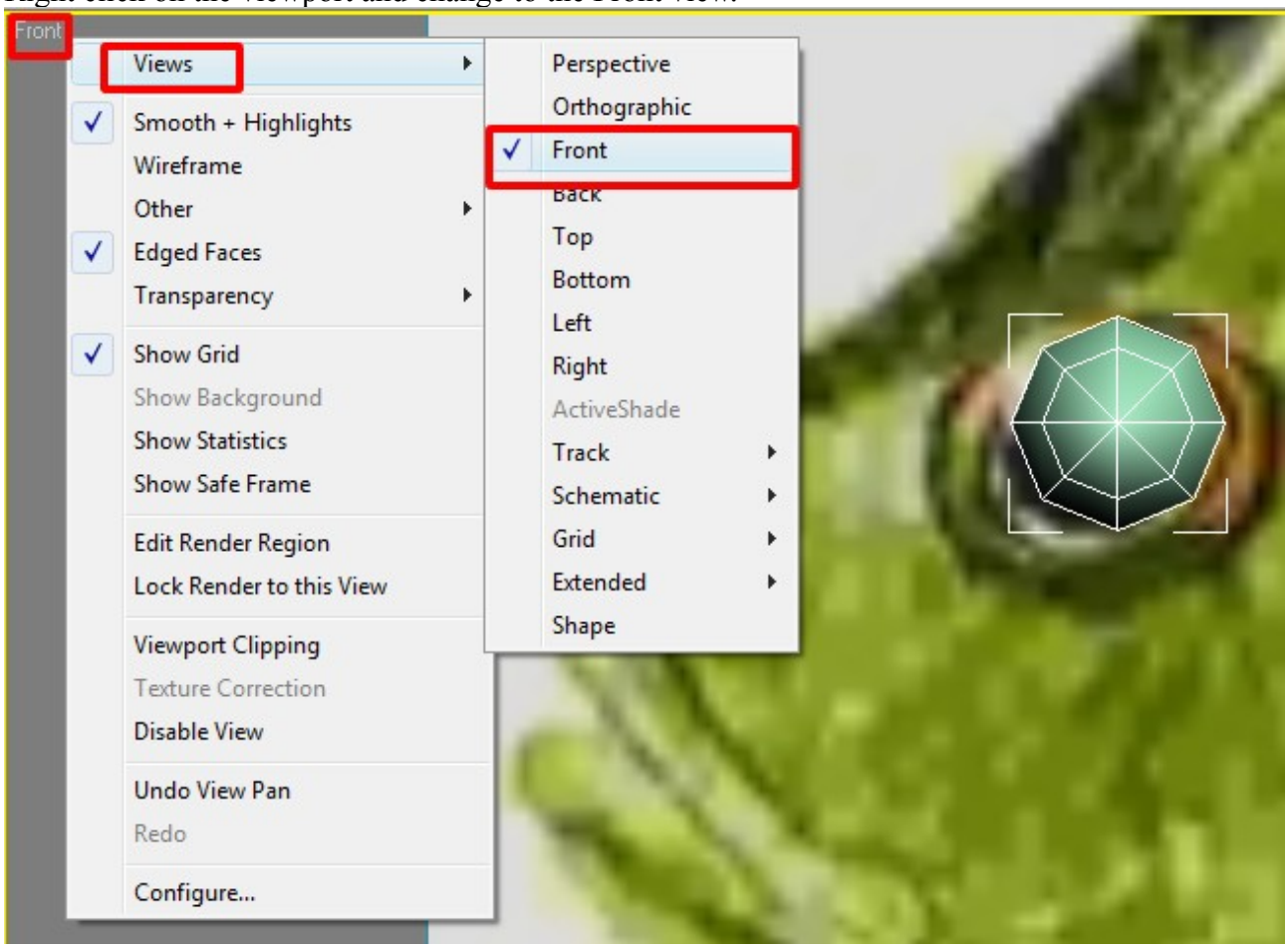


Delete those polys → just press delete

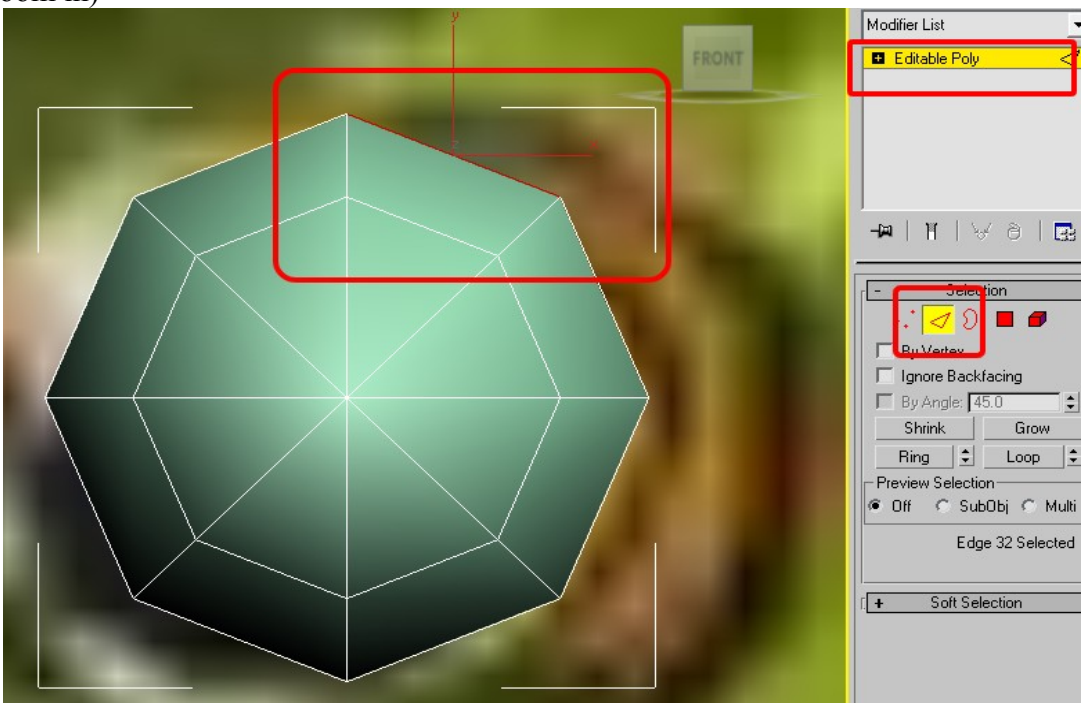


3. Detail out from the eye

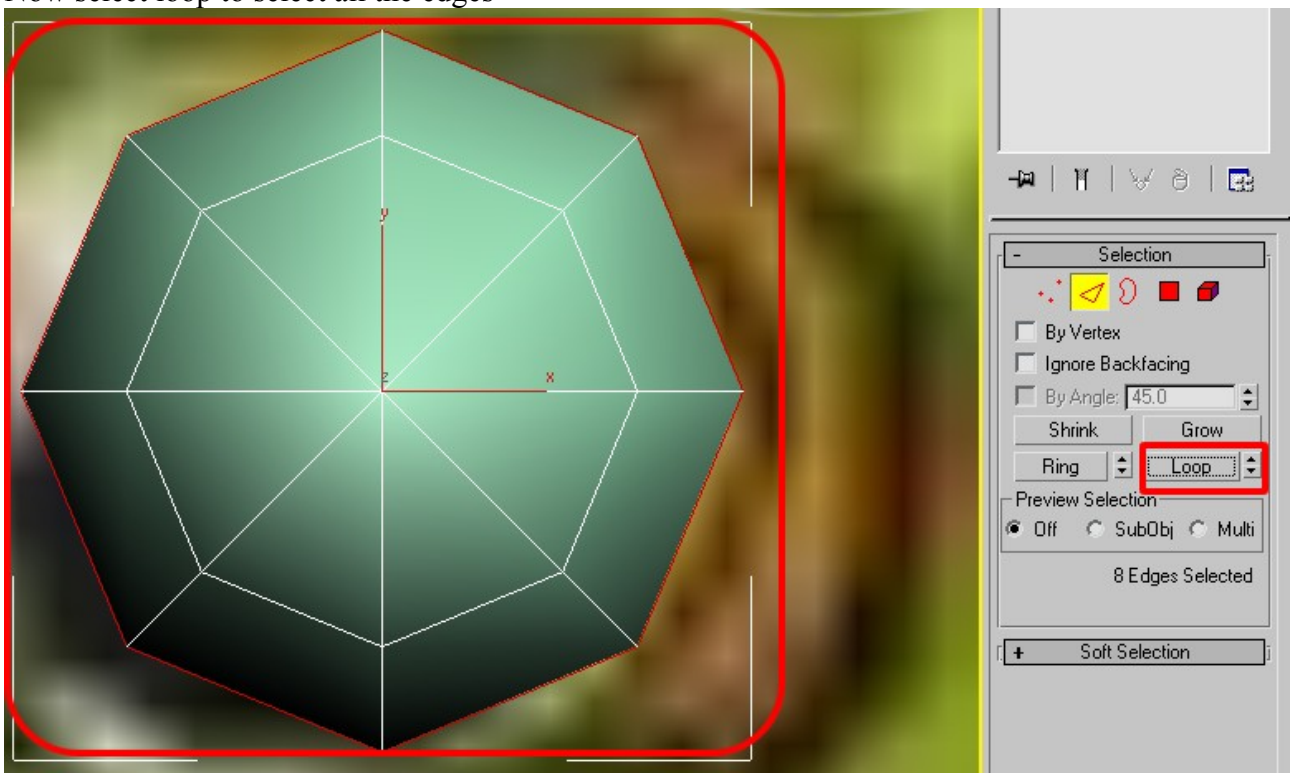
Right click on the viewport and change to the Front view.



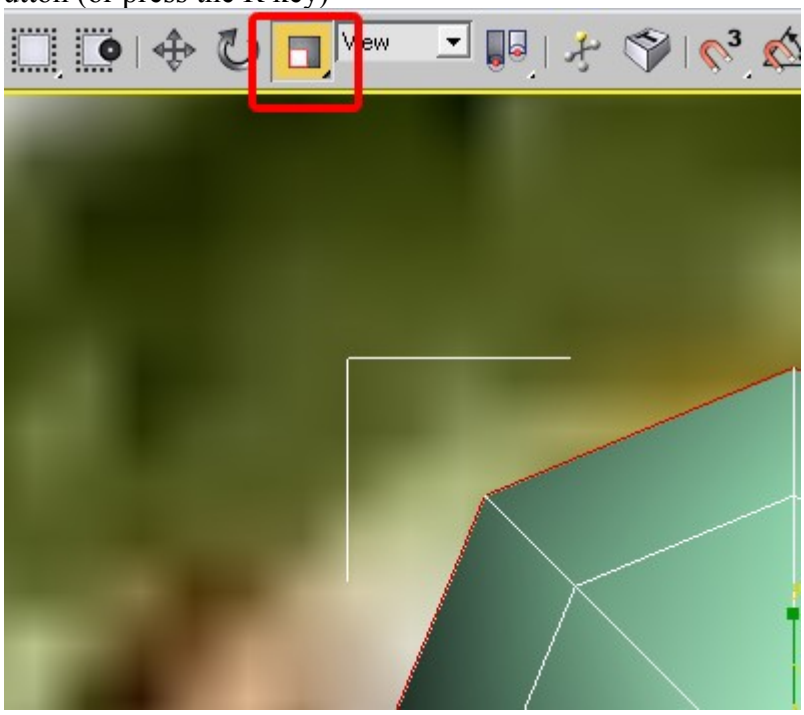
Select edge mode, select an edge (to adjust view you can middle mouse click hold and pan, then roll to zoom in)



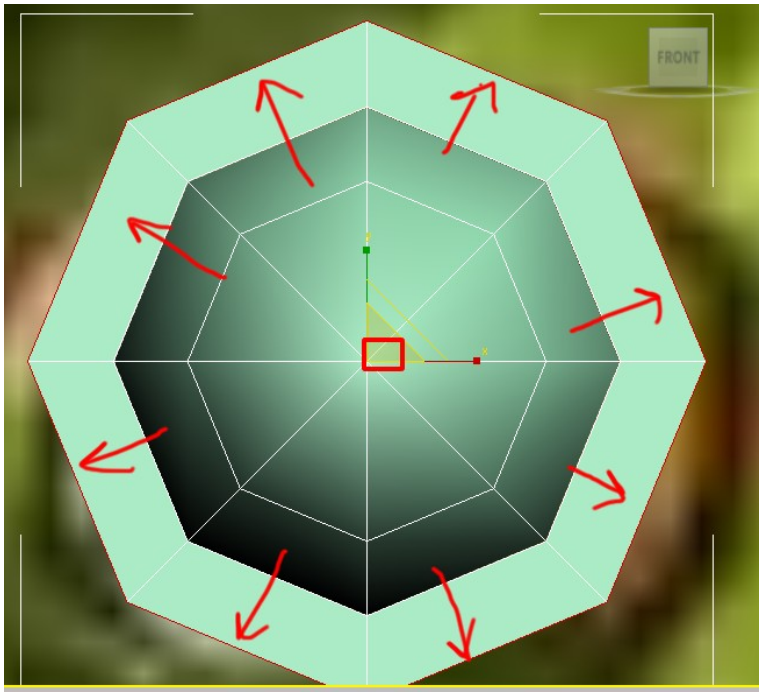
Now select loop to select all the edges



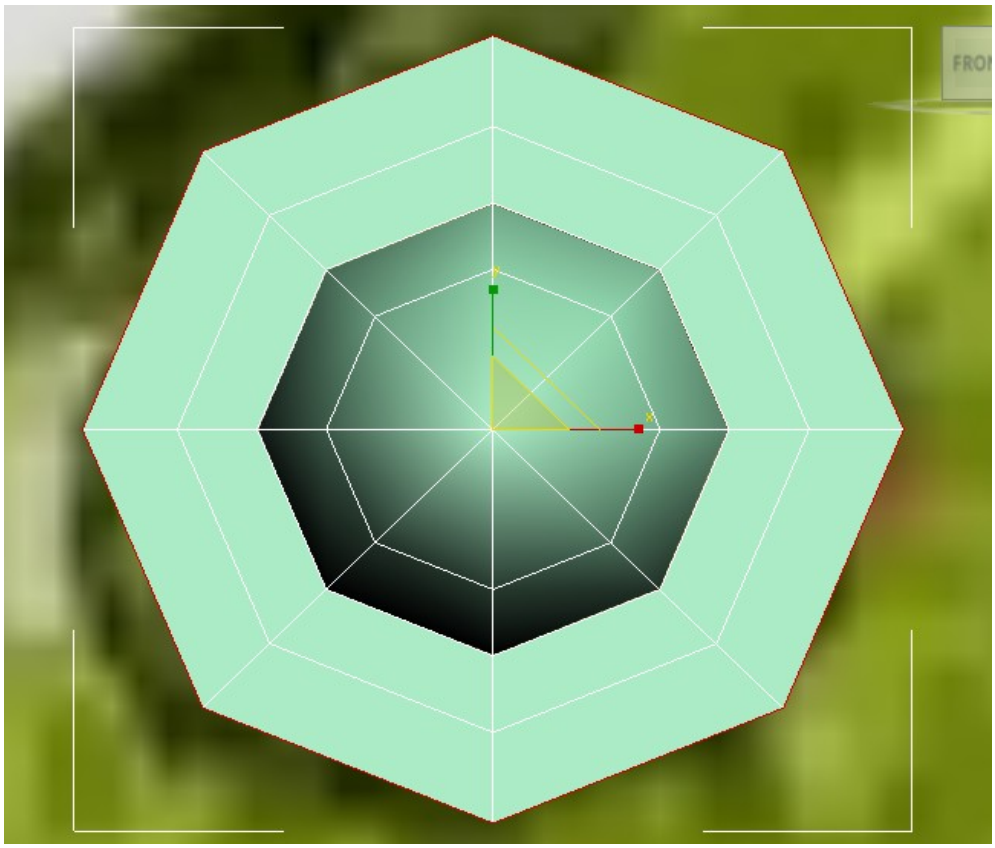
Then select scale button (or press the R key)



Now having the edges selected, hold SHIFT and scale out to make a border.



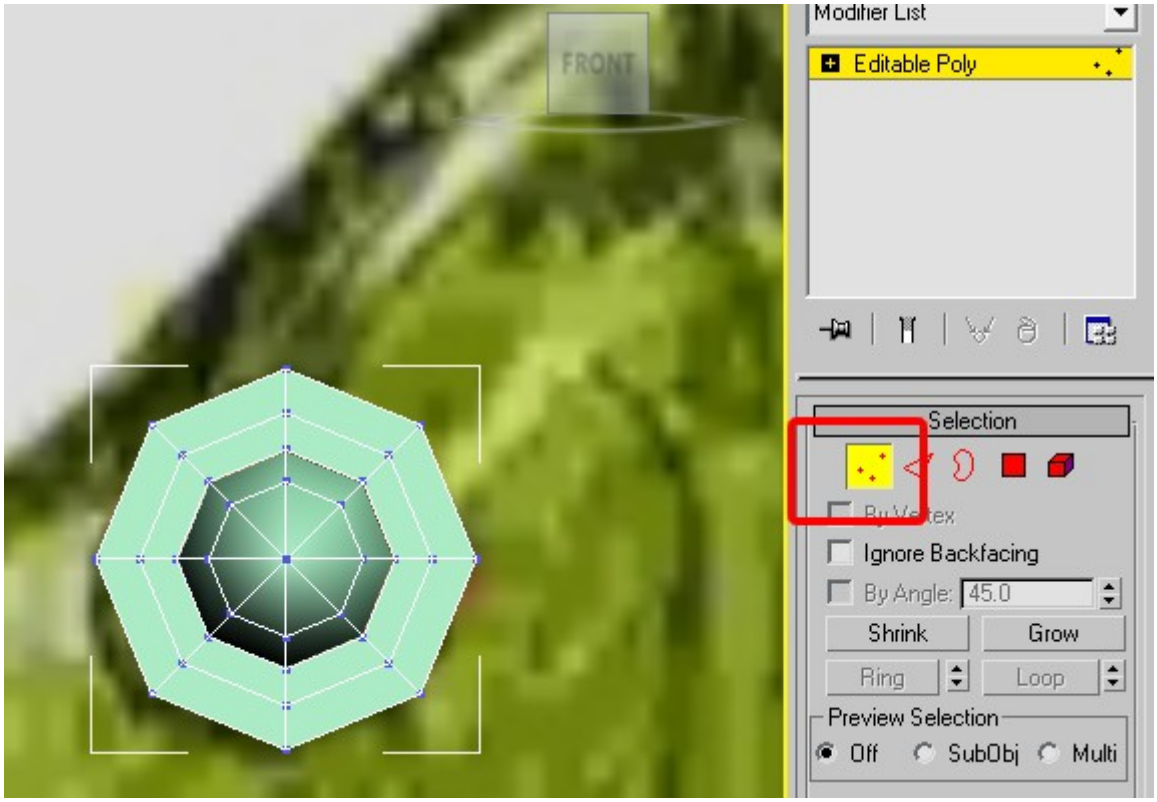
Repeat by holding SHIFT again and scale out.



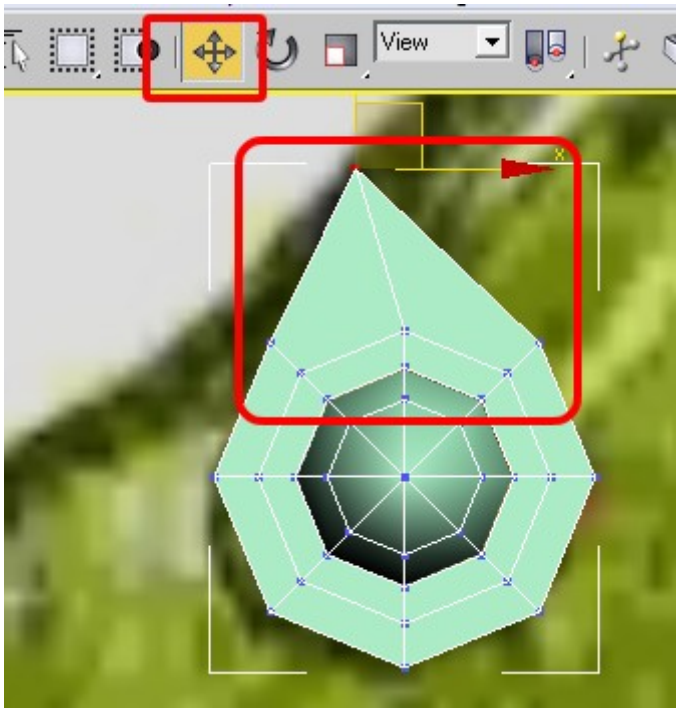
4. Follow the flow of the fish

Zoom out a bit (middle mouse click and roll out)

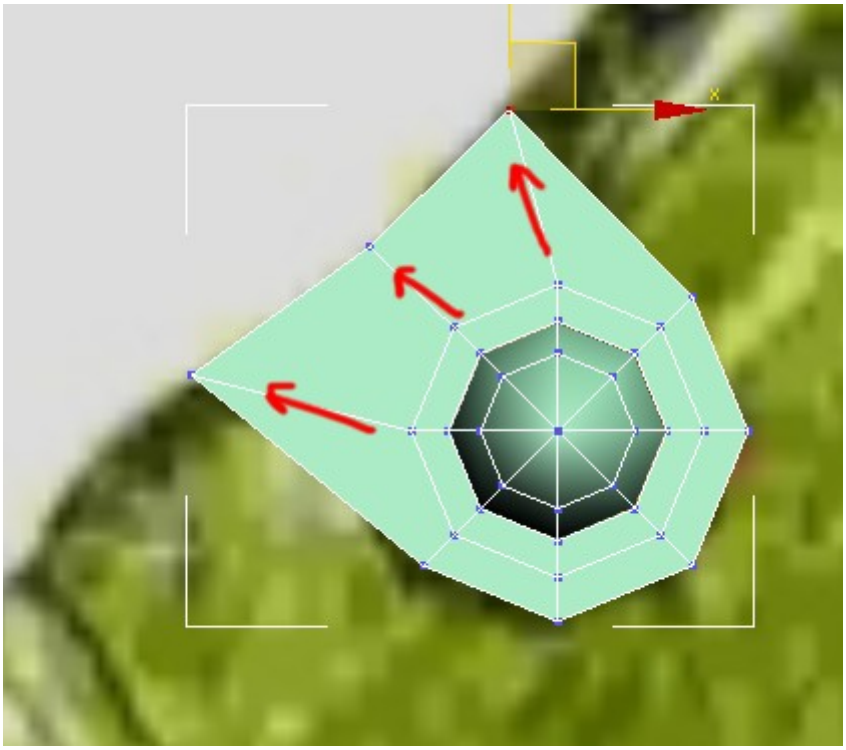
Now select “1” key while still in the stack or select vertices.



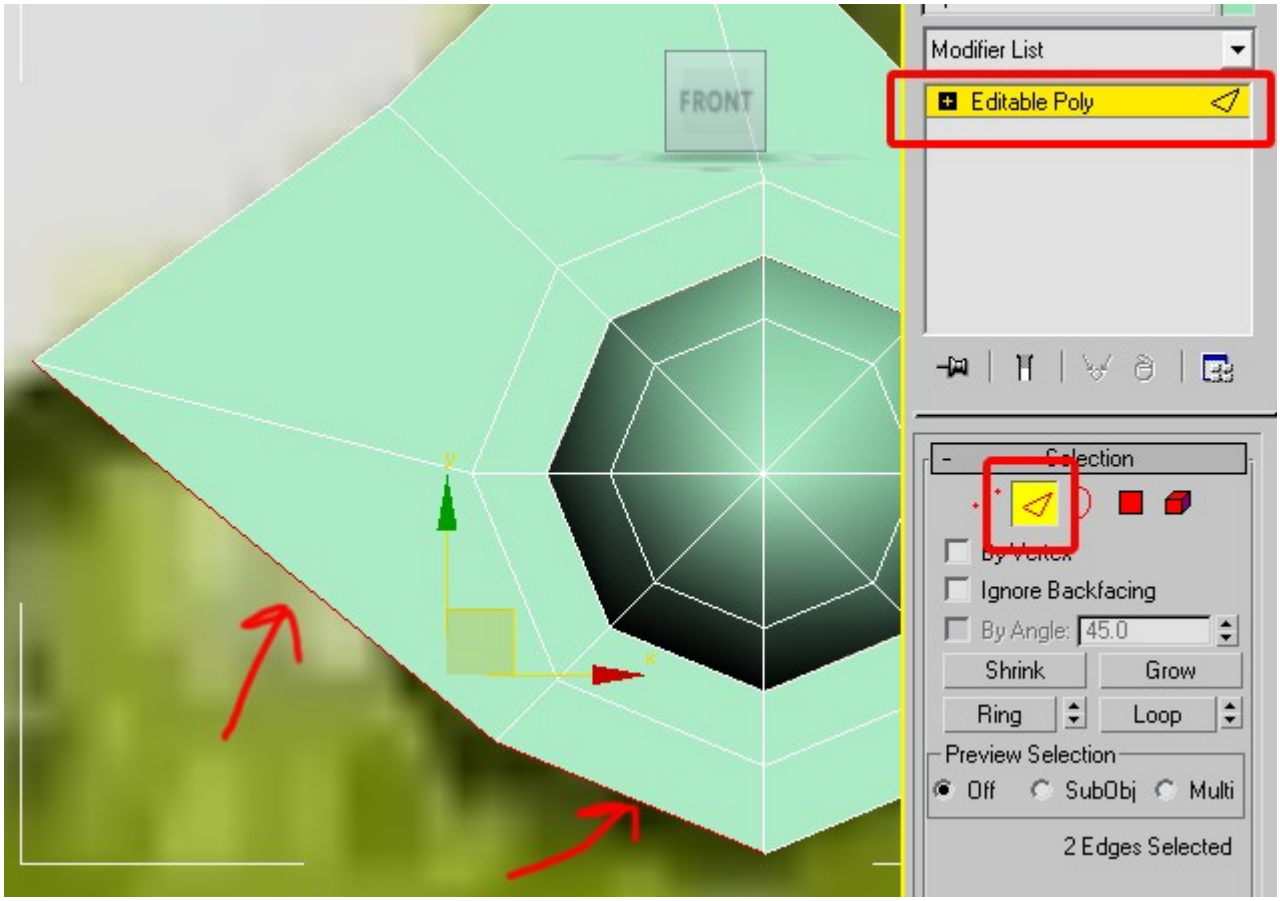
Select the top vertex and select move ('W') then move it to the top of the fish.



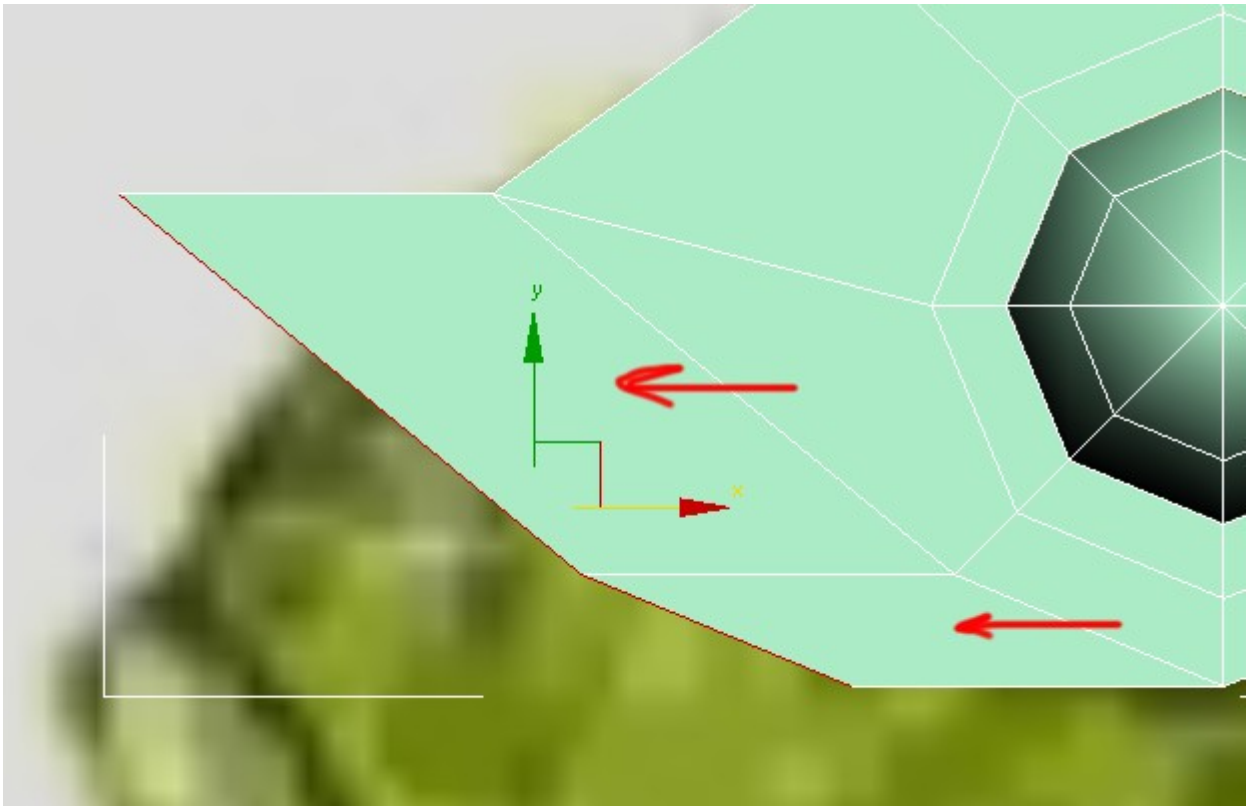
Continue doing this for top edge until you “hug” the top of the fish.



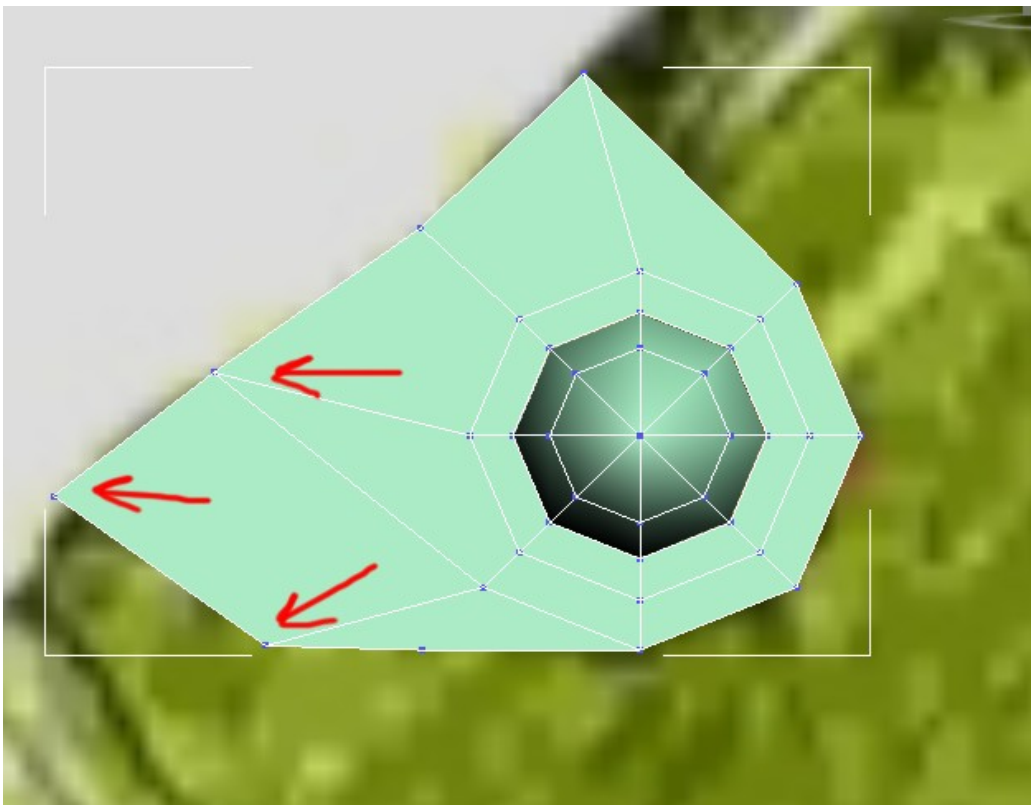
Select “edges” (the “2” key) and select the left edges – there are two, so select one and ctrl + left click the next one.



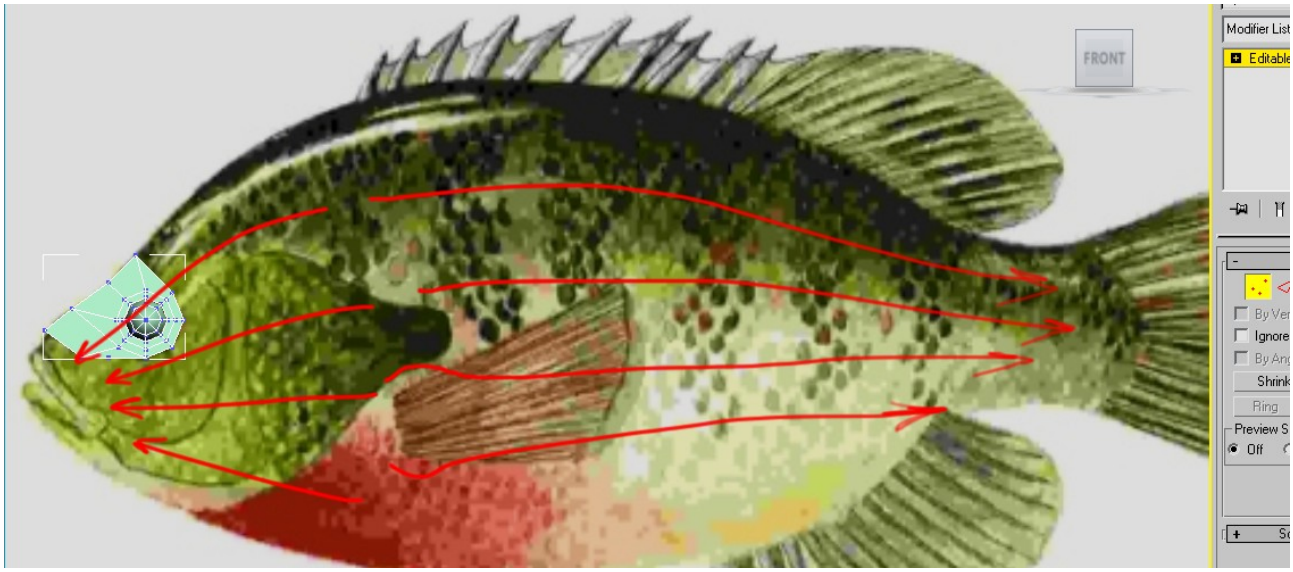
Now select “W” or the move gizmo, and then SHIFT + left click and drag out two more polys.



Then select “1” (vertex mode) and move the verts into position to follow the “flow” of the fish.

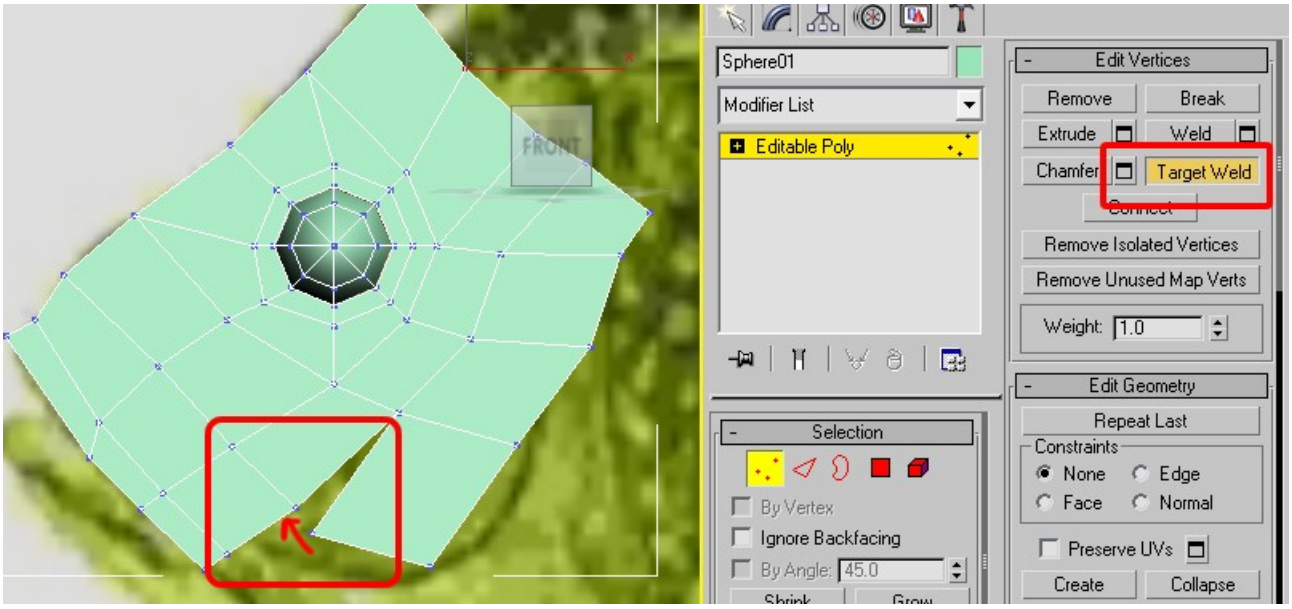


The flow follows the natural lines of motion along the body of the fish – following these lines are important for animation.



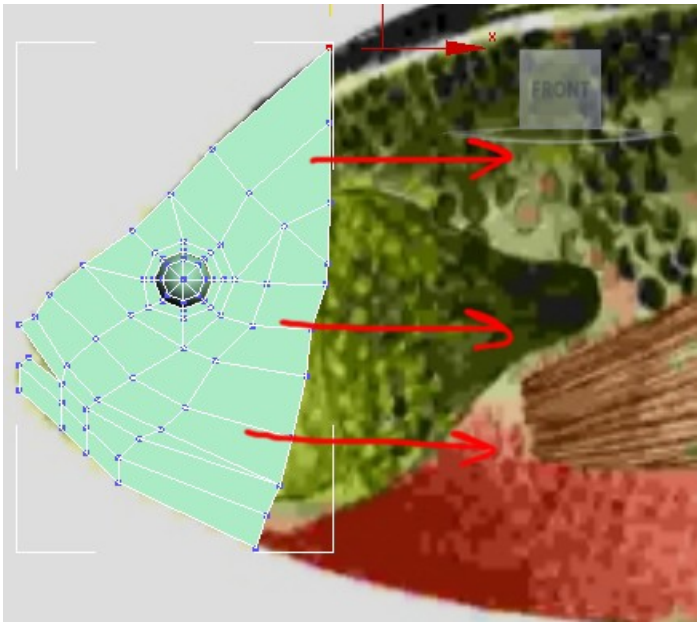
Continue on selecting edges and SHIFT+Left clicking with move and map out the head. Pay particular attention to the lips. (Watch video)

When you get to this bit in the video – you want to Target Weld in vertex mode. Hit Target Weld, then click on the vert and drag to the vert you want weld to.



Now watch the video to complete the head using target welds, and edge loops. Notice how I am adjusting verts to follow the flow.

Once you have this, it gets easier for a while. We will SHIFT drag edges out on mass.



Select the entire left edge shift drag, and tweak with vertex positions as in the next video. I use scale to make the edges follow the shape of the fish.

VIDEO TUT SECTION

Now that you have learned the techniques it's time to speed up and watch how I create the rest of the fish, texture map it and add bones to animate it.

(Head_EdgeModelling1.avi)
In the video I get to a point where I spend a few moment selecting edges by mistake. To select the far edge if unselected, left click and drag a box around all the edges. All the adjacent edges get selected, so ALT-Left click and drag a box around those edges to deselect them.

(Head_EdgeModelling2_TargetWelding.avi)
Eventually I want to go back and target weld some needless points, as in the next video.

(Head_EdgeModelling3_ShiftDragEdges.avi)
Finally I will finish off the body in the next video using edges and SHIFT dragging, then scale

(Head_EdgeModelling4_TargetWeld_Cleanup.avi)
Next I go back and remove needless verts using target weld – I follow the flow of the fish.

(Head_EdgeModelling5_FinishTheBody.avi)
In this video I clean up the tail section to finish off the body of the fish.

(Head_EdgeModelling6_ThickenBody.avi)
(Head_EdgeModelling7_ThickenBody2.avi)
Thicken the body. I start in the middle, using the left view to go through and add thickness to the fish in two passes, first from the middle to the front then in reverse.

(Head_EdgeModelling8_PrepFinPlacement.avi)
In this video I prep the placement of verts for fins to be extuded.

(Head_EdgeModelling8B_AddFins.avi)
Then I add them using edge selection and shift dragging for extrude out edges to make new polys.

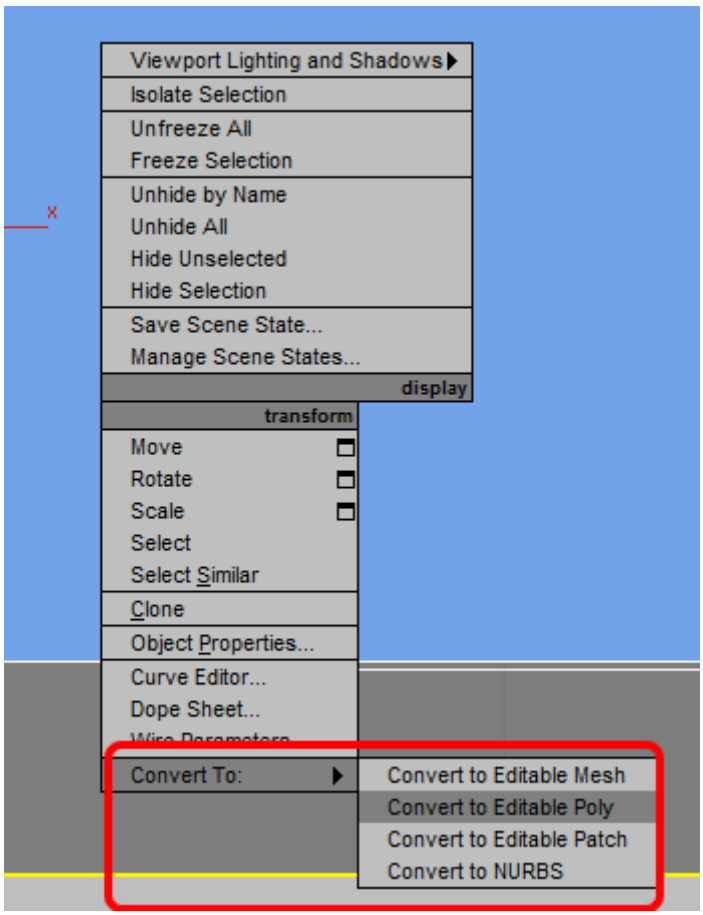
(Head_EdgeModelling9_Texture.avi)
I use a UVW Map to quickly planar map the fish, then using the map gizmo I scale and move to make it fit.

(Head_EdgeModelling9B_Mirror.avi)
Then using the mirror modifier in the next video I select the fish, add the mirror modifier as a copy and mirror the shape on the Z axis. Finally I attach the two meshes together and the texture mapping by collapsing the stack.

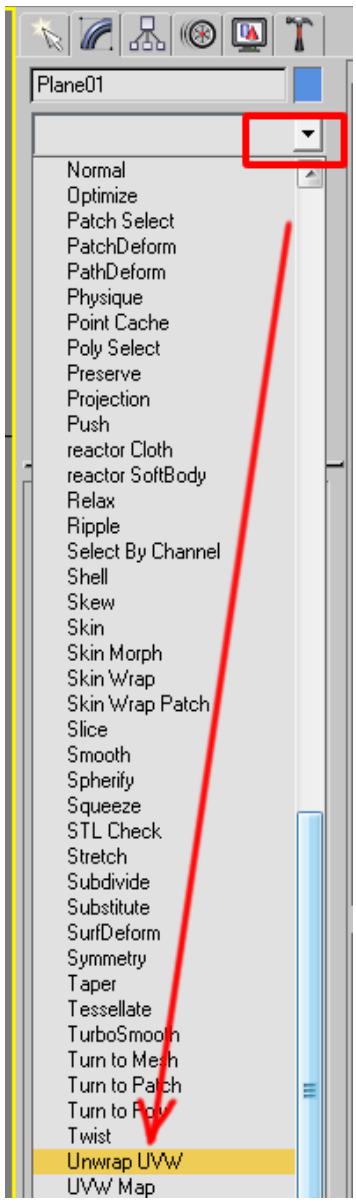
(Head_EdgeModelling10_Bones.avi)
Adding the bones, I draw bones through the fish, then add a skin modifer to attach the bones. Once the bones are attached to the fish I can grab the bones to animate it.

Extended Knowledge (Unwrap UVW)

Right click - > Convert to editable poly



Add UVW Mapping



Select Unwrap UVW in stack and expand. Select Face, click on Face and toggle F2 until plane is red