**Project 1 Building an Abstract Space: Materials**

Your first project is to build a space out of primitive shapes, shapes you can sculpt with Blender, colors, textures, sounds and light. It will last 30 to 60 seconds and consist of a camera fly through.

By now you should be starting to have an idea of what your space will be called and what it will look like. All the Assets and resources for this scene should be in a single folder. The name of that folder should be 1 (followed by whatever name you give your project).

Create that folder now.

Create a new Scene and in File / Save As ... 1 followed by whatever name you are giving your project. Save it in the folder you just created.

Today I'll introduce you to the use of Photoshop for creating textures and color. I'll also give you a first look at keyframe animation. On Wednesday, Jim will introduce the sculpt tool in Blender. After that we'll continue with materials. The following Monday is a holiday. A week from Wednesday I'll show you how to edit sound with audacity and extend what you know about animation. You're project will be due soon after that.

This may take longer, depending on how fast the class moves.

1. Look at References and open each
2. Create Objects to texture
3. Create a Set of Textures
4. Set the lighting
5. Using Photoshop Filters to give the surface texture
6. Using Photoshop to Isolate part of an image

A cutout is a materials with holes in it, for example a chain link fence. You making cutout by creating an image with an alpha channel. Then you remove the part of the channel you want to pass through.

1. Duplicate the 512 PS file and call it **Cutout Simple**
2. Open it
3. In Photoshop
   1. Select Finding Nemo
   2. With the shift key down,
   3. Use the Marque selection tool to select a square containing the image you are interested in.
   4. Paste it into the Cutout Simple file
   5. Using the quick select tool, select the part of the image you want to appear in unity
   6. Leaving that area selected, go to the alpha channel
   7. Using the paint bucket tool, paint the selected area white (the rest shoul d be black).
   8. Save the file
4. In Unity
   1. Create a material called Cutout simple
   2. Drag the Cutout Simple material you just made to the Albedo box
   3. Create a plane
   4. Drag the material to the plane
   5. Now, select the material and in the inspector set Rendering Mode to Cutout
5. Using Photoshop to Create a Screen (Cutout)

A cutout is a materials with holes in it, for example a chain link fence. You making cutout by creating an image with an alpha channel. Then you remove the part of the channel you want to pass through.

1. Duplicate the 512 PS file and call it **Cutout Screen**
2. Open it
3. In Photoshop
   1. Select Finding Nemo
   2. Pick the color you want the screen to be
   3. Paint the entire surface that color
   4. Select the Alpha Channel
   5. Select Filter Galery
   6. Select Texturizer
   7. Select Sandstone
   8. Set relief to its max value
   9. Set scaling to 100
   10. Click OK
   11. Save the file
4. In Unity
   1. Create a material called Cutout Screen
   2. Drag the Cutout screen material you just made to the Albedo box
   3. Create a plane
   4. Drag the material to the plane
   5. Now, select the material and in the inspector set Rendering Mode to Cutout
5. Use Photoshop to make a repeating pattern
   1. put the image in a Photoshop file of 256 squared
   2. Copy and delete it
   3. Change canvas size to 512 x 512
   4. Paste the image in lower left corner
   5. paste again (makes a new layer)
   6. Select image and
      1. move its left handle till it reaches right edge of canvas
      2. move right handle till it reaches right edge of first image
   7. Merge layers
   8. Select the whole image and paste it
      1. move bottom handle till it reaches top of the image
      2. Move top handle till it reaches the top of the first image
6. Making Sprites

A Sprite is a 2D image that can be viewed from both sides. This is not a material and can be put into the scene as a gameObject.

1. In Photoshop
   1. Background must be transparent
   2. Must have sides that are a power of 2
   3. Any image will do, but it cannot cover the entire canvas.
      1. Try with shape: circle
2. In Unity
   1. In Import Settings, set the Texture Type to **Sprite 2D and UI**
   2. Drag the sprite into the scene