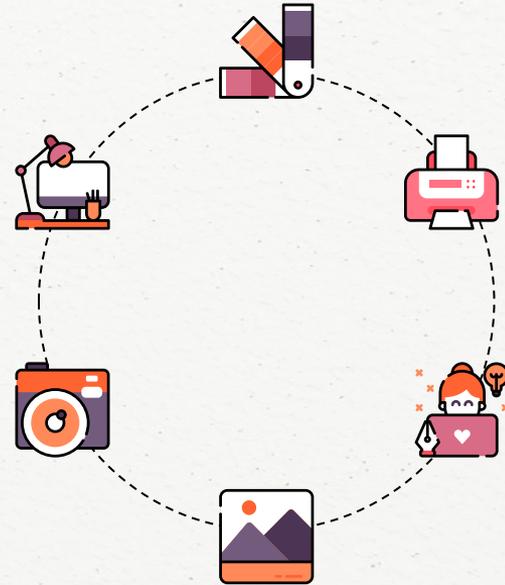
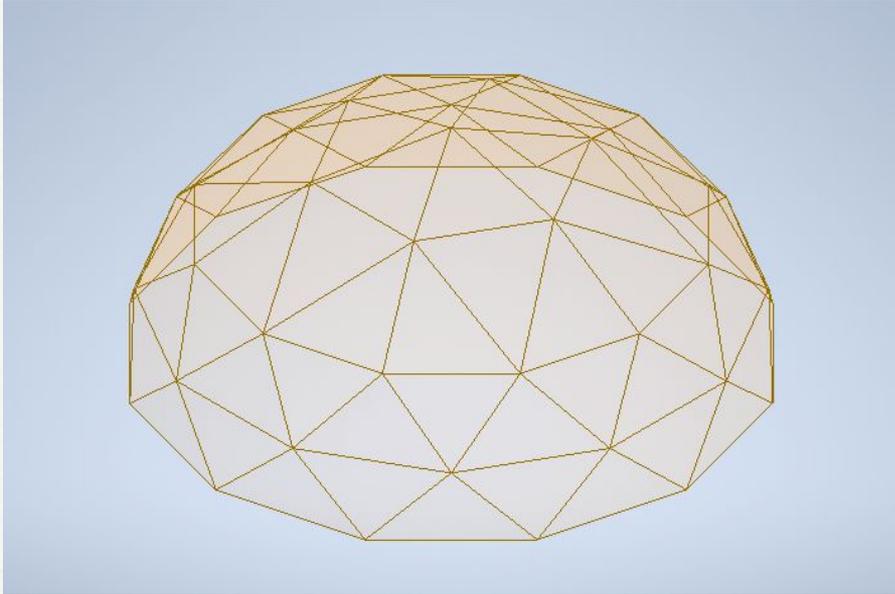


Design Process

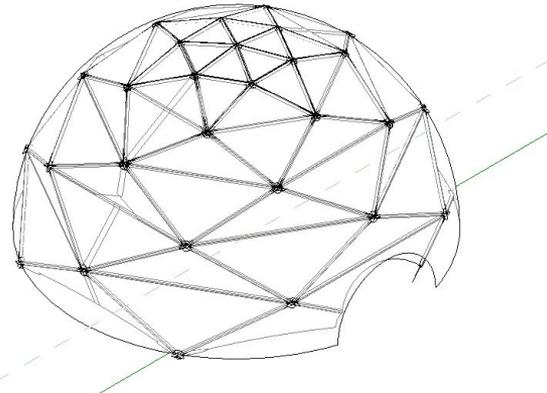
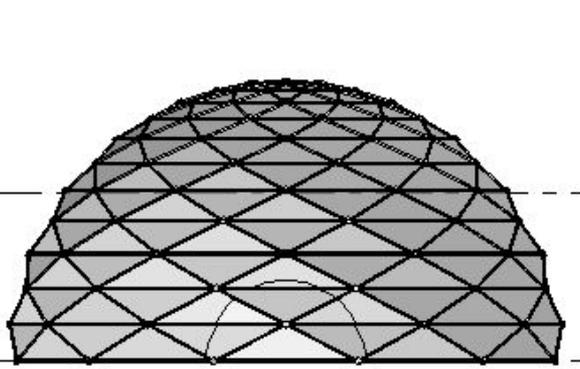


First Trial



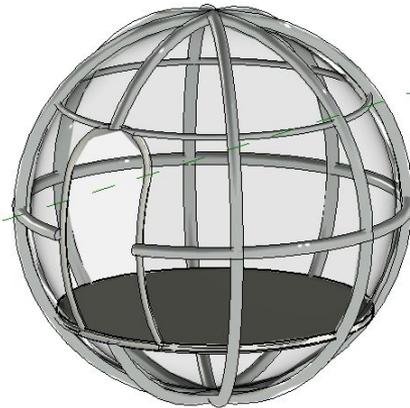
Our first idea was to use Inventor to create the dome. We created 3 different planes to create the dome shape and gradually shrank the diameter of the circle. We connected the 4 layers together by creating a triangular pattern and used the patch command to fill in the gaps. We then used the circular pattern command to fill in the total dome. However, throughout the process we had trouble getting proper views and editing the correct plane. Even though we made one and turned out nice, after talking with our teacher she informed us that Revit would probably be easier to use to create an 3D dome. Using revit would laos let us render enescape to add a more realistic environment.

Second Trial



For the second trial we utilized Revit to create the central dome. We first created a triangular pattern material and then used the revolve command on an arc to get the dome itself. After creating the dome we used the “Divide Surface” command to separate it into the triangles. We experimented with the amount of sections varying from 12-6 and decided that the 6 looked the best. After we decided on the sections we uploaded the material we created earlier to make the dome. Finally, we changed the material for the fill and frame to be glass and aluminium. Even though we were content with the design we thought we could create an more aesthetically pleasing one. After some more research we came up with an new design

Third Trial



For our third and final trial, we first created an sphere by using the revolve command on an arc and using the extrusion and sweep command we created the rings around the sphere. We made 3 going horizontally and 6 going around the y-axis. Next we made the holes in the sphere at the top by using the extrusion command and sweep. Additionally, we used the two commands again to create the doorways to connect to the other bubbles. We had trouble understanding the sweep and extrusion combo to create the gaps that would match the shape of the sphere but after putting in some work, we got the hang of it. Finally, we added in the floor of the dome.

Final Design

