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**a.**

The basic idea of snowboa.rd is to create an infographic that lets beginner->casual level snowboarders find a board that suits their riding style and preferences. By breaking down components of the snowboard and explaining how they affect your experience, I hope to inform viewers what they should look for in their new, first snowboard.

This information conveyed within my websites goes into the intricacies of how each component affects your riding style and what options you can choose from within each component. You can also learn more about what type of board you should get through a quiz, but the quiz was bit difficult to implement with the time I had.

By showing this information in a 3D model, it's easy to visualize where each component exists on a board and why it creates the impact that it does. I hope to make a smoother visualization by continuing to work on it throughout my winter break. I also created a terrain viewer on my landing page to create more engagement and follow the mountainous atmosphere behind snowboarding

**b.**

- Enter **LANDING** page // can play around with the generated terrain in the background by using hovering the cursor to look left and right + holding right click to move backward (auto moves forward)
- Can enter **ABOUT** or **EXPLORE** // click on about button is on bottom left + click on explore button is in center of page
    - **ABOUT** is mostly static, contains a **BACK** button and logo button to go back to **LANDING**
    - **EXPLORE** takes you to the **HOME** page
- **HOME** page is a 3d model of a snowboard you can view and the different components of a snowboard // click and drag to view the model in different angles + click on red interactable spheres to see the different components
    - The red interactable spheres show a modal of a description of what the part is and how it affects your snowboarding experience // click out of modal box to exit the info screen and view other components

**c.**

1. External JS library, three.js

2. Allowed me to implement 3D models with ease, so it's easier to view where each component exists on a snowboard rather than looking at multiple pictures. More interactability also forces more engagement from users.
3. Used to implement FBX model into a website. Used to generate terrain for an interactive landing page. Used to view 3D models with a "camera" implemented in the viewer. Added the interactable spheres for each part of the snowboard
4. Adds interactivity throughout the website. Allows for a much easier time for learning where each snowboard component is.

**d.**

I iterated through my HW7 mockups by first building my entire prototype without any of the three.js libraries implemented. This makes it easier for me to visualize the UX of how my website functions before I bring in all the animation and 3D modeling from three.js. I decided to add in the interactable landing page to make it more engaging while also removing the front/side/top/isometric view because I could just add a "camera" in the website to view the model from any direction. Took out the quiz features because I wasn't confident in their ability to accurately give a good recommendation.

**e.**

I experienced challenges with initially finding what the library does and how to use it to its fullest potential, an example being where I didn't realize the mesh/camera have more functions that can be added as long as you modify the three.module.js file. Along with this, I also had trouble figuring out positioning with the camera as it works in a weird way since the camera is angled and the x-y-z axis can vary depending on that. Another challenge I had was implementing the quiz to be catered towards a preference; while the pages are static, I wasn't sure how to organize all the information taken from the quiz and actually suggest a good recommendation. My last challenge was trying to adjust the modal to close by using on-click instead of hover.