Final project proposal: the tide effect simulation

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My idea for the final project is to simulate the high tide effect of sea water. Any vertices below a certain threshold are sand, identified as color sand, and its alpha value will be 1. Vertices with a y value higher than this threshold will become water, and the alpha value will be lower, resulting in a sense of transparency. The y value threshold will vary across the seafloor, and the approach of doing this will be similar to the pleats effects of project 3. I'll refer to the class notes to do this. Additionally, I'll use noise to perturb the surface of the water, which would make it look normal from every corner in the real world. Since the light will come from different directions. Finally, I'll also make use of glman's timer to simulate the tide animation. Overall, the following knowledge points or functions will be used in this project. The picture below could help to understand.

1.light: uKa, ukd,uKs,uShineness.
2.light position change.
3.frequency noise,amp noise.
4.timer to simulate the tide wave.