1. **Justify development choices for your 3D scene**. Think about why you chose your selected objects. Also consider how you were able to program for the required functionality.

I selected objects that I have in my house. I have a small reading area in a spare room that I’ve made cozy and have some sentimental items. First, a coffee mug from my dad. Second, a model of Saturn that was a gift from my husband when I first started working in aerospace. Since I keep those two items in the nook (and creating the table seemed simple enough), I chose to have those two items in the 3D scene as well. The napkin was just something to use as my fourth object.

The Saturn model was the hardest to create, mainly because I started out trying to make a flower in a vase and changed my mind! I used a torus as the ring around the planet, which I thought was fairly creative. I could have played around with it more to make the torus skinnier, but I thought it looked fine as is. The vase/stand that it’s on could have looked a bit better, but every time I tried to play around with the size ratios, it went a little out of whack so I just kept it how it is now. Using the stained glass texture on the Saturn model allowed for the texture to show through the soft blue light that was being cast from the side. I didn’t want the blue to be too saturated so you couldn’t see the textures, so I kept it pretty light.

1. **Explain how a user can navigate your 3D scene**. Explain how you set up to control the virtual camera for your 3D scene using different input devices.

The user can use the ASWD keys to move just like they would while playing a video game. The E and Q keys move the camera up and down, and the 1 and 2 keys changed the view in and out of orthographic view. Moving your mouse around also moves the camera angle. You’re able to get a pretty good view of the entire 3D landscape with these controls.

1. **Explain the custom functions in your program that you are using to make your code more modular and organized**. Ask yourself, what does the function you developed do and how is it reusable?

Adding in the textures once and calling them each time I wanted to use them kept things very organized. It kept me from having to create the texture every single time I wanted to use the same one again. The same idea carried over to the object materials. I only had to code it in once but could use a single one on as many primitive shapes as I wanted to.

I created the SetUpLights function that worked pretty well! I was able to keep every single light source in one area and have each one separated by a few line breaks. This, and having the light source I have as a color to fulfil the project requirements, kept me very organized.