**Development Choices**

I chose my objects because I wanted to be able to showcase a variety of shapes, textures, and transformations. I knew that there was likely a chance that I wouldn’t be able to fully get common use textures that match what was in my image, I knew that I could get ones that would symbolize the same things. That is why I chose what I did. I say this because certain elements, such as a roll of fabric and the Pokémon items are not always creative commons. However, I knew that there are textures out there that can be used to replicate the same idea.

Doing these things allowed me freedom to show different complex objects, the yarn cone and the coffee cup, but also let me create different materials and the transformations for each item. Because of this, I was able to be a bit more nuanced when it came to programming the scene. Since I was drawing from an image, I was able to see how the lighting would work, where I might need more, such as a basic diffuse lighting, but also a point light. I was able to program all this functionality and tweak it because I had examples to look at, but was also able to see how these things appeared through testing.

**Navigating the Scene**

In terms of navigation, this is done through the use of the keyboard. I was tasked with creating movement through the use of the WASD keys for basic forward and sideways motion and also adding in Q and E for up and down. This allows for the user to move around the scene and get a sense of where everything is.

This does go a bit further in that there is some mouse movement for the input devices. This is because the mouse allows for some slight angle adjustments of the camera, but also the scroll wheel allows for movement to be faster or slower. I will admit that programming that particular part of the code was a bit difficult and there were times when the functionality didn’t seem to exist. This did require the use of the example to see how it was done so it could be properly replicated. It wasn’t an easy task, but one I did eventually accomplish in the end, at least from what I was able to determine.

**Custom Functions**

In many programs, it is important to keep everything modularized. Since we did have many examples in practice before applying the milestones, we could see what was wanted in order to make everything work. This did make things difficult at times, especially in terms of trying to create the lighting. Yet, the use of custom functions allowed for modularizing the code and keeping it from having to be retyped all of the time. This reduced the possibility of errors in the code, but also meant that I could check one function if something didn’t look right instead of multiple places.

The fact is, we could easily reuse this. If one wanted to, it was possible to reuse the code from the assignment and place it into the milestone of the week. I will admit that there could be a few issues, but once those were worked out, mainly creating the opening lines of the function and then putting in the code, it wasn’t hard. That was important because it meant that multiple programs and solutions could use this code without having to rewrite it all of the time. That was an important element in creating this entire scene. Since we were always working one thing at a time from the assignment and the milestone being the same, we could see reusing code in action and make everything easier for us in the end. After all, we only needed to make the modifications that were required for that milestone.