

Arctic Explorer

Game Design Document

as of 23/04/2023

Revision 1.2

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Boinky Dink Games

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1. Game overview.

URL/Link to your game: <https://flowlab.io/game/play/2198897>

1.1 Summary

The player finds themselves lost in an icy cavern without their equipment as they lost it during their fall down the crevasse. In this exploration 2D platformer, the player must look for their equipment spread out over the cave as well as clues as to what happened to the world. The cavern will feature difficult platforming and enemies to challenge the player along the way.

1.2 Game concept

The story for the game will revolve around an explorer set in the same year of an alternate universe where an event caused the southern hemisphere of earth to be entombed in ice. Explorers, such as the player-controlled character, venture towards the south pole to understand the source of the problem but few make it anywhere close and some never return. The game starts when the explorer accidentally falls into a deep crevasse and ends up in a system of caverns where their equipment was spread out and lost during their fall. The goal of each level will be to find the lost piece of equipment in that level before making the exit. The player may optionally collect clues as a way to challenge themselves. The player will be able to jump and attack shoot with their gun to traverse and defeat their enemies. The levels will be designed like a maze, increasing in difficulty as the player progresses. The cavern's natural traps will provide an additional challenge to the player as they explore it. The essence of the game will be capture as the player attempts to take their equipment back. The game will also have exploration as its secondary essence as the player explores the level to find the clues.

1.3 Genre

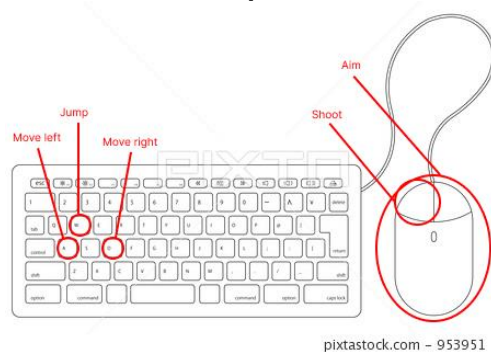
The genre of the game will be a Metroidvania 2D-platformer inspired by the game Hollow Knight. The game will draw inspiration from Hollow Knight's exploration and level design but also enemy variety. The skills that the player will need are mental, for the exploration and avoiding traps, and physical in terms of reflexes for controlling their character through the platforming and defeating enemies.

1.4 Targets

Target Audience(s)	Target Hardware
<ul style="list-style-type: none"> • Ages: 16-24 • Gender: Stereotypically male preferences • Focus groups: <ul style="list-style-type: none"> ○ Indie Game Fans ○ Platformer Game Fans ○ Player types: Explorer, Killer 	<ul style="list-style-type: none"> • <i>Platform(s):</i> <ul style="list-style-type: none"> ○ Nintendo Switch ○ OS: Windows 7 (64bit) <ul style="list-style-type: none"> ■ Processor: Intel Core 2 Duo E5200 ■ Memory: 4 GB RAM ■ Graphics: GeForce 9800GTX+ (1GB) ■ DirectX: Version 10 ■ Storage: 9 GB available space ■ Additional Notes: 1080p, 16:9 recommended

To fit my target audience's gender and age, I will make the game more focused on the exploration and traps rather than the challenge of the enemies. Since the main inspiration for the game is Hollow Knight and is also its target audience, the exploration aspect of the game has to be very prevalent and encouraged without making the player feel like they are hard locked out of it. The game will also fit the killer player type as the monsters require good control of the character and reflexes to defeat without using up resources.

1.4.1 User input



1.5 Setting

The story for my game will revolve around an explorer set in the same year of an alternate universe where an event caused the southern hemisphere of earth to be entombed in ice. Explorers, such as the player-controlled character, venture towards the south pole to understand the source of the problem but few make it anywhere close and some never return.

Being an Explorer is a dangerous job which requires great skill to be good at. Explorers are expert survivalists, have great physical conditioning and are capable scientists. Their purpose is to find out more about the arctic anomaly to reverse it back to how it was. No Explorer in the past 60 years since the event happening has been able to reach the source let alone come back alive. The survival conditions gradually get worse as you get closer to the source. Temperatures drop, food sources disappear, and hostile monsters become more frequent. These monsters were once animals, but they have been transformed without explanation.

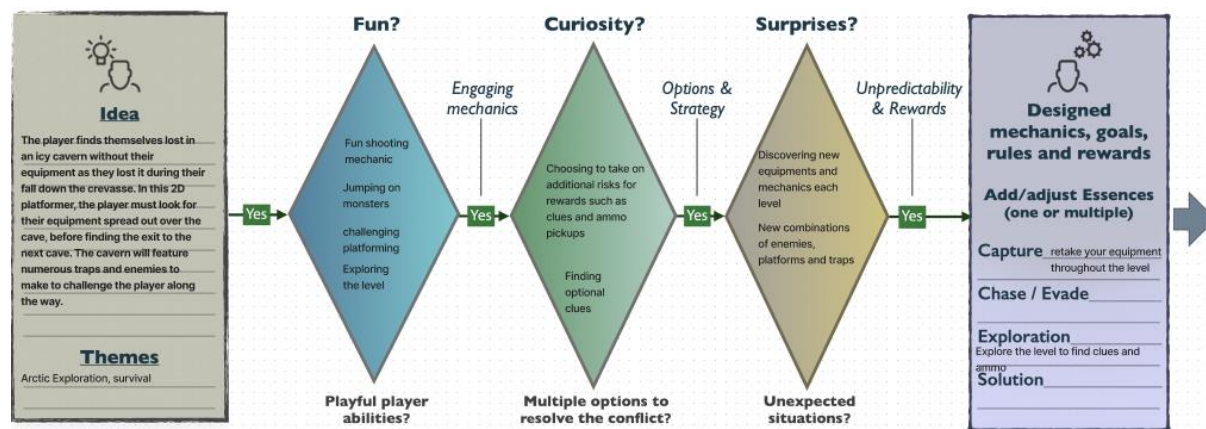
1.6 Look and feel

The style of my game will be retro, with 8-bit pixel art style. The goal with the feel of the game is to evoke a sense of mystery to match the context of the game. However, the art style of the game is supposed to ease these tensions by creating an Arcady aesthetic and feel.

1.7 Game flow

On a moment-to-moment basis, the player is focused on traversing the terrain while paying attention to traps and monsters ahead. When the player is faced with a dangerous situation, the player would ideally analyze the best way to get past it without taking damage. When the player faces an enemy, they would ideally decide whether they can kill the enemy easily by jumping on top of them, or if they would rather resort to the gun. The player will sometimes be faced with different paths, in which case they would explore the paths to find more clues or the exit to the next level.

1.8 Game Design Construct



2. Gameplay

2.1 Mechanics

List of mechanics:

Player:

- Has 5 health
- All damage deals 1 damage
- Can move Left and right
- Can Jump
- Jumping on top of enemies kills them
- Aim with the mouse
- Click to shoot
- The player can pick up equipment
- The player can pickup ammo which replenish 1 ammo
- The player can pickup clues as a collectable with no effects

Equipment:

- Gun: allows the player to aim and shoot enemies, 3 bullets to shoot at the start
- Pickaxe: allows the player to break specific blocks which reveal hidden rooms
- Extra cloths: gives the player 2 extra health points

Terrain:

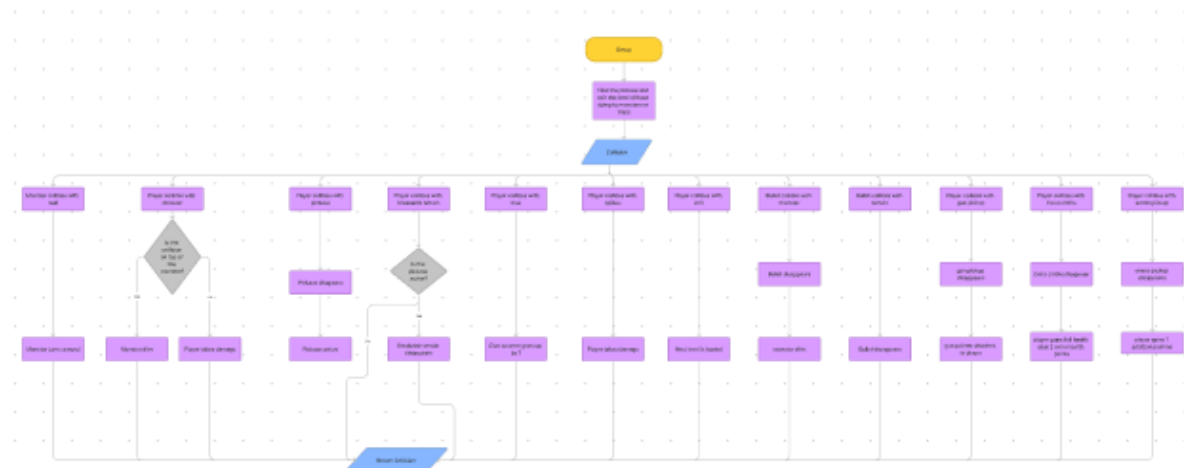
- Breakable blocks which break when the player has the pickaxe and collides with them: breaking 1 block should reveal the entire room instantly and break adjacent breakable blocks
- Spikes cause 1 damage when the player touches them
- Ice sheets cause the player to slide

Enemies:

- Bats fly back and forth and deal damage when hitting the player from anywhere but the top
- Goblins walk back and forth faster than bats and also damage the player from anywhere but the top
- Enemies all have 1 health

2.2 Flow and progression

The main goal throughout the level is to progress through it and explore to find your equipment, clues, and the exit. The player feels rewarded when they reach the equipment as there are a bunch of challenges along the way and they unlock a new ability or power up, depending on the equipment, which helps them explore and complete the level. The player will also feel rewarded when they reach a clue, as most of them can only be reached by taking additional risk. Ultimately, the player would want to complete the level with all the clues collected from that level to get a sense of achievement.

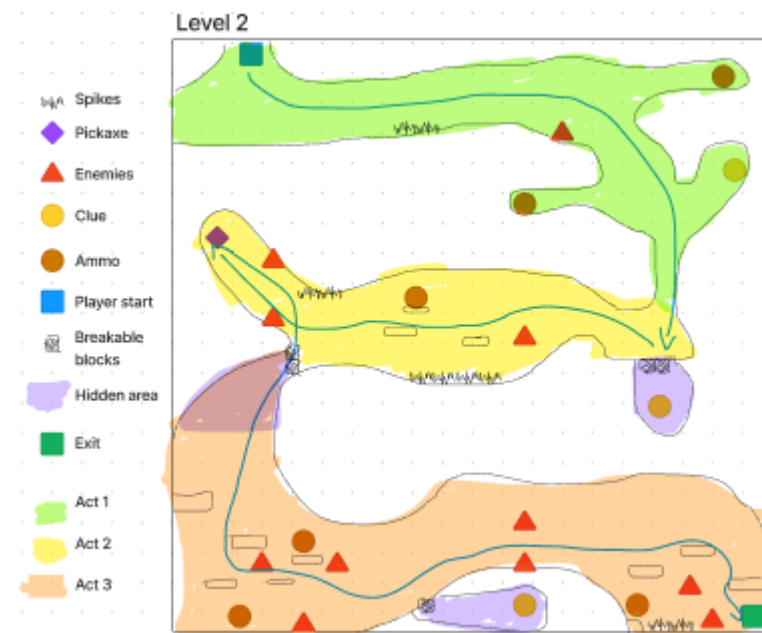


2.3 Structure, pacing and Level Design

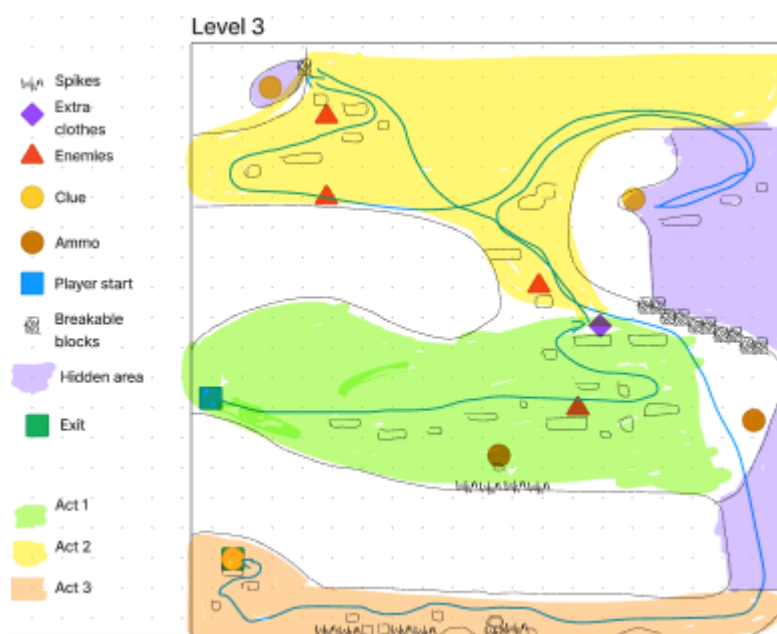


Level 1 is designed in a way that it introduces the player to the basic types of challenges the player will face throughout all three levels, such as enemies, spikes and platforming. This is mainly done in act 1, where the player has no equipment yet and is limited to moving, jumping and killing enemies by jumping on top of them. Initially the player will fall and notice the enemy on their right which they cannot kill because of the terrain above its head. This is done to push the player to explore the left side and find the gun. Once the player has the gun, they should understand that they need to use it to get passed the enemy from the beginning. The first clue is easy to reach on purpose to encourage the player to take it and

encourage them to take the second one which is a bit more risky. This level is smaller than the others as it is mainly used as an introduction to the game.



Level 2 is designed into 3 sections, each representing a different act. In act 1, the player is smoothly introduced to the level and encouraged to explore the little rooms as way to make them more aware of their surroundings in the hopes that they can see the breakable terrain around them in act 2. In act 2, the player is challenged by having to face combinations of the dangers they learned about in act 1 and in level 1. Act 2 ends with the player finding the pickaxe which they are encouraged to find because the level is blocked off by the breakable blocks. Once the player has the pickaxe they hopefully realize they can now break these blocks, including the ones they passed when dropping down from act 1. Act 3 is meant to push the player's potential by having them face more difficult situations than act 2, although this time the goal is to reach the exit.



Level 3's layout is meant to challenge the player's curiosity as they could technically finish the level without going into act 2. The idea behind the breakable blocks next to the extra cloths is that they reveal where the clue is and the way to the exit underneath as well. Act 1 is to the hardest challenge of the level and the game mechanically, which if completed grants the player access the extra cloths and clears the path to the exit and the clue, giving the player options. Although act 3 is easier than act 1 it is further away from the starting location making it more tense.

To fit the explorer player type, I created different hidden areas which the player can explore. I also added the clues which I spread around the level to encourage the player to explore and look for them, as well as challenge themselves when they are at the end of a difficult path.

To fit the killer player type, I made killing the monsters satisfying and fun by adding sound effects and making killing enemies a relatively skilled challenge.

3.1 Assets

Name	Description	Source
Snowy Terrain sprite		Flowlab asset
Icy terrain sprite		Flowlab asset
Breakable terrain sprite		Flowlab asset
Exit terrain sprite		Flowlab asset
Character sprite		Flowlab asset
Bat sprites		Flowlab asset
Goblin sprites		Flowlab asset
Pickaxe sprite		Flowlab asset
Ice sprite		Flowlab asset
Spikes		Flowlab asset
Gun sprite		Flowlab asset
Bullet sprite		Flowlab asset
Extra cloths sprite		Flowlab asset
Shooting sound		Flowlab asset
Ice crystal sprite		Flowlab asset
Clue sprite		Flowlab asset
Ammo pickup sprite		Flowlab asset
Monster death sound		Flowlab asset
Player damage sound		Flowlab asset
Achievement sound		Flowlab asset
Gun pickup sound		Flowlab asset
Ammo pickup sound		Flowlab asset
Clue pickup sound		Flowlab asset
Damage taken sound		Flowlab asset
Monster killed sound		Flowlab asset
Background music		Flowlab asset

3. 2 Additions based on playtest feedback

One of the criticisms of the game that I felt was important to address was “why are the spikes bouncy?”. The reason why this was done was a simple way of prevent players from getting one-shot when hitting the spikes due to the collision, but to give them a way out of the spikes. However this clearly wasn’t a good way of handling it as per the feedback. This ties into another suggestion that was made in the playtest which was adding an immunity period after get hit. I therefor added it to resolve an issue that was raised as well as fulfill a good suggestion made by a player.

Outside of this some of the suggestions seemed a bit unnecessary such as the sprint button, while others seemed of low priority to the players suggesting them.