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CS330

Prof. Rodriguez

**2-3 Milestone One: Project Proposal**

For the final project, I would like to replicate a bathroom scene that focuses on the sink and the mirror cabinet mounted on the wall above the sink. Below are the pictures I get inspired from, as welI as my own sketch of the layout I’m planning to recreate. In my sketch, I intentionally used mostly **rounded and straight lines** to help visualize how each object can be broken down into **basic 3D shapes** like cylinders, boxes, cones, and planes.

A toothbrush and toothpaste on a sink

AI-generated content may be incorrect.

A drawing of a bathroom sink

AI-generated content may be incorrect. A drawing of a faucet

AI-generated content may be incorrect.

3D shapes used in objects:

1. Toothpaste: Tapered cylinder, torus, cylinder

I chose to model the toothpaste standing upside down on the sink, which gives it the shape of a tapered cylinder. The cap can be created using a torus placed around the top of a short cylinder, which will represent the actual cap. If I have extra time, I may add triangles along the body of the toothpaste to simulate areas that appear to have been squeezed in the past, making it more realistic. This object is a great choice because it combines several different geometric shapes.

1. Sink: torus, sphere, cylinder, cube

The bathroom sink adds some complexity to the scene, which I find makes it more interesting. I plan to use a sphere sliced in half for the main basin, with a torus placed around the rim to mimic the curved edge of the sink. The faucet will be built using a couple of cylinders, a small cube, and a box. I think this will be the most challenging piece, but I'm excited to attempt modeling it.

1. Toothbrush: cone, box

For the toothbrush, I plan to model the handle using a simple box shape. To create the bristles, I will use a series of tiny cones placed closely together, angling some of them slightly outward to simulate an older, used brush head. I believe this part will be enjoyable to work on, as it adds detail and texture to the scene.

1. Mirror cabinet: plane, cylinder, box

The mirror cabinet is one of the simpler objects in the scene. It primarily uses basic shapes like boxes and planes. A cylinder will be used as a small handle that allows for opening the cabinet. My main concern is getting the lighting right on the mirror surface. I’m treating this as a stretch goal; if I run out of time, I'll keep it simple and settle for a basic cabinet without reflective effects.