GDD

- Archery Coding Challenge -

1 Introduction

This document describes the design for a short coding challenge for Bright Star Studios' evaluation process. The objective is to make a basic game where the player can shoot arrows at a target, focusing on making the hit feel really good to the player.

2 Gameplay Goals

1. When an arrow hits a target, it should feel super satisfying, powerful and `j u i c y`. This is the main focus of this challenge after all.
2. The player should have as much control as possible over how the arrow is fired and it should always feel like a good, powerful shot.
3. The player should move in a way that feels natural and responsive to the player, making it easy to move around while aiming.

3 Gameplay Mechanics

3.1 Player Moving

Player moves on x and y using `WASD`. Bow is aimed with by rotating towards the mouse position.
To make the movement feel responsive it should be mapped pretty much 1-1 with the player input. No acceleration on moving and aiming. To make it still feel smooth, the character should rotate just a bit behind the bow that is being aimed with.

3.2 Player Shooting

On mouse down there should be a sound and the arrow should right away cock back a small amount that can be released right away and still feel powerful. The bow should bend along with the arrow moving back. If there is no arrow currently on the bow (because the player has just fired), then if the player is holding down the mouse button, it should achieve the same affect once a new arrow appears.
On mouse hold the attack charges and the arrow should keep moving back until maximum charge. The tension first rises fast, then slows down towards

the maximum. As the arrow moves back, there should be a sound of increasing tension. Once the arrow reaches maximum tension, there should be a sound cue and the sound of increasing tension should stop. The player moves slower while holding an arrow ready for firing.
On mouse release the arrow is released, use some squash and stretch on the arrow and bow to make the firing more dynamic. The longer the attack has been charged, the faster the arrow should fly. There should be an audio on the release as well as a particle *puff* effect. There can be a slight screen shake and character push back, that increases with more powerful charges.
A maximally charged attack should have more exaggerated sound and particles too.

3.3 Arrow Hit

`BAM!` (play some audio).
The arrow gets stuck in the target. The target is knocked back and falls over.
We need some nice visual effects. BotW has a shining sparkly light that engulfs the whole screen a split second, as well as an expanding bubble thingy.
The game should slow down for just a split second to really let the player know that they hit something.
`sCrEeN sHaKe`.
Maybe the arrow could pivot around the arrow head once it gets stuck in the target, so the arrow is pointing straight at the center of the target. Also, we could set a specific depth that the arrows should penetrate to, this way we don't have stuck arrows that look weird because they strafed the target.

3.4 Enemy Moving

The enemy should just look at the player and slowly move towards them.
I don't want to deal with path finding, so let's just leave the level empty, except for some walls of the arena or something.

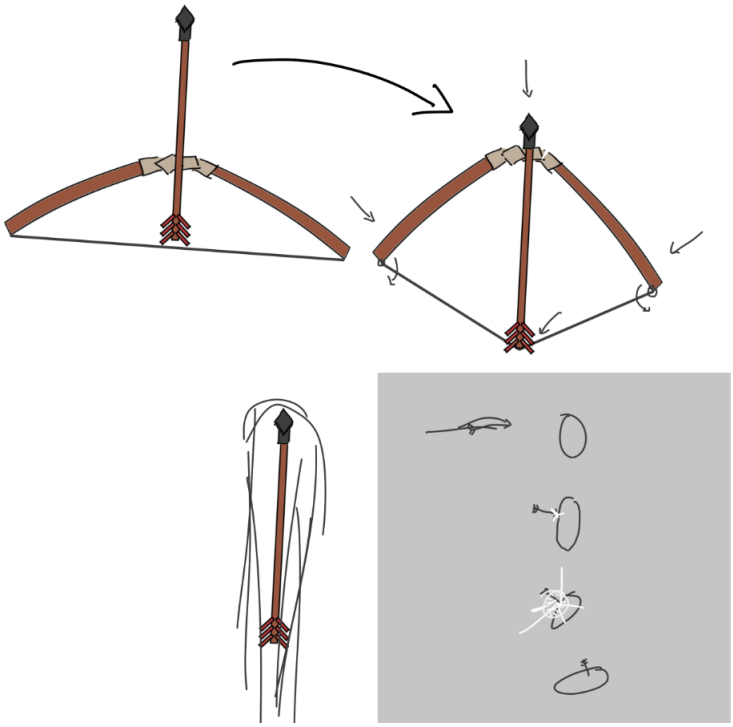

Figure 1: Concept art for bow and arrow

4 Inspiration

- Dojo of Death
- Nuclear Throne
- Wizard of Legend
- League of Legends
- Legend of Zelda: Breath of the Wild