**Project Review**

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CS 330 – Comp Graphic and Visualization

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The following is a short analysis of the selected image (the first image shown beneath the Prompt portion of the assignment rubric, items on a desk) that explains which 3D shapes could be used to re-create the selected 2D image, one object that would need multiple shapes to re-create it, and areas where the image could be simplified in a 3D re-creation.

First, the keyboard can be translated into multiple cubes that represent the keyboard as a whole and each individual key on the keyboard. The pencils can be translated into a cylinder that has a pyramid for its tip and possibly a compressed sphere for the eraser. The mouse can be translated into a compressed sphere. The desk everything is sitting on is a plane. Each piece of paper on the notepad is a plane and its spiral could be multiple torus’s.

One object that would need multiple shapes to re-create would be the coffee cup sitting on a coaster. You would need a cylinder for the coaster with another smaller cylinder for the coffee cup. On its side would be two cubes, one that is inlaid with the other to represent the hollow middle. Also, the keyboard cannot be expressed with one simple rectangular cube. You would have the initial elongated cube for the keyboard and need to create each key with its own compressed cube.

One area that I believe could be simplified in a 3D re-creation might be the notepad. It wouldn’t be necessary to create a bunch of single plains to represent sheets of paper. Instead, a couple of rectangular cubes could be used to represent multiple sheets of paper instead. Also, on the pencils, I do not think it would be necessary to have the compressed sphere for the eraser unless it was significant to show that the eraser had been used. Instead, the pencil could be just one long cylinder with multiple textures applied to it, and the pyramid for the tip.