

Candy City Quest Design Doc

Anna Guidubaldi, Rhianna Horner, Ema Pava

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Story

CandyLand Board Game History (Ema)

Eleanor Abbott created the original candyland game in 1948 as a way to soothe children suffering from polio when she herself was diagnosed and had a long hospital stay. The game exploded in popularity after the baby boom post WWII. The game was designed so that children who missed their parents could play the games despite their levels of literacy; the colors provide a clear path for the game.

Two to four players play the game by drawing a card and moving their piece to the corresponding color, some cards have two of the same color which indicators the player can move further, there are also two passages, if a region specific card like the gingerbread trail is drawn the player must advance to that region. The regions of the board include; Peanut brittle house, lollipop forest, chocolate swamp, licorice forest, candy cane forest, gumdrop mountain, ice cream sea, and candy castle. There are licorice squares where a player can land and get stuck in until they draw a card which matches the base color of the square they land on. Once a player reaches the candy castle they have won the game.

Main Narrative: Candy (Ema)

https://knightsucfedu39751-my.sharepoint.com/:w:/r/personal/emapava_knights_ucf_edu/layouts/15/Doc.aspx?sourcedoc=%7B236608E0-57A2-4045-B357-B11EF283F9B6%7D&file=Outline%20for%20Storyboarding.docx&action=default&mobileredirect=true

Villain Drawings/ sculptures: (Ema)





Elevator design and use:



Guests will be transported between floors (six at a time) within a translucent elevator in which a travel promo style video will play ideal versions of the various candyland locations and a speaker will announce the current mishaps within the locations in a brief war of the worlds style narration:

“**The** hot foods are attacking the ice cream/candy cane forest with flamethrowers! With no shade, the gummy bears will not have a place to nap! To cool down the ice cream forest stop the spicy fiends in their tracks! ” (Room 1)

Alternate Narratives (Ema/Rhianna)

Sci-fi

Make your way up the levels of the enemy spaceship to reach the control room so you can stop the alien invasion! Disable other alien technology along the way by hitting targets to help your cause.

Sci-fi Full Narrative Option

By the 32nd century, human society has progressed past the need for wars and conflict and has enjoyed a long period of peace and prosperity after reversing the progression of climate change in centuries past and beginning manned expeditions to explore their solar system and the stars beyond their own. The human race

may no longer have a need for terrestrial warfare but other societies do not share those views. Those sentient societies have taken note of the human race's technological and societal advancements, and as a result decided that because of those advancements that Earth is ready for a higher form of warfare and that the planet is open to challenge for ownership. The people of Ninda 8 have begun invading Earth by placing tall towers all across the globe that house their antagonistic forces to begin their siege of the planet.

Humanity needs your help to defend our planet from the alien invaders. Choose your bow from one of Earth's five planetary regions to use special arrows that will knock back the advance of Ninda 8's invasion and destroy their towers.

Horror

Climb the haunted tower to escape! Disable traps and stun scary enemies by hitting targets so you can get to the top and slide down to safety. Some targets will also unlock secret passageways/shortcuts!

Color

The once colorful Color Kingdom has turned black and white after a mysterious blight. Ascend through the color castle and help bring color back to the kingdom by activating color targets!

Medieval

Chase the evil monster and its minions up the castle tower to save the royal family and the kingdom! The final level will either be a boss battle against this monster or an opportunity to rescue and escape with the royal family.

Mechanics

Overview (Annie)

Ball Gun

Players will use a gumball themed, pump-and-shoot foam ball gun to launch their foam ball projectiles at targets. Foam ball projectiles will fill the clear plastic tube of the gun.

Projectiles

Players will use foam ball projectiles to hit targets. These projectiles will be safe and lightweight. Stations will also be available around each room for players to refill their ball guns.

Movement

Players will move upwards through a cylindrical building using a themed elevator. There will be three distinct levels with different objectives. Environmental elements will be placed along both the inside and outside walls and target placement will depend on these elements.

Targets

Players will aim to hit targets throughout each level. Targets will light up and make a noise when successfully hit for player feedback. Targets will have different color-coded difficulty levels and functions such as movement or hiding.

Points

Players score points each time they hit a target. Points will be tracked on a leaderboard in the lobby and will also be viewable on a player's weapon or virtual scorecard.

Difficulty Modes

Players will be able to choose between 3 different difficulty modes. The player's score for these modes will also be on the leaderboard.

Ball Guns (Annie)

Air-Pump Function

To shoot, players will pump the gun by pulling the handle on the front towards the handle on the back of the gun. Each time they pump, a foam ball will be air-propelled out of the gun. However, before each pump, the player must also turn the metal lever on the gumball machine siding to load up the next ball. The trigger on the gun will open the top bowl for reloading.

Re-uptake System

After a group of players has moved on from a level, there will be a brief amount of time between the next group's arrival where the balls will be moved through a re-uptake system. Around the outer ring of each floor

will be a pivoting grate. This grate will fall open to collect all foam balls and then those balls will flow through a tube reuptake system (similar to a bowling alley reset). The floor of each level environment will also be slightly angled to ensure that all foam balls will roll downwards towards the lower outside walls (the inner wall of each room will be higher than the outer wall).

Once the balls have fallen into the outer pivot grate, they will go into a pneumatic tube system that will use airflow to propel them into cylindrical refill tubes mounted along the inside wall of each room. Players will be able to access these refill tubes at any time to refill their air-pump guns. Players will simply attach their gun's clear plastic barrel to the bottom of the refill tube and then pull a lever on the bottom of each tube to release more foam balls into their barrels. Gun barrels can fit up to 10 foam balls at a time, so players will have to reload after every 10 shots.

Visuals



Targets (Annie)

Placement

Target placement will depend on narrative setting for each level. However, some targets will be placed so they are only selectively available—for example, underneath the arm of a moving character.

Color

Target color will differ based on how difficult it is to hit that particular target. For example, difficult targets will be colored red and easy targets will be green. Secret/Special targets will also have their own color to differentiate from others (ex: purple).

Target color could also correspond to player color for story purposes.

Mobility

Some targets will move throughout the environment and will be harder to hit. For example, there may be a target placed on a bird that flies through the level on a certain schedule.

Hidden

Some targets will only show themselves if the players engage with the environment in a particular way (ex: shooting their laser at a chest to open it). After 5 seconds, the target will go back to being hidden.

Secret/Special

Some targets, when hit, will open up secret passageway options that players can choose to move through instead of their basic path.

Accuracy

Targets will each contain 3 rings. The center of the target is the bullseye and receives the most accuracy points. The other rings will decrease in accuracy points as they move away from the center.

Difficulty Modes (Annie)

Speed

Players will attempt to “beat the clock”. There can either be an overall course timer or individual level timers. The goal is to take as little time as possible. Virtual timers can be displayed on weapons for easy reference.

Accuracy

Players can choose if they want to play the course with a focus on accuracy. This means that players will need to hit the center bullseye of the target in order for the hit to register as opposed to the face of the target as a whole.

of Shots

The player will try to beat or match a “Par” for the course. For example, each level may display the lowest number of shots required to complete. However, players can still continue even if they surpass this number.

Target Difficulties

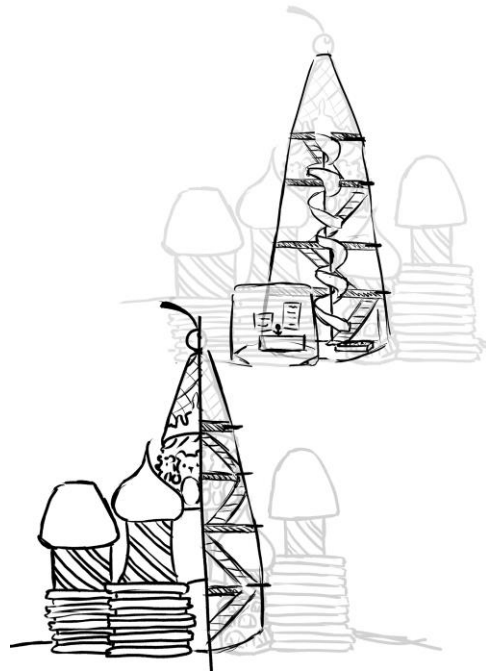
- Number of targets will increase slightly as levels go on (starting with 10).
- Targets will also vary in movement and placement/availability, with some being harder to hit than others.
- Target color will correspond with target difficulty levels.

Exterior (Rhianna)

Location Options

- Hershey, PA
- Icon Park, Orladno
- Daytona Beach, FL
- Los Angeles
- Other tourist areas

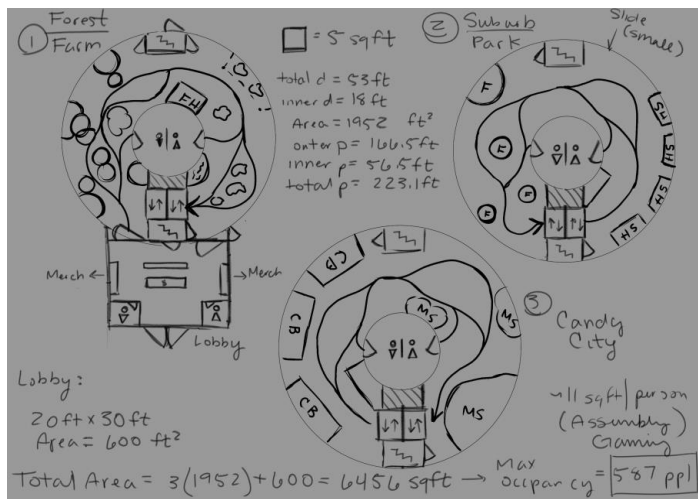
Building Design (final exterior mood concept & planning thumbnails--see *floorplans* for elevation)



Interior (Rhianna)

Floorplans

Also see *Math* section below

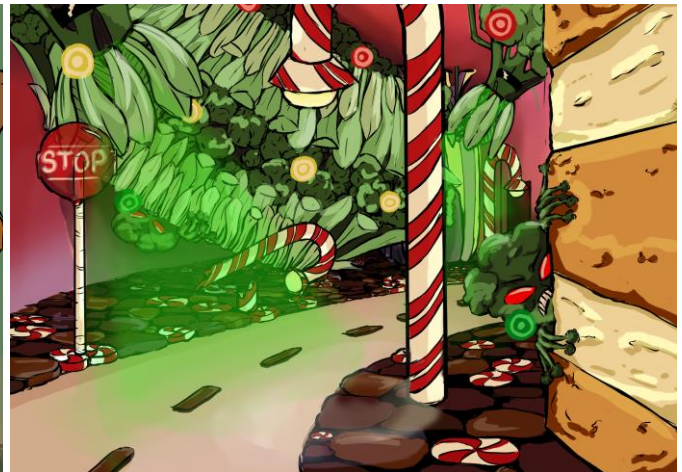


Level Designs

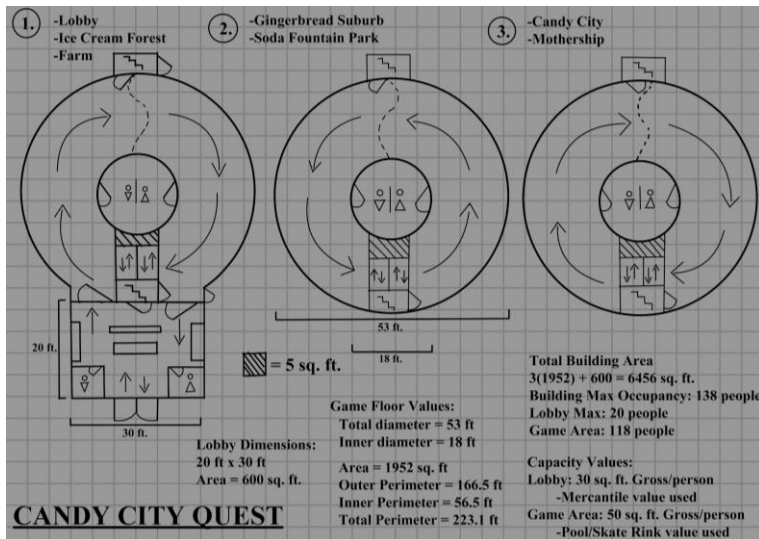
Entry level 1: Ice Cream Forest



Exit level 3: Mothership Encounter

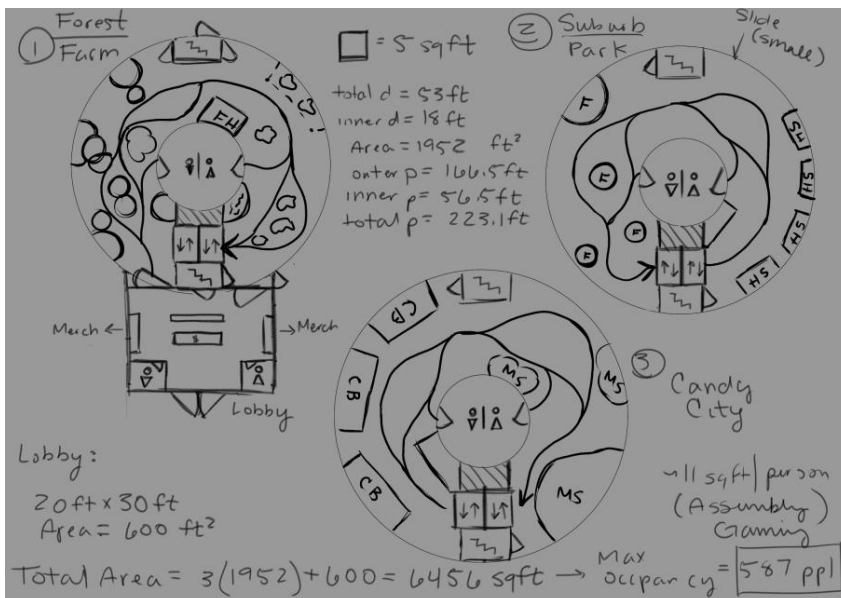


Planning Thumbnails



[Img. 2]: **Technical Floor Plan & People Flow**

- Total Building Area: 6,456 sq ft
- Game Floor Area: 1,952 sq ft
 - Lobby Area: 600 sq ft
- Max Occupancy: 587 persons
 - Assuming 11sq ft/person
- Minimum 2 fire exit paths required
 - Additional stairwell added
- Bathroom Requirements(placed in center)
 - Women
 - 7 Toilets
 - 3 Sinks & Mirrors
 - Men
 - 4 Toilets, 3 Urinals
 - 3 Sinks & Mirrors



[Img. 3]: **Proposed Set Layout/Floor Plan**

- Elevator entrances/exits on each floor are opposite the floor below--*due to dual elevator system*
- Side paths/forks proposed for more varied target placement
 - Allows for "secret" target encounters
- Land Progression
 - Forest-->Farm
 - Suburb-->Park
 - Candy City-->Mothership[still city]
- Nixed giant slide to place restrooms--did not know where to place otherwise. Could place a small slide in the soda fountain park though to make up for it?

References for Math

BigRentz, Inc. (2021, September 20). Commercial construction cost per square foot in the U.S. *Think Big Blog*. <https://www.bigrentz.com/blog/commercial-construction-cost-per-square-foot#Eastern>

Certified Commercial Property Inspectors Association. (2021). Commercial property safety requirements: Maximum occupancy. <https://ccpia.org/occupancy-load-signs/>

Cumming. (2021) *An in-depth look at construction costs per square foot in the United States*. <https://ccorpinsights.com/costs-per-square-foot/>

Gymnastics Zone. (2011, December 5). How Many Bathrooms in a Gym? *Ask the gymnastics coach*. <https://gymnasticszone.com/how-many-bathrooms-in-a-gym/>

Occupational Safety and Health Administration. (2018). *Emergency exit routes*. OSHA Fact Sheet. <https://www.osha.gov/sites/default/files/publications/emergency-exit-routes-factsheet.pdf>

Robert Brooke & Associates. (2021). *ADA bathroom layout for commercial stalls*. Partitions & Stalls. <https://www.partitionsandstalls.com/ada-bathroom-layout.html>

Stanley Elevator Company Inc. (2020). *Elevator shaft dimensions*. <https://www.stanleyelevator.com/elevator-shaft-dimensions/>

U.S. General Services Administration. (2019). *3.2 Space Planning*. <https://www.gsa.gov/node/82314>

Storyboards

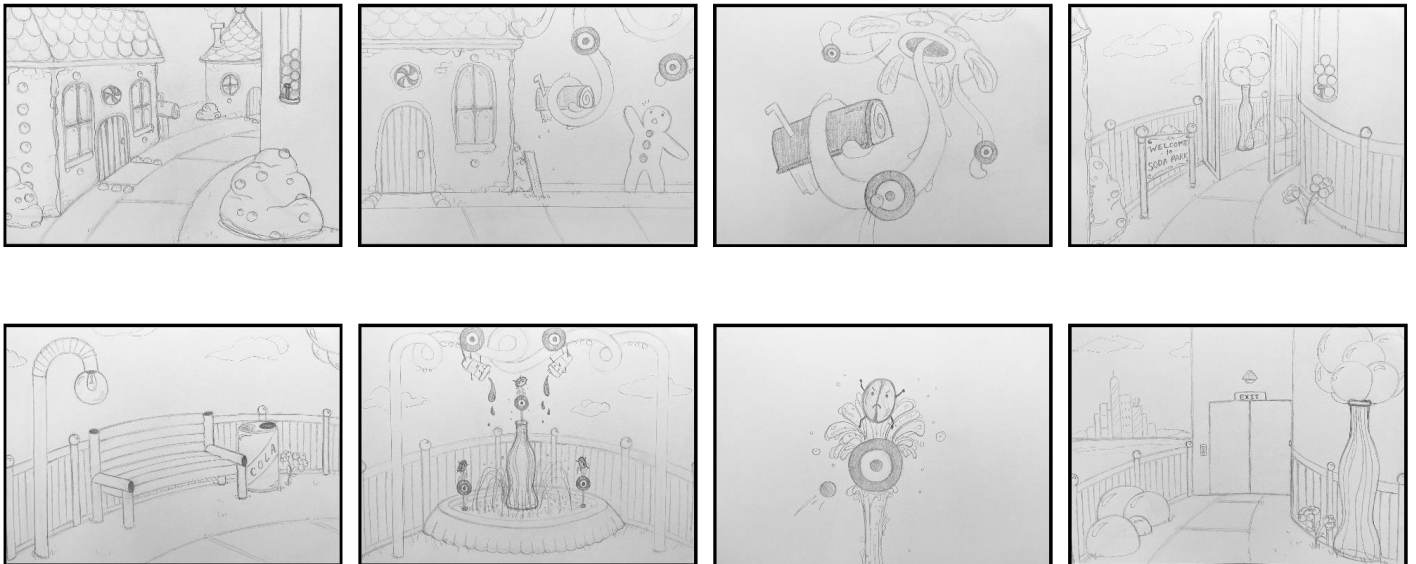
Lobby/Gift Shop (Ema)



Level 1: Forest and Farm (Ema)



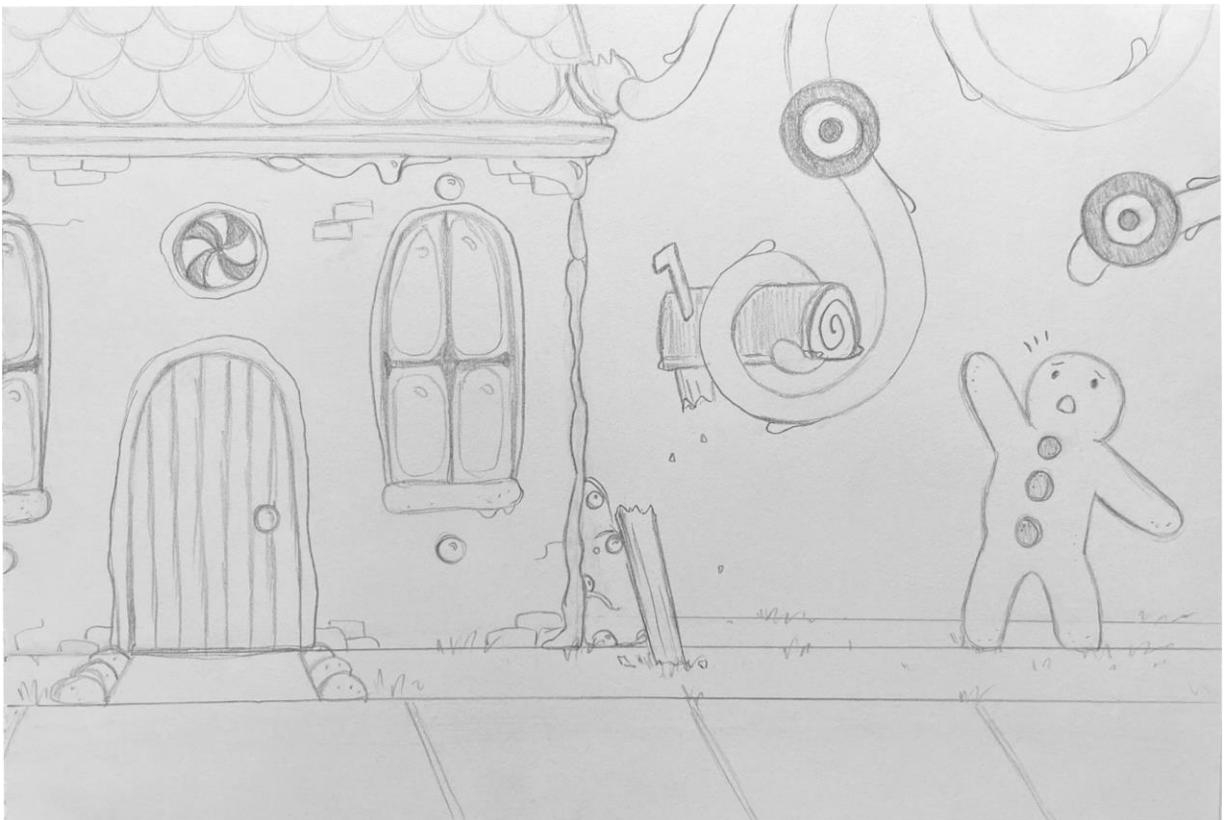
Level 2: Suburbs and Park (Annie)



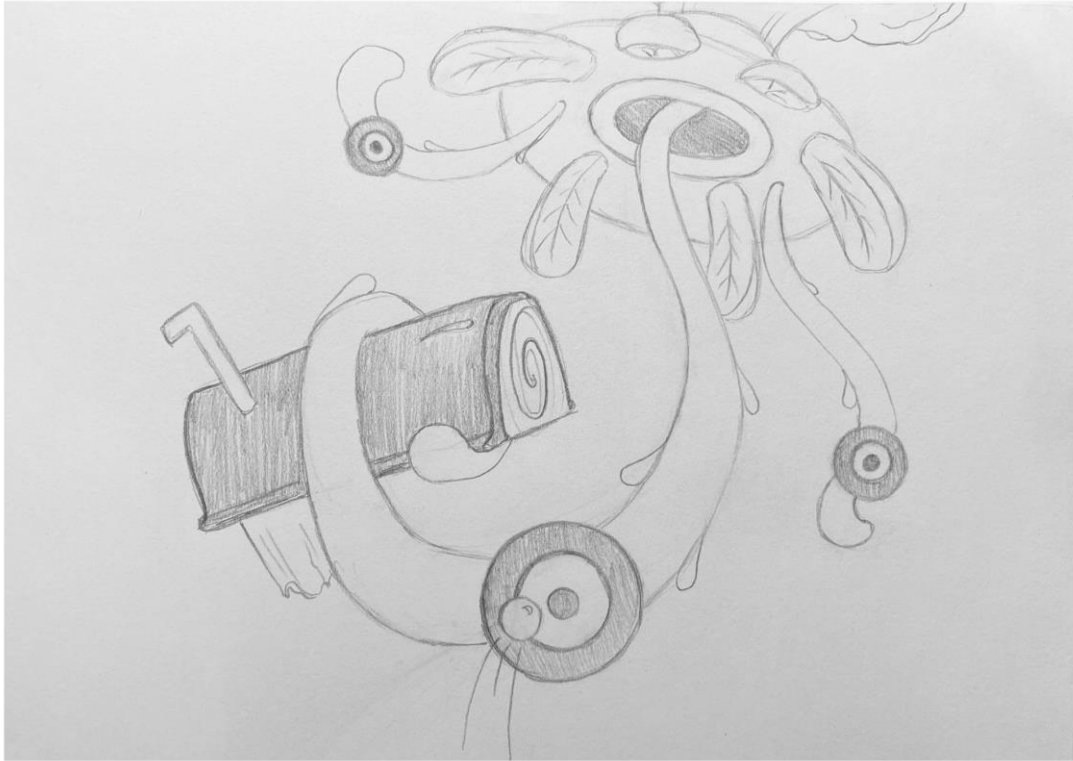
Storyboard Images Combined



1 - Enter Gingerbread Gables



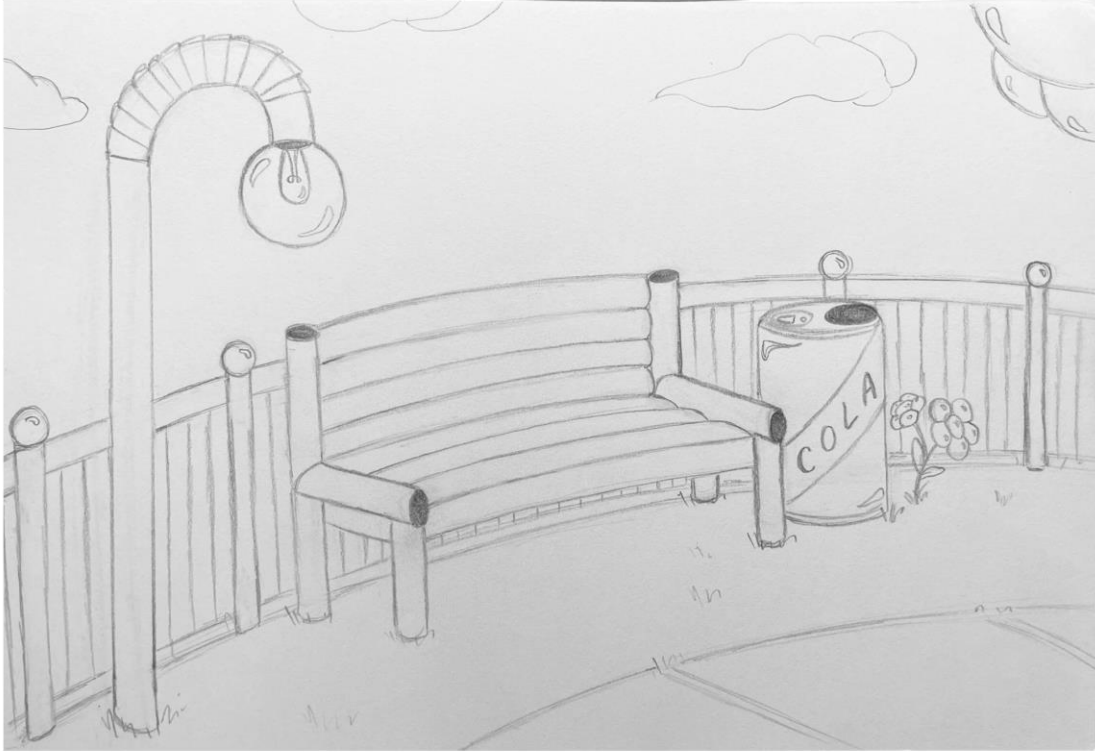
2 - Broccoli Ships are Destroying the Houses!



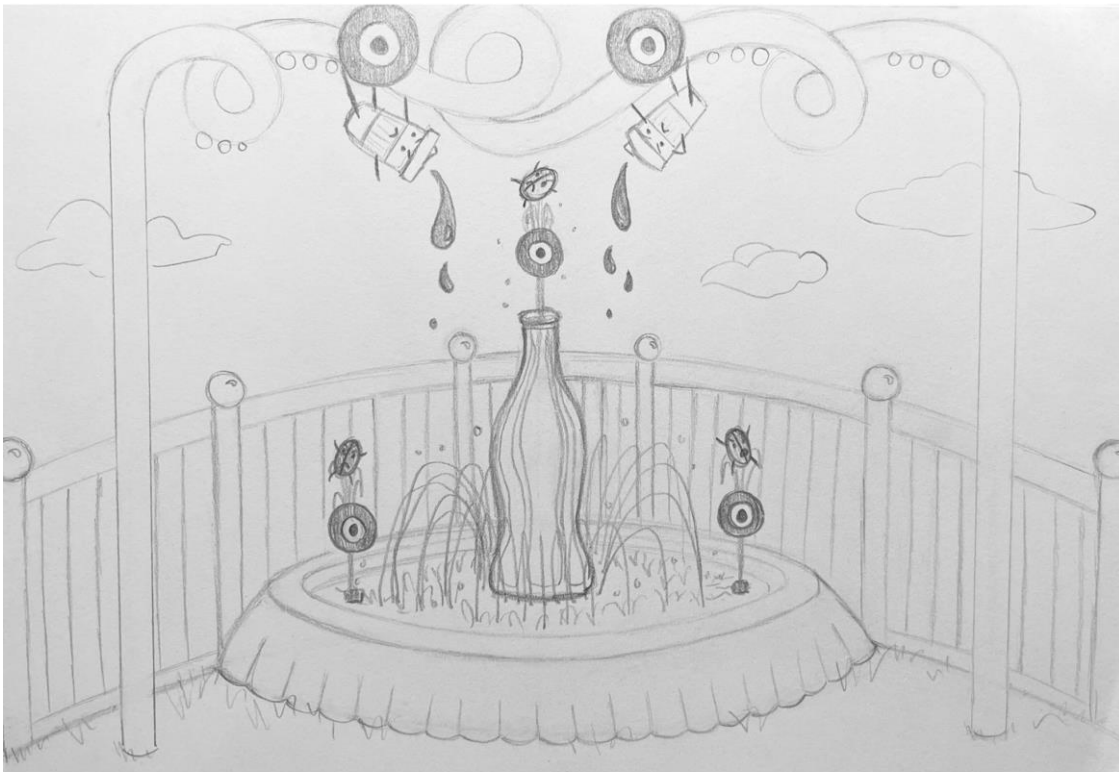
3 - Broccoli Ship Upward Angle



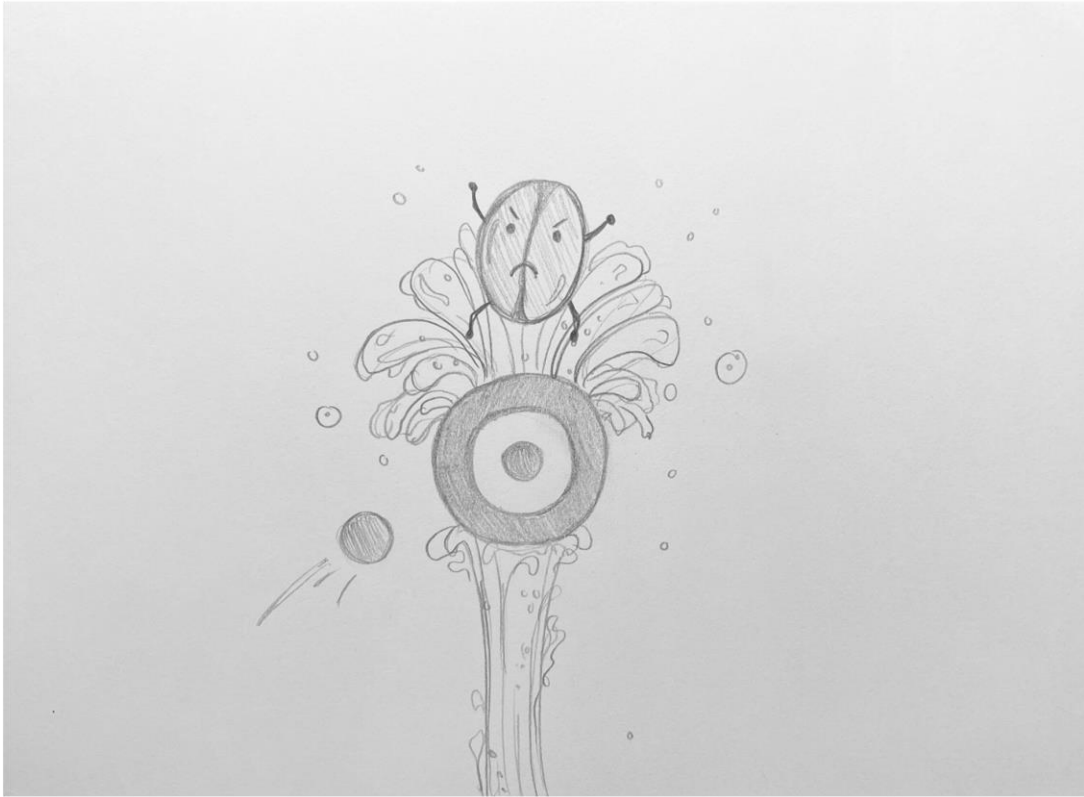
4 - Welcome to Soda Park!



5 - Soda Park Straw Bench Area



6 - Soda Park Fountain with Coffee Enemies!



7 - Coffee Bean on a Fountain Spurt



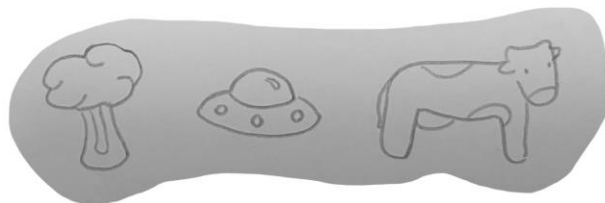
8 - Exit out of Soda Park (with Candy City in the distance)

Level 3: Candy City (Rhiana)



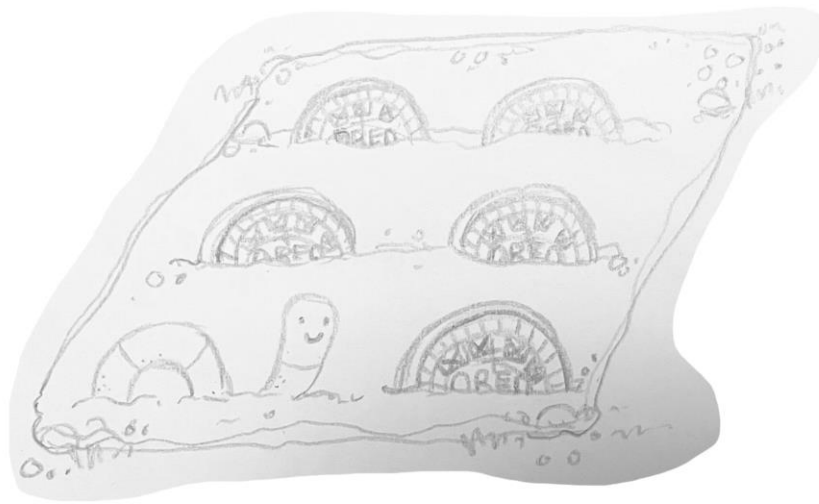
Props (Annie)

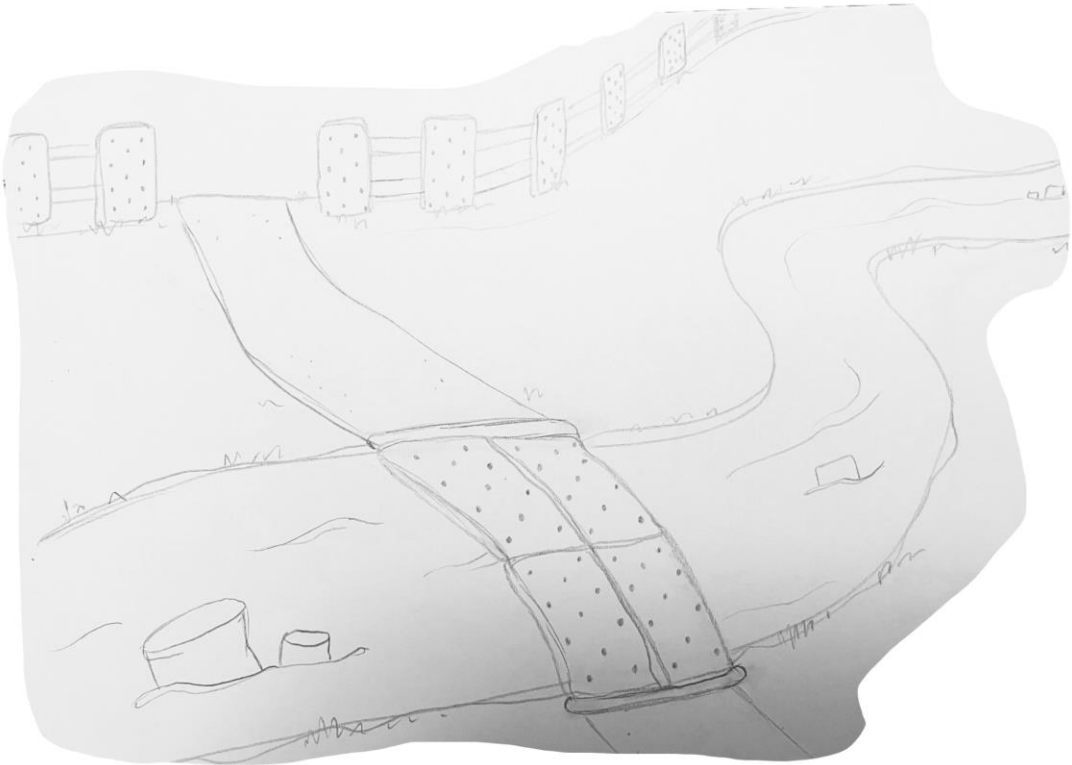
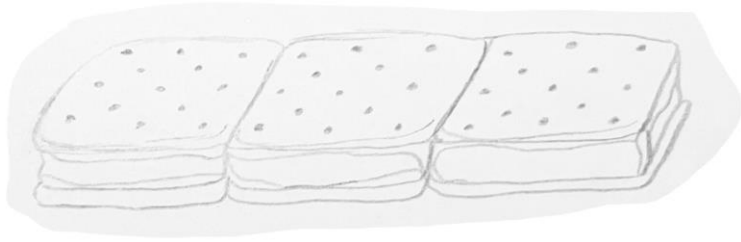
Lobby/Gift Shop



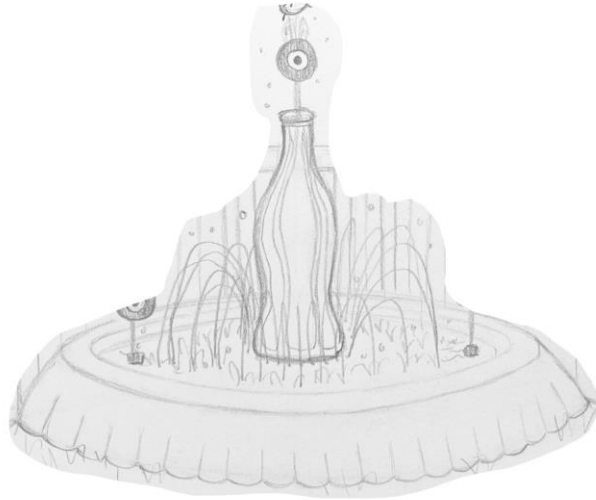
Level 1: Forest and Farm







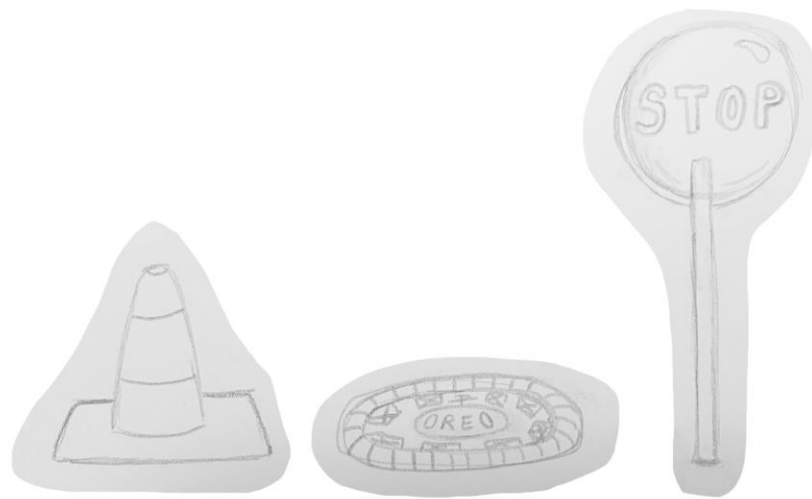
Level 2: Suburbs and Park





Level 3: Candy City





Costumes (Annie)

Employee Uniforms



Music (Ema)

Provide links to files on youtube or something

General candyland lobby theme, forest and farm themes.

https://drive.google.com/file/d/1TcROJCdw4UehSutYy_kDuI9IJXbiyOR8/view?usp=sharing

Meeting Notes (Rhianna)

[Link to the Google Doc containing notes taken during group meetings](#)