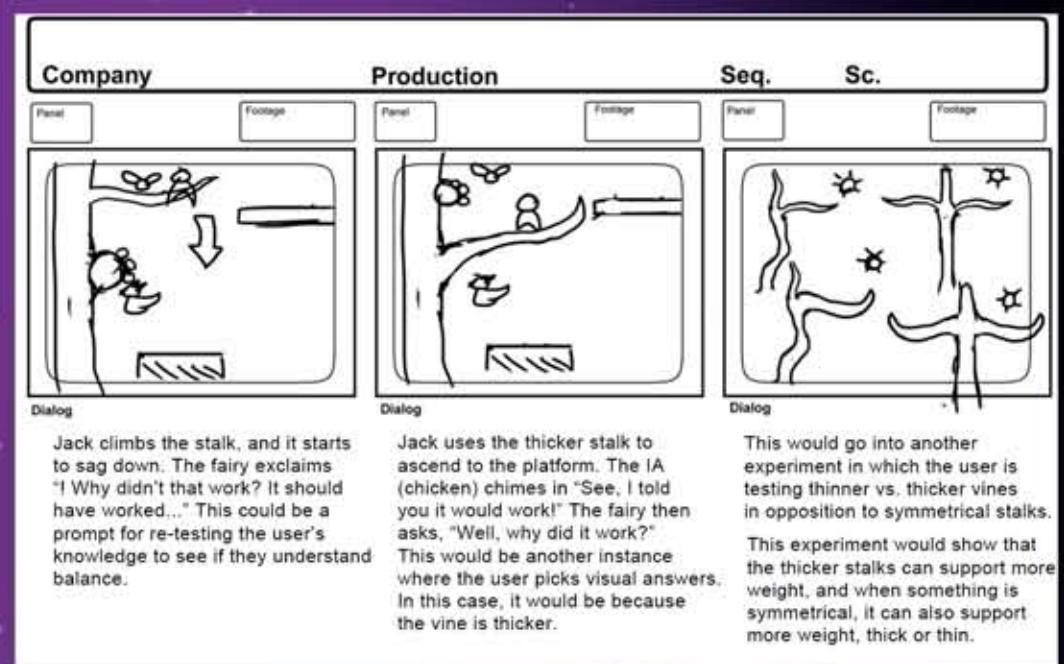
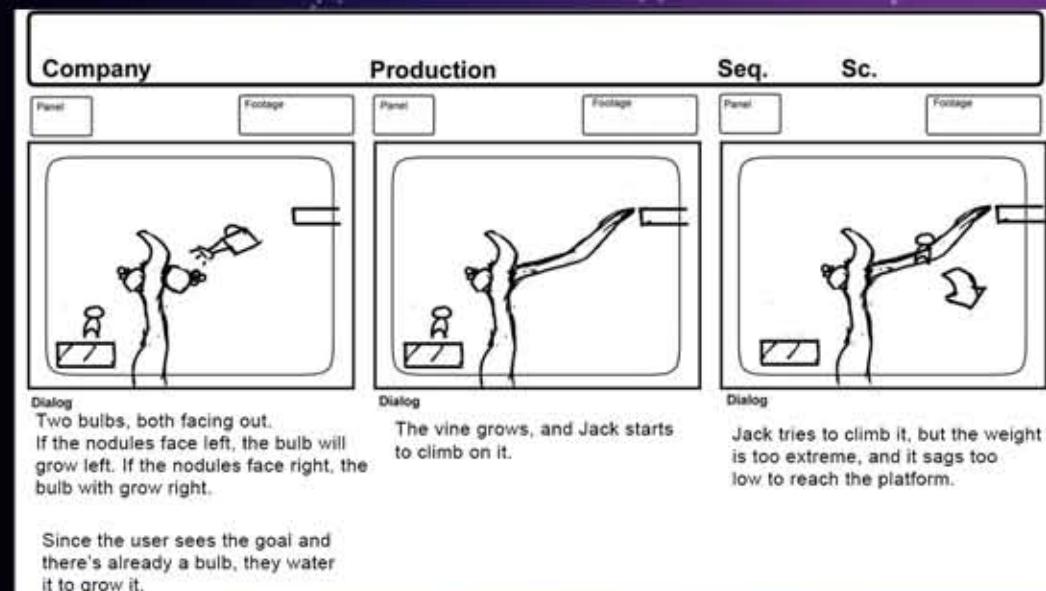


## New Prototype: In Design

As we continue to work on, we have started designing a new game, loosely utilizing the story of Jack and the Beanstalk. This game is primarily focused on teaching the scientific reasoning goals provided to us by our HCII partners. These goals include constructing explanations and designing solutions as well as engaging in argument from evidence. An example of constructing explanations would be explaining to an in-game character why things work or why they happened. An example of engaging in argument would be refuting a hypothesis/decision presented by an in-game character and being able to explicitly state why. By teaching children these skills, they will be more capable of the scientific process and how to experiment with science concepts, whether physics related or not.

Our current design features an in-game character, Jack, that the player must help to reach the castle in the sky. The player is tasked with figuring out how to grow the beanstalk in a way that will allow Jack to progress through the space. Through the game, the player will be given different variables to experiment with, such as thin vines vs. thick vines to help them come up with hypotheses. Once they come up with these hypotheses, they will also be tasked with testing their hypotheses through their own experiments as well as testing other characters' hypothesis through provided experiments. We're working closely with our HCII partners to solidify exactly how the kids will hypothesize as they progress through the game. We had a meeting with them today to review the storyboards and they feel that we're off to a good start and should continue to develop it further with their assistance in regards to helping the kids understand what it means to hypothesize and explain their reasoning. Here are a few of the storyboards that we are in the process of designing.



## Quarters Presentations

Today, we had our quarter presentations. Quarters are held during the 5th week of the semester, which is about 1/4th of the way through the project's cycle. This is a great opportunity to show the process and progress so far and get valuable feedback from the faculty regarding the next eleven weeks.

We received some good feedback regarding our process so far and our future plans. Some of the concerns were that since we are aiming to succeed at a wide range of tasks, playtesting often as possible is very crucial. This is definitely a valid concern and we are looking into ways of getting as much useful playtest sessions as possible, especially with our demographic. Other comments were in regards to the design of the game. Games that increase in difficulty, while frustrating, can make a player want to play more, even at this young of an age. If the "fail" state is fun enough, the player won't feel as bad and will be encouraged to try and play again in order to succeed. We also got feedback that kids enjoy breaking things just as much as building things, if not more so. From that, we may think about adding a destruction or least stable mode to RumbleBlocks to further increase engagement for the kids.

