

# The making of Botani



*Michael McNamara*

# Introduction

When I was assigned this project, I knew that the best way for me to produce something of quality was to make it into something I enjoy doing. So what could I do that I'll enjoy doing?

Well, my favorite form of creative work is drawing and painting. Specifically, I love character design. It's always been my favorite thing to draw. Condensing informal concepts into characters makes the world feel so much more personable. Another thing that I enjoy is video games. Not all of them, for sure, but there are a lot of games with genuine charm and personality that is conveyed through their art styles. So, I figured that I would combine these two subjects and do a video game character design project.

My goal for this project was to really test my character designing skills. I have experience in this subject, but I also have never tackled something of this scope before. Keeping track of inspirations, ideating how the characters would fit into the context of a video game, doing multi-

ple poses, and having them all feel balanced and coherent with one another was a massive shift from my usual method of drawing whatever I want.

Now, I was already deviating from my usual process as soon as I started this project. Normally, I can just get into drawing whatever suits my mood at the time, but this time, I had to stop and formulate a game idea that I could insert my characters into. After all, if I'm designing a character for a video game, then they need to fit inside the game idea.

I'm not a game designer, so I figured I would treat this project like I was being contracted to do work for somebody who is, complete with a prompt.

# Prompt

The glade of Botani is a peaceful place, populated by an abundance of plant-like creatures. It is a paradise free of strife until a polluting force descends upon the land. The pollution spreads across the glade like wildfire, twisting the land into a corrupted likeness of its former self. It is up to the four playable characters to cleanse the land of its corruption, defeat all foes that would do it harm, and save Botani!

The game would play like an explorative puzzle-platformer with an emphasis on combat. The four characters would traverse a large 2-dimensional map while fighting enemies, solving puzzles, unlocking abilities, meeting NPCs, and cleansing each area of pollution.

Given the nature of the game, the characters need to be designed around it. Each character needs to evoke a natural feeling to contrast the vile tone of the pollution monsters. They need to be agile, given that the game will have a lot of jumping and platforming. They will also have to be distinct from one another, but still feel similar enough that they could be on the same team.

*This thing is an Oyel. Their the weakest pollution monster in the game. You'll see him a few times throughout the book as a practice dummy.*



Rhyllis





# Inspiration,

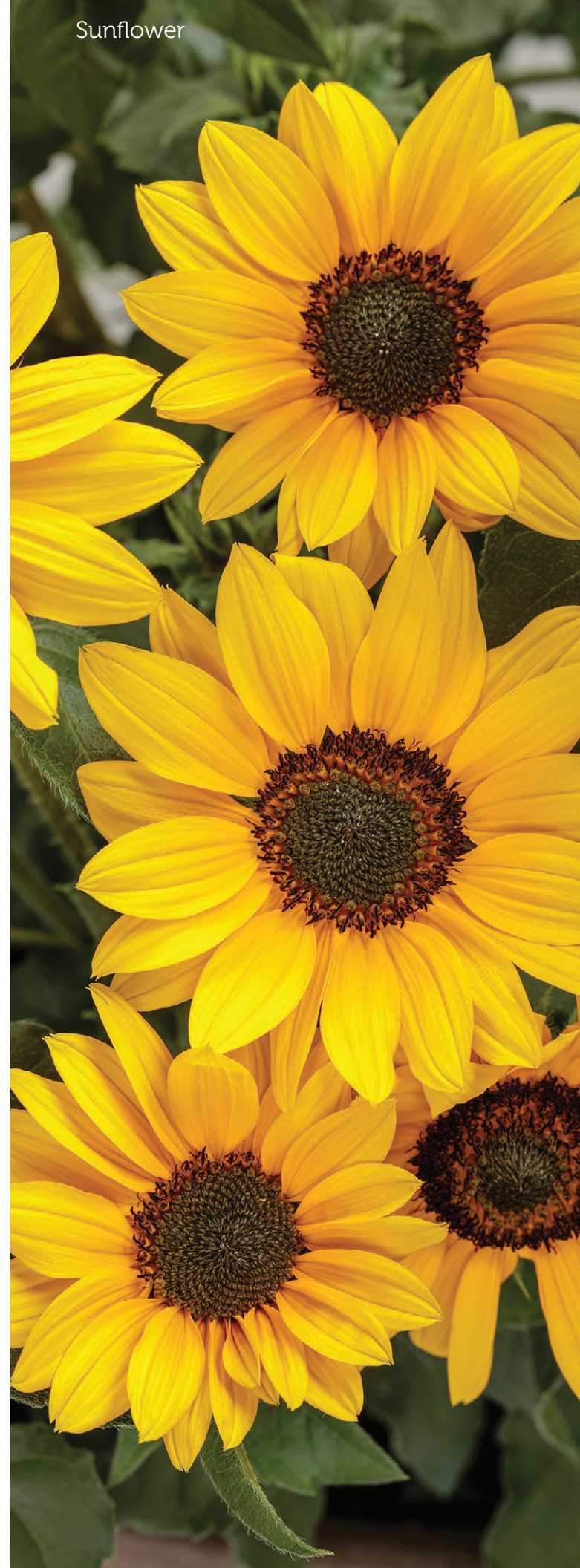
My initial plan for Rhyllis was very vague. All I knew was that I wanted a character based around photosynthesis and that they would use sunlight as a resource for attacking. Rhyllis was also the first character I really went in depth with designing. I came up with designs for two other characters before this one as a way of pitching my idea, but they were both fairly rough and not super thought out. As a result, I was really struggling to come up with a direction for this one.

My inspiration for Rhyllis wasn't all that complex. I wanted their design to be based on a plant often associated with the sun. So what plant fit that description? My first thought was the most obvious answer to this question: The sunflower.

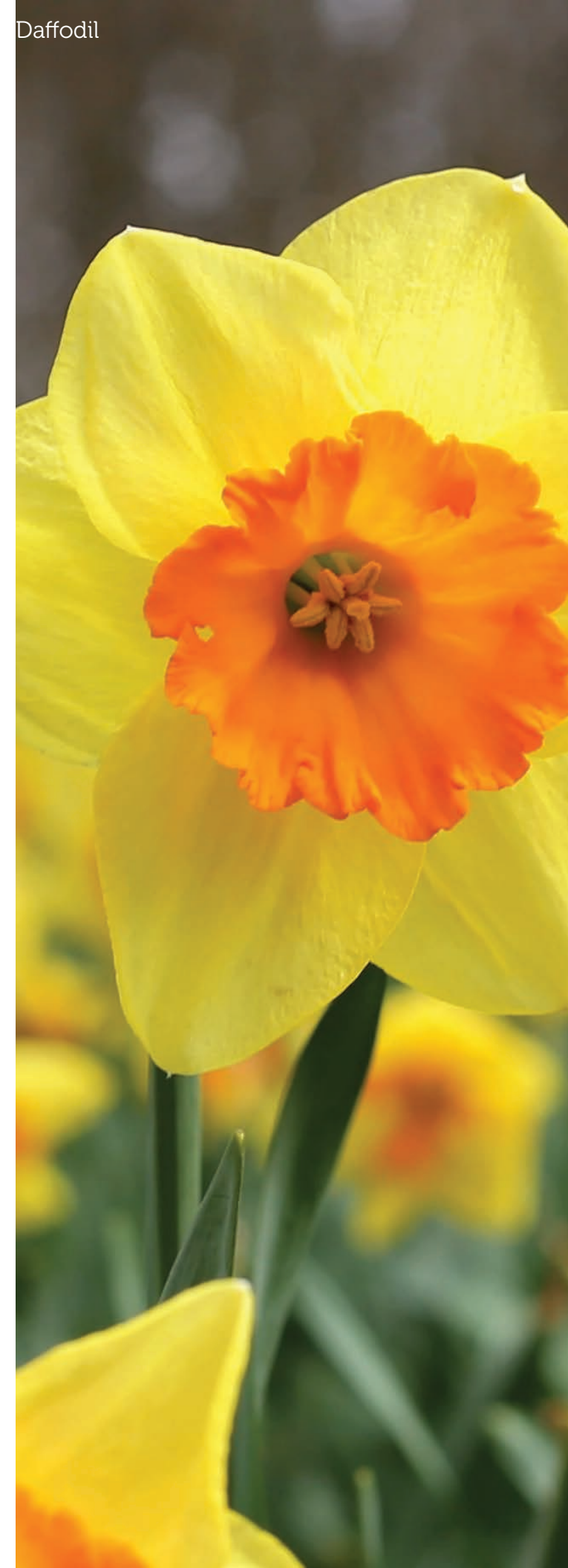
However, what I didn't expect to find during my research was another flower that had a much more engaging appearance. That flower was the daffodil. The six-pointed star shape of the petals had a very strong design all on its own. This shape became very important as my design process continued.



Cluster of Daffodils



Sunflower



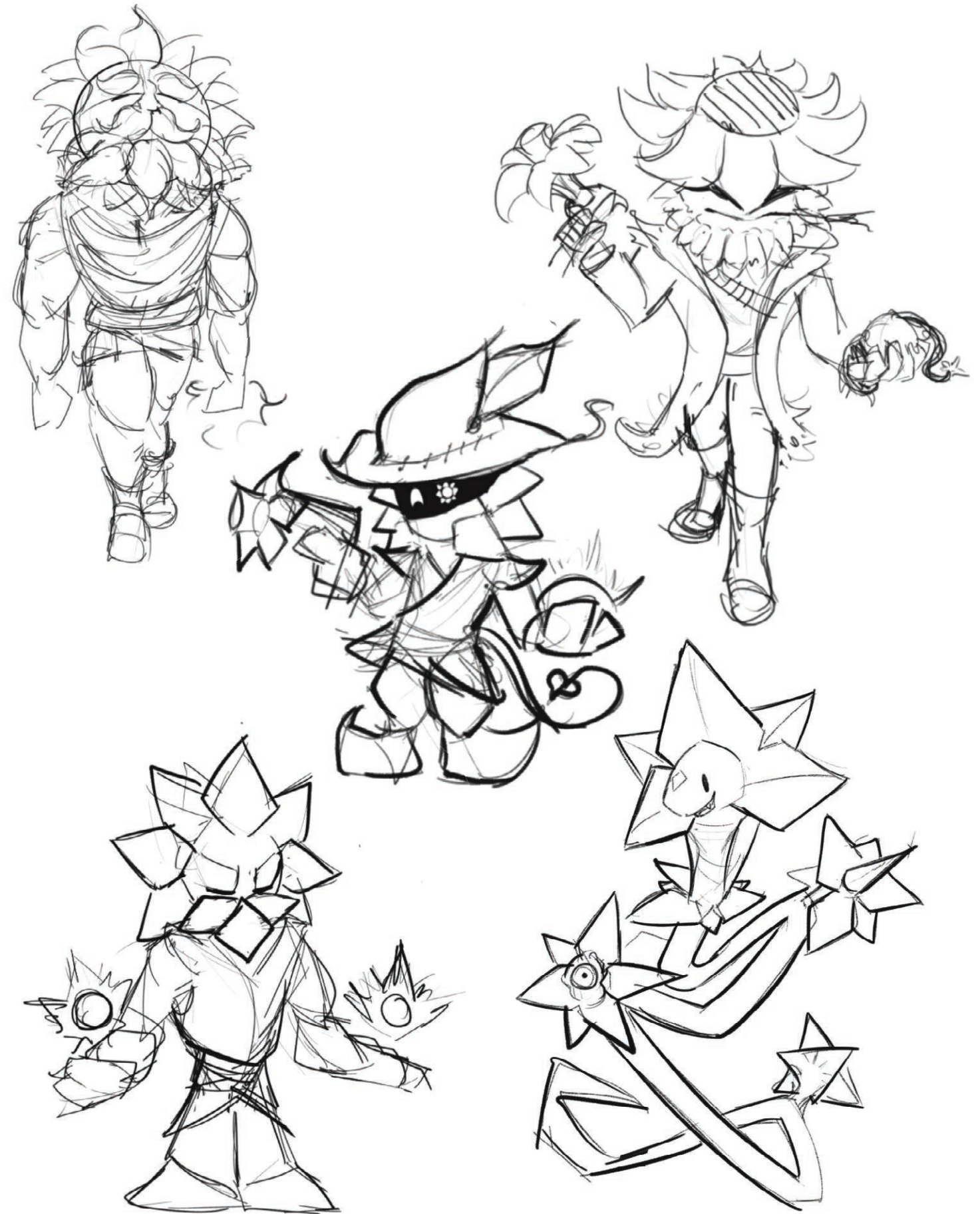
Daffodil



# Initial Concept

Since my concept for my character was pretty open ended, I did a lot of experimenting with designs that could utilize sunlight as a resource. Most of my designs at this point were based on fantasy RPG classes, specifically monks and gunslingers. While these designs aren't bad by

any means, I couldn't help but feel like they were derivative of things that I'd seen elsewhere. It was only when I tried designing a non-humanoid character that I really liked the direction I was heading in.





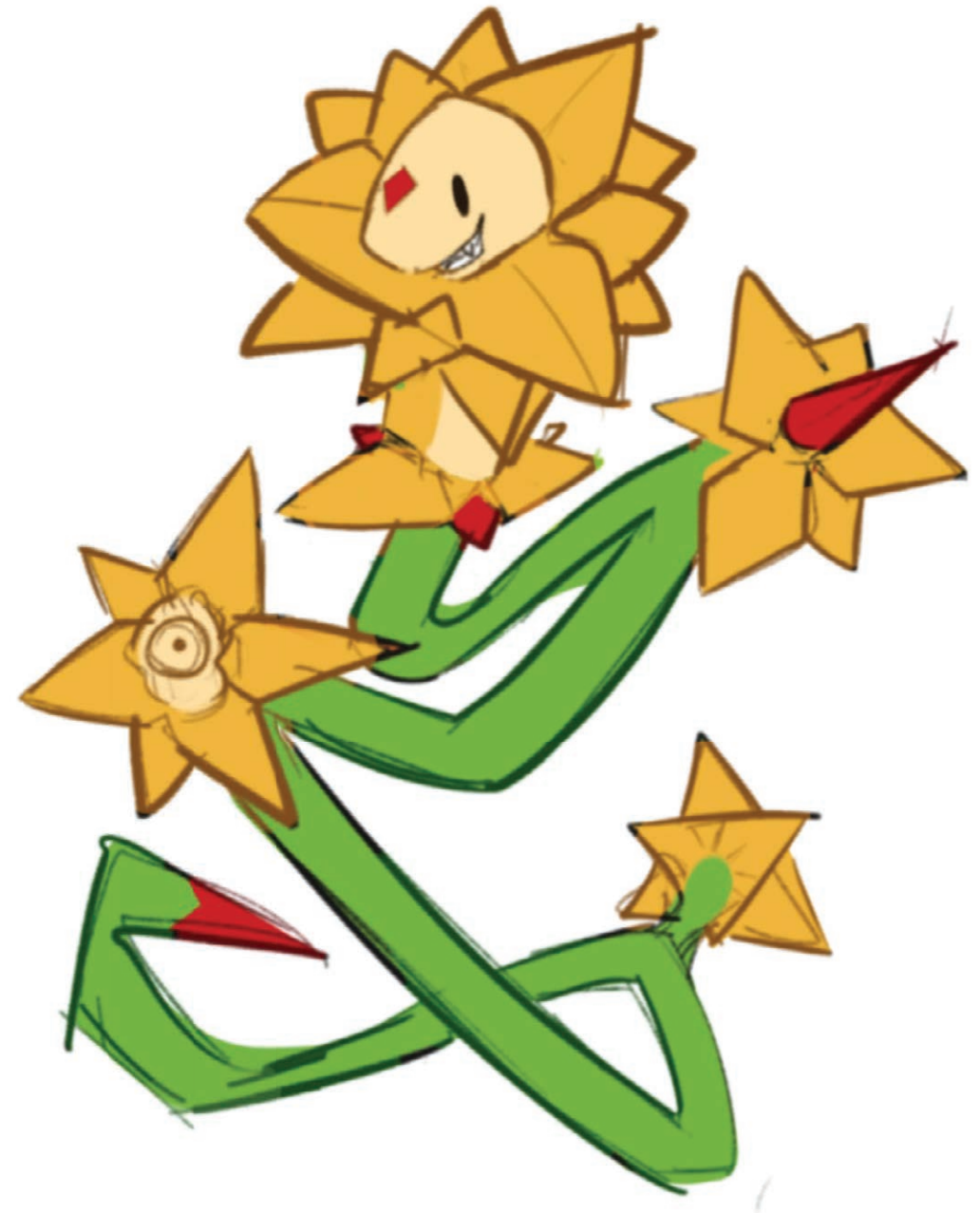
# Visual Development

*This was also the pose that I first came up with when designing Rhyllis. The pose has a lot of energy that I really like, so much so that I used it for the final render, too.*



I figured that reptiles rely on the sun for warmth in a similar way to how plants rely on the sun for food, so I could easily merge the two concepts. Snakes have bodies like stems and vines, so combining a flower and a snake was a logical way of looking at the prompt.

At first I started with the above sketch. The design has a lot of good things about it, but the biggest issue is the hood. I wanted it to be oriented with Rhyllis' head like a cobra's hood, but I didn't like the way that it looked, so I changed it to be more like a mane. The design on the right is an almost finished version of the final design.



The most important thing that happened when I was working on Rhyllis was that I decided to put a limitation on myself. I was no longer going to use man-made items like clothes or tools. Everything in the designs would either come from or be attached to the characters' bodies. This was a really important design decision because it let me unify the characters by organically working on them, without trying to force them to be similar.

# Final Design,

For Rhyllis's final design I changed very little from the first sketch that I made of them. The biggest change was just an adjusting of proportions to be more appealing. The flower around their head is now bigger, their body is thicker, and the tail is angled upwards. I also refined the color palette to a more orange so that the design has a more vibrant look to it.

*Head acts as a solar panel for gathering and storing sunlight*

*Flowers with thorns are for melee attacks, and flowers with coronas can shoot beams of sunlight. These flowers can be grown all along the length of Rhyllis' body.*

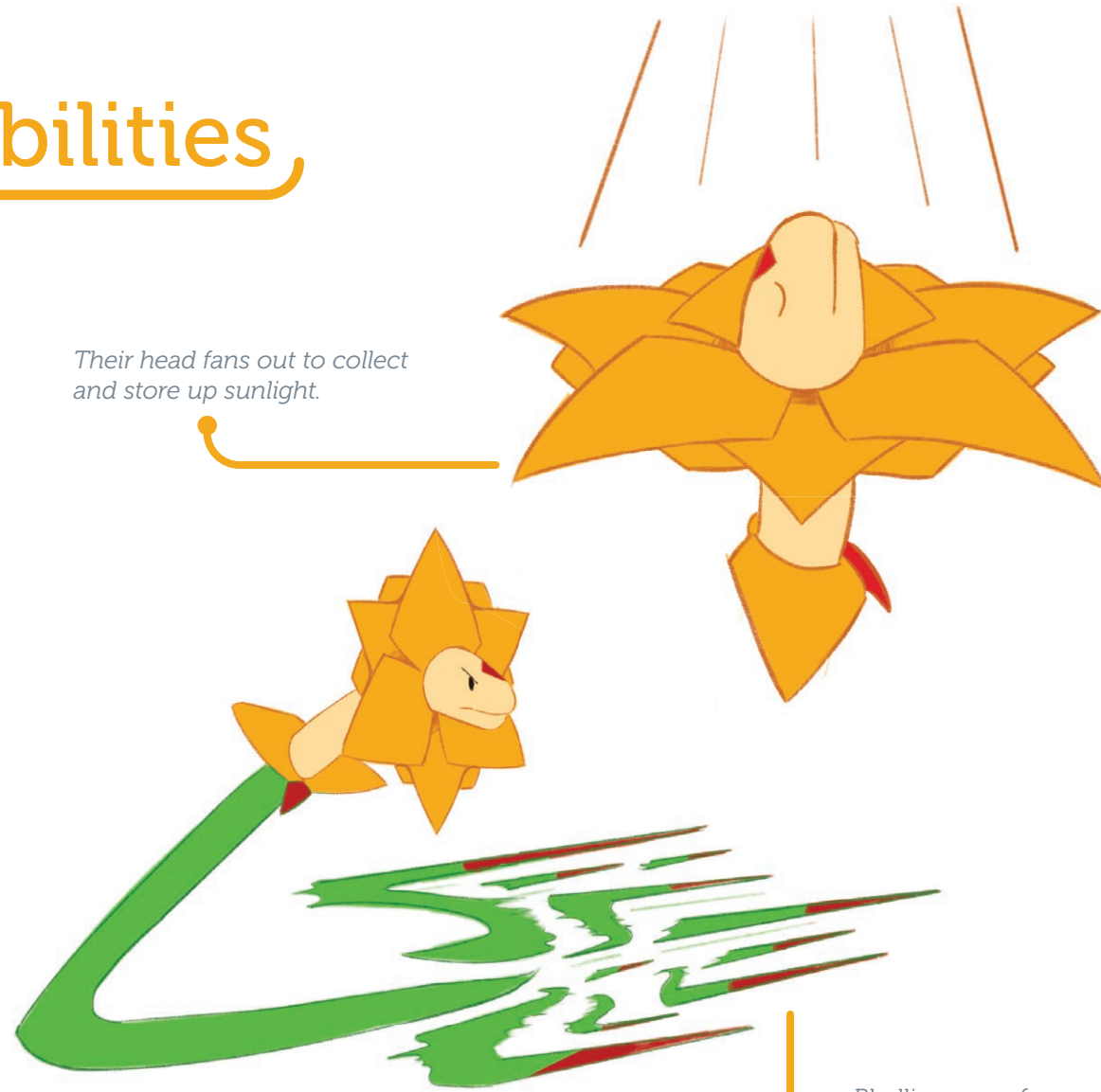
*Tail is a weapon that can stab at foes as well as planting seeds in the ground*

*Slender, agile body. Good for darting in and out of combat.*

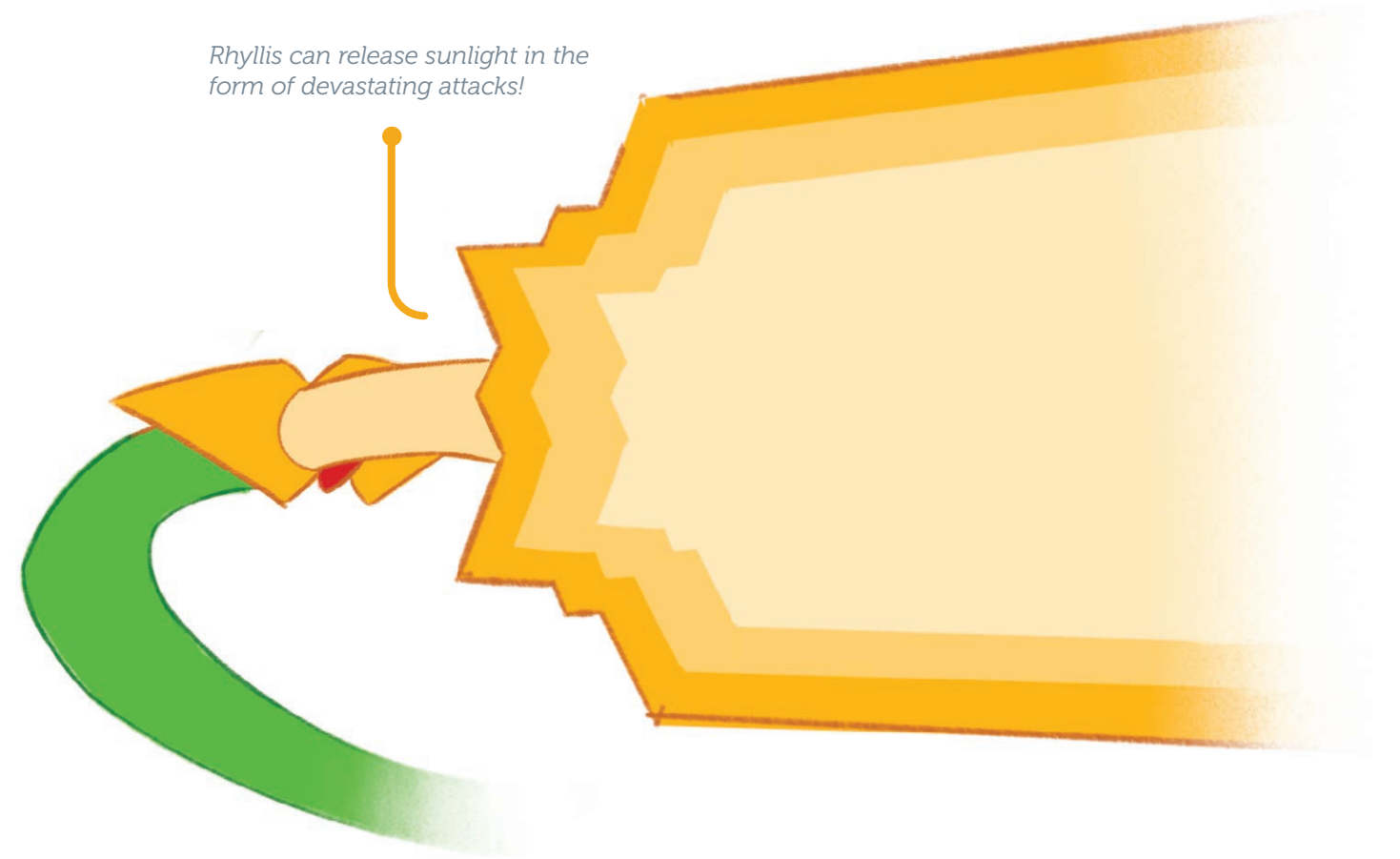


# Abilities

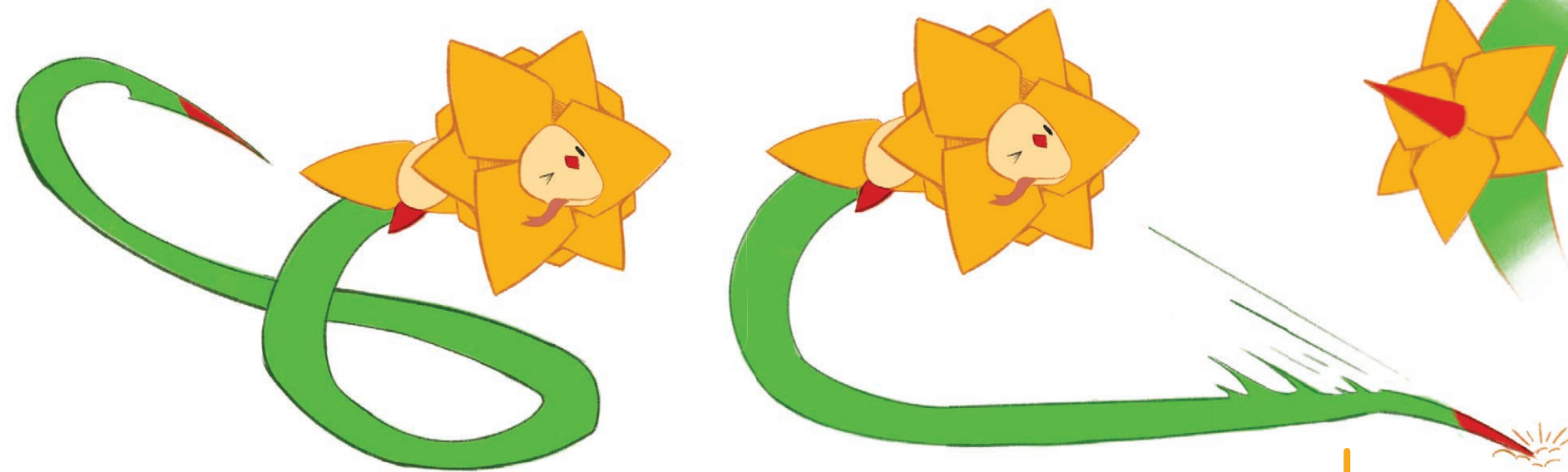
Their head fans out to collect and store up sunlight.



Rhyllis can release sunlight in the form of devastating attacks!



Rhyllis can perform rapid thrust attacks with their tail!



Rhyllis can plant flowers in the ground, which act as sentries that have Rhyllis's thorn and beam attacks.







Loch

# Initial Concept

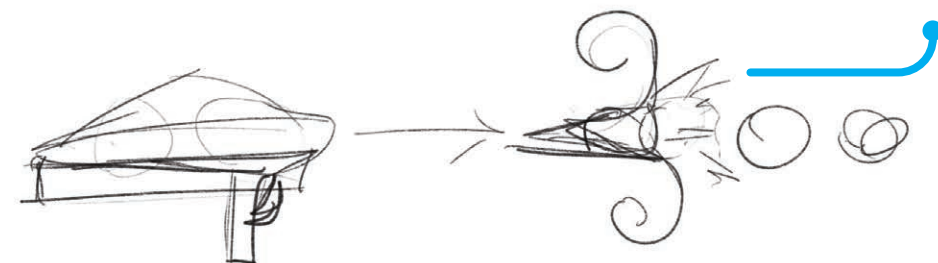
Loch had very troubled design cycle at the start. Their design process was so troubled, in fact, that they were originally going to be a completely different character.

The plan was for them to be a sort of arms master, who relied on different makeshift weapons inspired by the way plants spread their seeds. They were also going to have a distinctly insectile appearance that was repurposed for a different character later on.

However, this idea ran into an issue of complexity. If I was making an arms master, what would all of their weapons look like? How would they remain consistent with my idea to have them be based on the methods that plants spread their seeds? After asking myself these questions, I realized that this character was going to be a much larger undertaking than my other ones and I didn't want to get so bogged down on one character that it caused my overall project to suffer, so I wound up scrapping the concept and started again.



*I had one good weapon design idea, based on how a certain plant will blast its seeds away when it starts being eaten.*



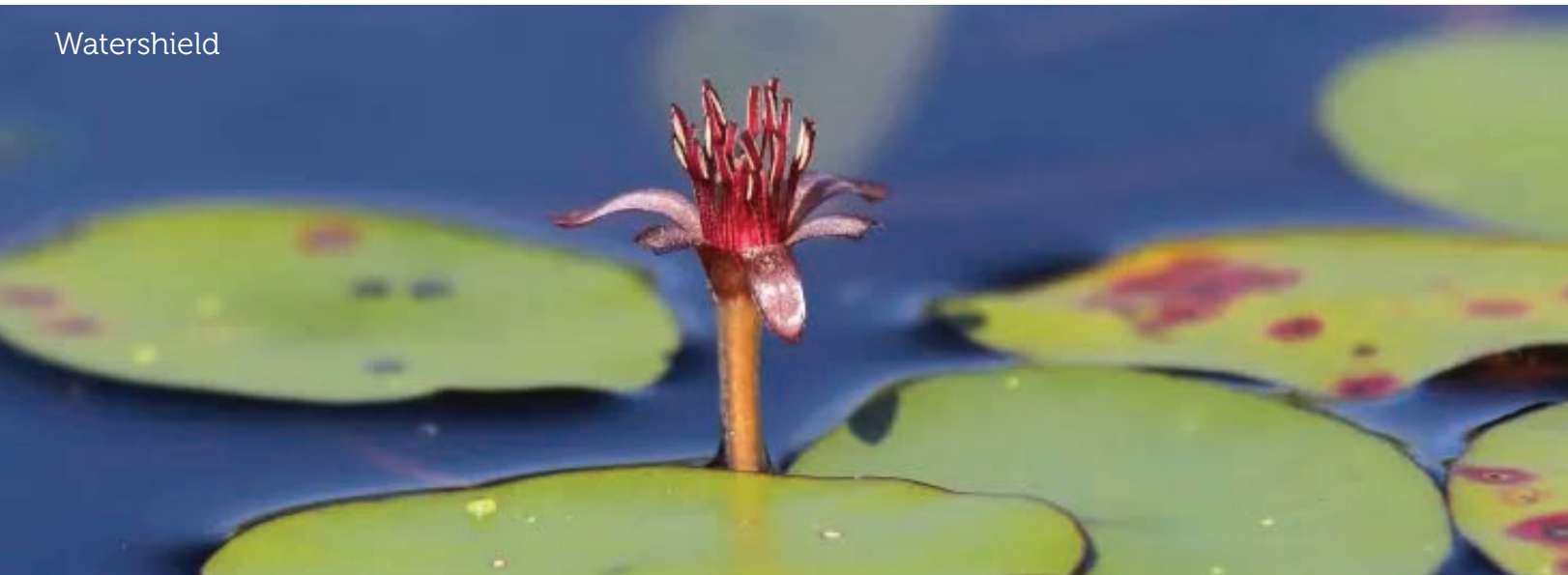


# Inspiration

I decided to see if I could come up with a character based around water plants. I researched examples of water plants that could I felt I could collage into an interesting character design.

I wound up getting inspired by water lotuses, duckweed, lily pads, mangrove trees, and watershield. They all had either interesting shapes or useful functionalities that I could incorporate into a video game character.

Watershield



Lily Pads



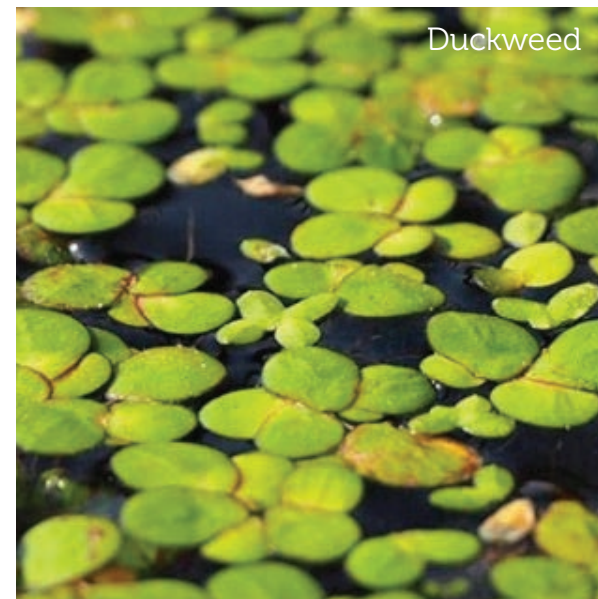
Mangrove Tree



Water Lotus



Duckweed





# Visual Development

After researching the plants I wanted to collage together in my design, I decided to come up with a gameplay plan for it. The idea is that Loch is a defensive character. They should be able to take more hits than other characters so they can deal damage without as much consequence. To that end, I created two character designs.

The first one was about having a weak point. This design ensures that Loch doesn't take damage unless he gets hit in his core, which you can see in the center of his body. I wanted to really draw attention to this core by having it lead to the most distinguishing design element present, the Water Lotus where his neck would be.

To protect his core, he has watershields inside of his body that can absorb a hit that would normally damage his core. When a shield gets hit, it goes away, but it also regenerates over time.

The other design I made was based on a mangrove tree. I like this design a lot, but I had a much clearer gameplay concept for Loch's other design.

*It's a pretty unrefined start, but it was a good outline for the final character. Pretty much everything remained intact during the final rendering.*



*This design's main body is a tree with water cloaking the arms and chest. The leaves poke out the top of the water similar to the flower on Loch's final design.*





# Final Design

Loch's final design was a matter of taking what was already working and refining it to a finished point. I also tried to use color to designate the importance of their core. By making it a bright pink in contrast to the blue of the water, it stands out as an important element. This way, the player is reminded of what to protect.

*Loch's body is made up almost entirely of water! They can also manipulate water into attacks and use it to move around.*

*Water shields inside Loch's body protect his core. If they are hit, they are destroyed. Destroyed water shields regenerate over time.*

*Loch's core is the thing that allows their body to stay together. Without it, Loch would fall apart.*

*The seeds in Loch's arms are his primary weapons. They can grow into a variety of aquatic plants with different applications.*



# Abilities

The seeds in their arms act turn into different aquatic plants. Some things they can morph into include a lily pad platform, a mangrove root spear, and a kelp rope.



They can use the water from their body to lob at foes.

They aren't very agile on their own, but they can use water to get around faster.



Venu



# Inspiration

The idea that guided my thought process the whole time when I was designing Venu was that I wanted this character to be based around carnivorous plants. I had three different kinds of plants in mind that I could meld together into a harmonious character design.

The first was the most well-known carnivorous plant, the Venus Fly Trap. With its distinctly mouth-like appendages, it's easy to understand why it has such a strong identity. However, I wanted my character to embody multiple kinds of carnivorous plants, which is where the other two plants come in.

The Sundew is another less common, but equally interesting species of carnivorous plant. Instead of using a mouth or anything even resembling a mouth to catch its prey, it acts like a glue trap. It has sweet-smelling tentacles all over its leaves which attract prey, and when they get too close, they get stuck to the tentacles and eventually drown in the

substance on the tentacles' tips<sup>1</sup>. I felt like the concept of using these sticky tentacles in the design of my character could lend towards some fun gameplay abilities.

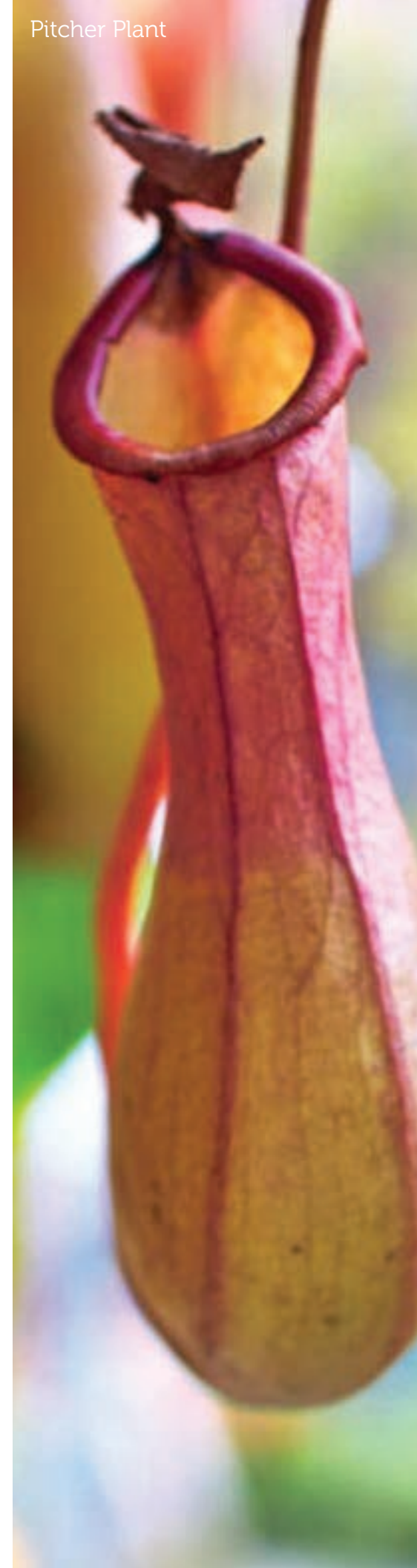
Lastly there was the Pitcher Plant. This plant has a very simple design in nature. It acts like a pitfall trap for insects. When an insect tries to drink the nectar that it secretes around its opening, it slips, falls in, and drowns in its digestive juices<sup>2</sup>. This one is probably the least assuming of the carnivorous plants, but it actually became the most important aspect of my final design.



Venus fly trap



Sundew



Pitcher Plant

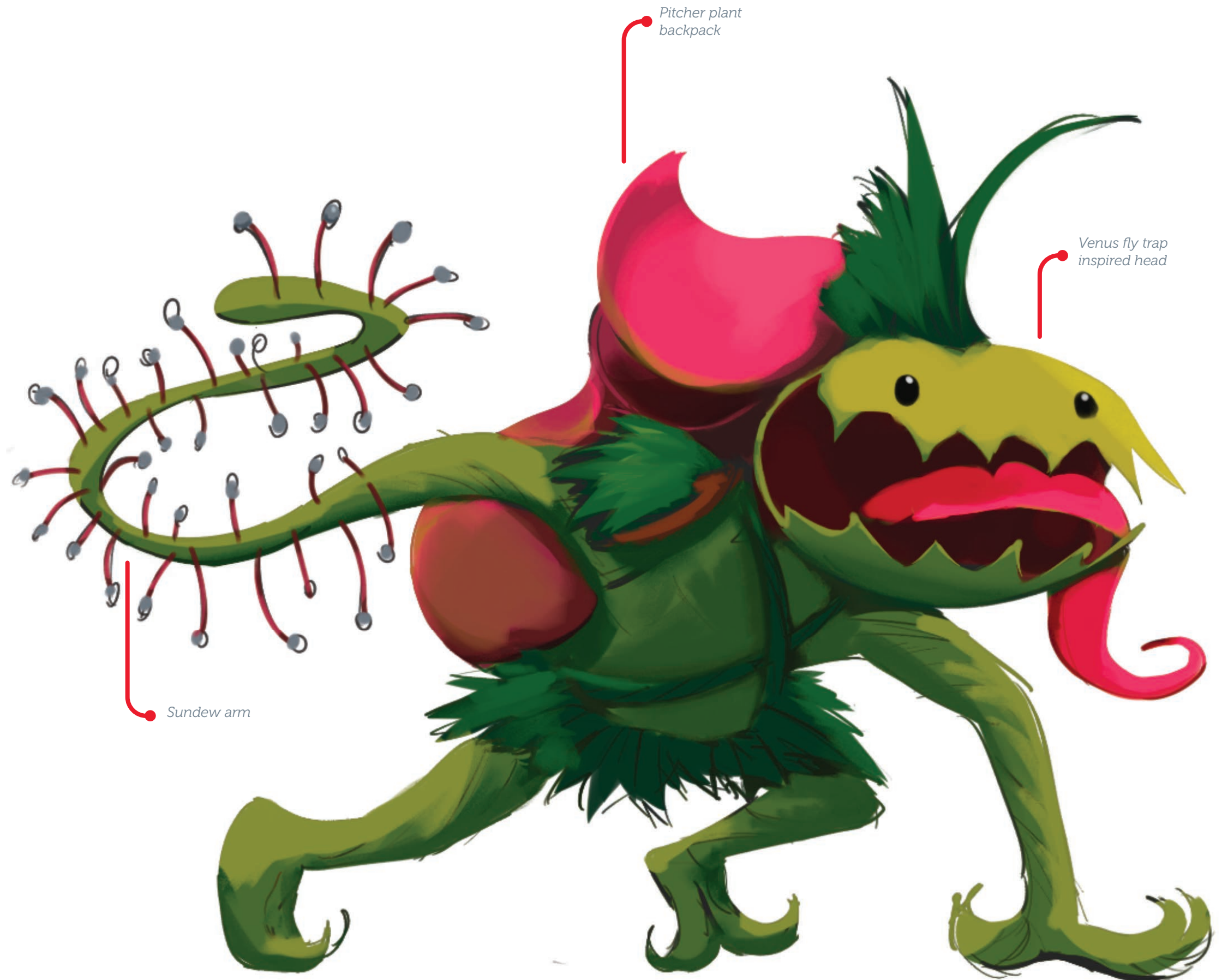


# Visual Development

This was not just my first attempt at designing this character, but also my first design for this project. My plan was to make this character into a dumb, savage, but ultimately endearing brawler. This design was an important first step in cementing all the details that I wanted to include in the final concept. A lot of parts in this initial design make it into the final one, though they get shuffled around a lot.

The three main elements that I wanted to include are the venus fly trap face, the pitcher plant backpack, and the sundew tentacle arm. The idea of the gameplay was that Venu would be able to grapple enemies with his sundew arm, pull them in close, and use strong melee attacks to defeat them and stuff them into their pouch. Enemies in the pouch would recover Venu's health over time and grant temporary power ups, like an attack or speed buff.

However, this design is far from perfect. It technically meets all of the practical criteria that I wanted, but it's missing the sense of appeal that really sells a character. This first render was to show an example of the rendering style that I thought I could pull off for this project, so I was always planning on redoing this design anyways.

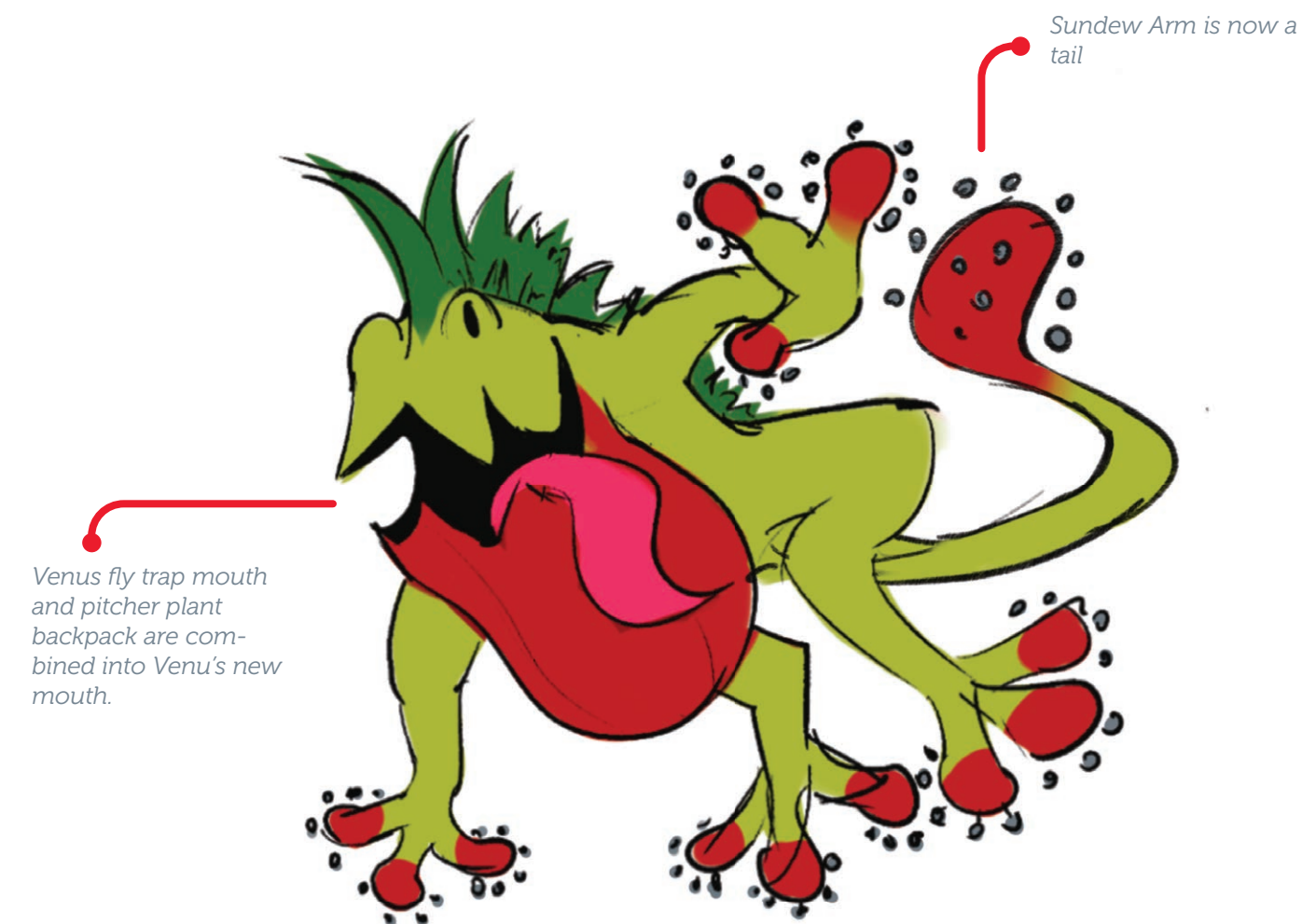


# Redesign

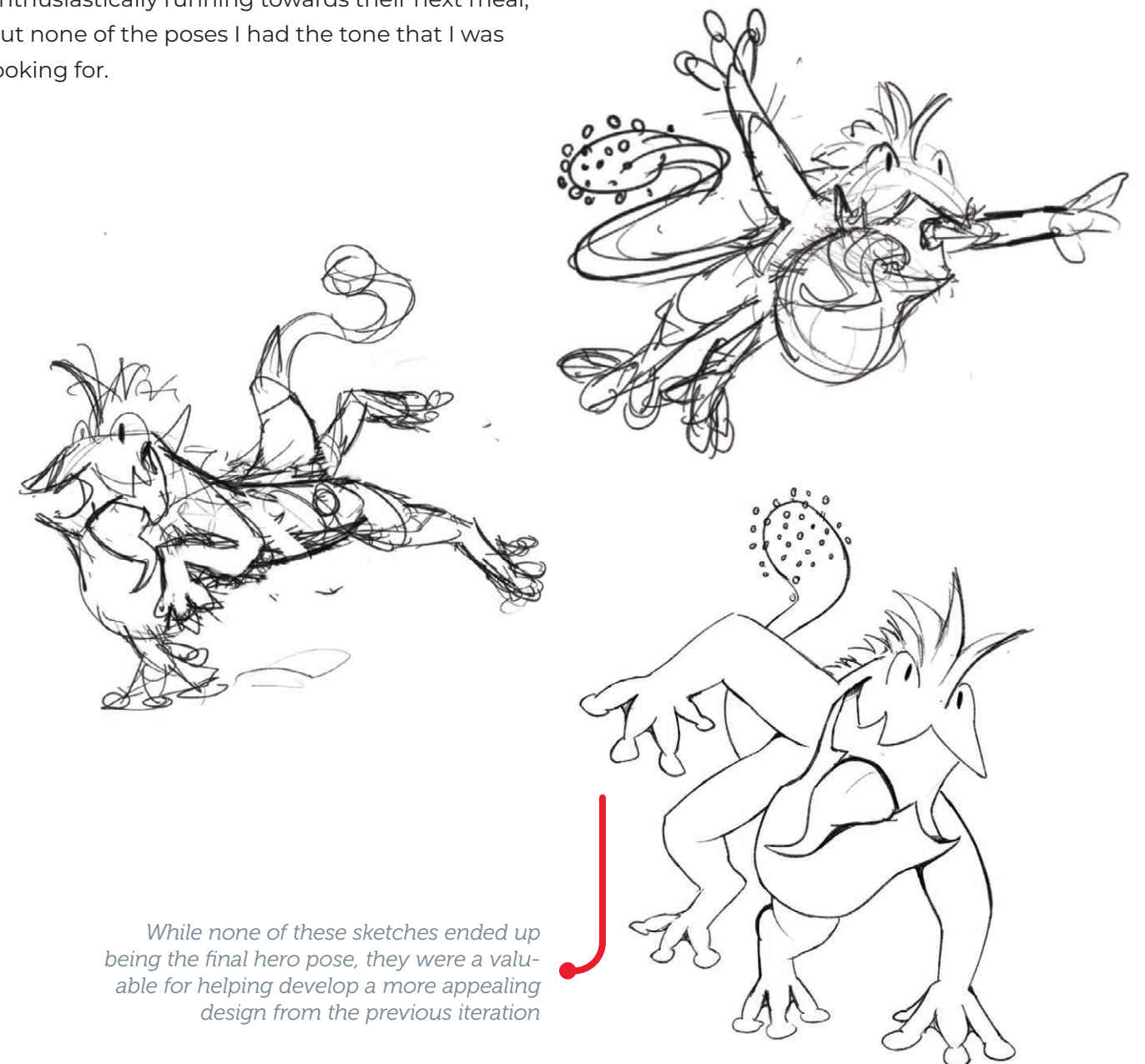
It was after the shift in my design plan when I was working on Rhyllis that I came back to my initial design for Venu and tweaked it into the form that I wound up using in my final render and concept.

I started by turning Venu into a less humanoid figure. I had the idea to make Venu more frog-like from learning about the voracious

eating habits of African Bullfrogs. Plus, by making Venu more frog-like, I could incorporate the Pitcher Plant pouch directly into their body. Instead of a backpack, it is now a pouch under its chin. I feel that this works a lot better with the concept by letting Venu actually eat enemies instead of putting them in a backpack that digests them.



After I redesigned Venu again, I went to work on the final render. However, I was still running into an issue. I was struggling to capture the movement of the character. I wanted to capture the energy that I envisioned Venu having. They're supposed to be a feral carnivore that is enthusiastically running towards their next meal, but none of the poses I had the tone that I was looking for.





# Final Design

In the hero pose, I finally managed to capture the energy I was searching for, while also incorporating all the aspects that I envisioned. There are a few important changes from my last iteration. I changed the eyes to no longer

be beady and the Sundew tail was getting to be too complex, so I reduced it to a single tentacle. This was an especially helpful change, as it made the tail both easier to draw and improved the design on the whole.

*Fingertips are soft. They are rounded in the air, but squish when pressed up against a surface*

*The design has been simplified to only one sundew tentacle for the tail*

*The tongue spends a lot of time outside Venu's mouth, so it has its own distinct shape*

*The pitcher plant chin pouch and venus fly trap mouth is now combined into a single character element.*



# Abilities

They use their jaws to perform powerful biting attacks!

SNAP!

They use their sticky tail to grapple enemies from afar.

Depending on the enemy they eat, Venu gets different stat buffs.

An Oyel is usually pretty unappetizing, but Venu can eat and digest anything that fits in their mouth.



Mico





# Inspiration

With Mico, I also had a pretty vague concept of the character going into it. I knew that I wanted the character to be inspired by fungus, and that they were probably going to be a mage-like character, but that all I had planned at the time.

During my initial research, I looked up a lot of different types of mushrooms. I found a few types of mushrooms that had appealing aesthetic qualities that I could work into a design. In particular, I was inspired by the shapes of the oyster mushroom and yellow unicorn entomala, and net of the bridal veil stinkhorn.

However, the biggest breakthrough from my research didn't come from a mushroom, but from an insect. I found out that leafcutter ants don't eat the leaves that they cut. Instead, they take the leaves down to their nest and use them to cultivate a special kind of fungus, which they use as a food source for ant larvae<sup>3</sup>. This symbiotic relationship between ants and fungus is what inspired the gameplay plan for my character.



Oyster Mushroom



Yellow Unicorn  
Entomala



Bridal Veil  
Stinkhorn



Leafcutter Ant



# Initial Concept

I landed on the concept of producing a nervous scout-like character with a staff and a lantern. The staff would attack with mushroom based spells and the lantern would control nearby insects to attack my initial idea.

This was my example render for a second round of concept development. My initial plan for the style was to rely on a lot more rim lighting, to put my illustrations on dark backgrounds, and to render things without an outline. I ended up deciding against this choice due to both time constraints and because the renders wouldn't be nearly as versatile if I did it this way.

Again, I was planning on redesigning this one once I had gotten into the weeds on designing the other characters first.

*I didn't have a solid color scheme yet, so I gave Mico a turquoise cap instead of the purple one I decided on later.*

*Clothing was simple, but not really meshing well with the concept. This was also a deciding factor in my choice to avoid using man-made things.*

*I tried doing something fun by adding in a stinkhorn veil on Mico's coat, but the shapes were too complex and I eventually dropped the element for my final render.*



# Visual Development

After my decision to avoid using man made things, I came back to this character and completely redesigned it. Two out of my three other characters were based on animals, so I decided to do that for Mico, too.

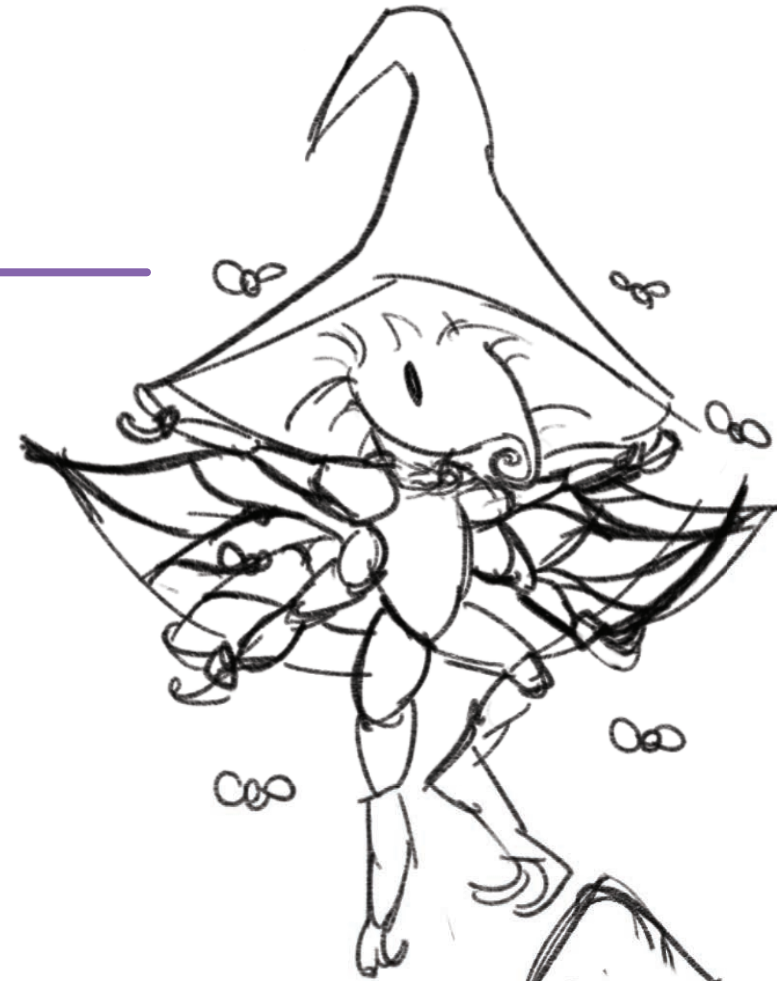
I based Mico's design on general insectile traits, and I threw a fair bit of concepts at the wall for this round of designing. Maybe Mico could be a centaur-insect hybrid. Maybe they could fly using wings that look like a stinkhorn's veil. Maybe they have the veil but it's like a mosquito net to parallel how they rely on bugs as a game-play element. Or maybe I was thinking too hard about all of it and I should just try to do a simple, but appealing design.

Despite having a fairly clear picture of the design at this point, I had a hard time narrowing down the concepts I used up to this point.

*I like the unique style of the body in this one, but the design of the face is kind of awkward. I prefer the proboscis faces on the other designs more.*



*This design is unique, but the wings pose a gameplay issue. In a platformer, having wings could potentially break the design of the game.*



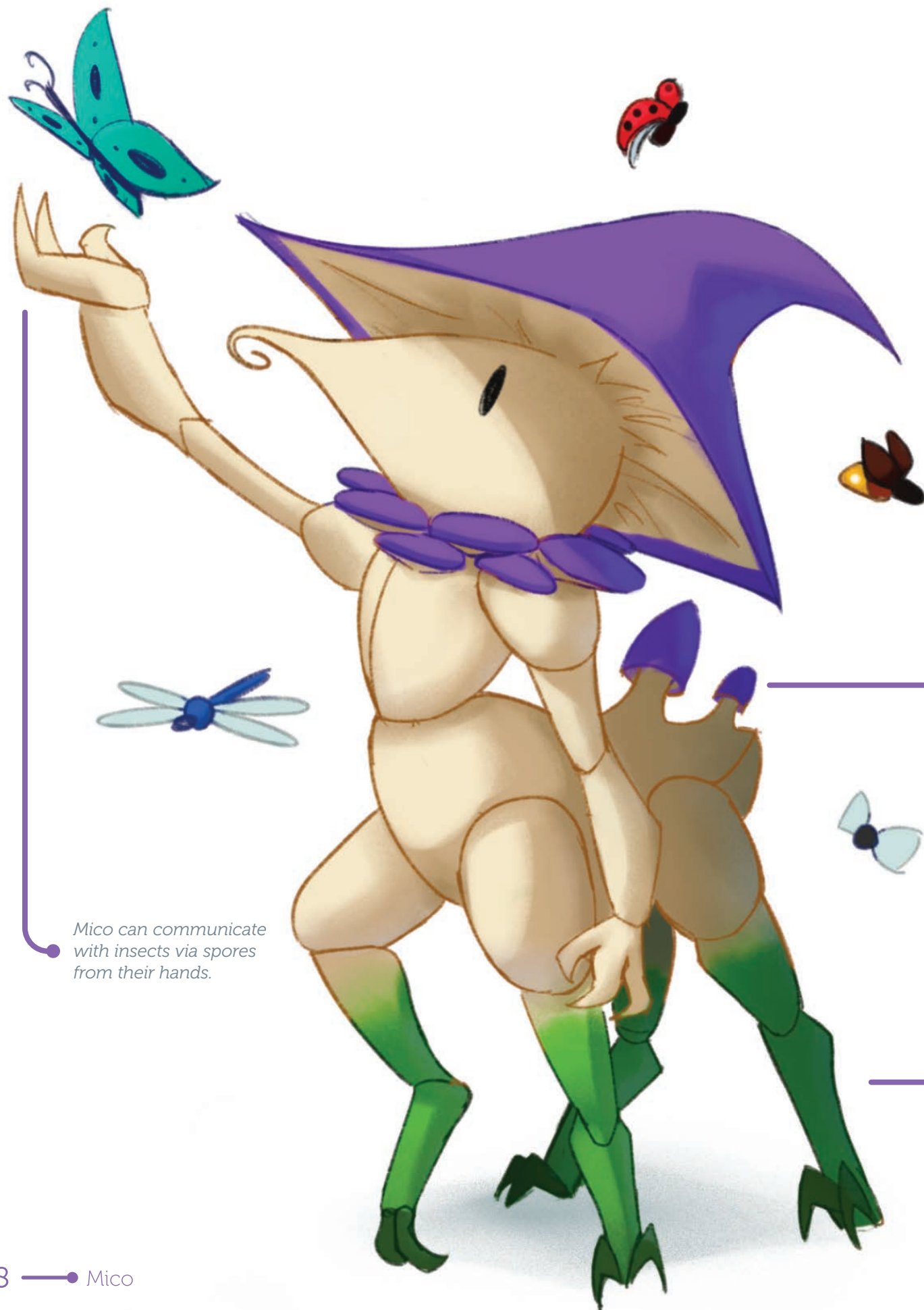
*As much as I liked the stinkhorn veil, it was too difficult to work into the final design.*





# Final Design

The final design for Mico was a combination of the centaur design and the winged design from the previous pages. I also added a collar of oyster mushrooms to make the design feel more complete and to add in a an extra spot where purple can act as an accent color. It was also during the final render that I came up with the idea for Mico to attack with a bunch of different insects instead of just with ordinary flies.



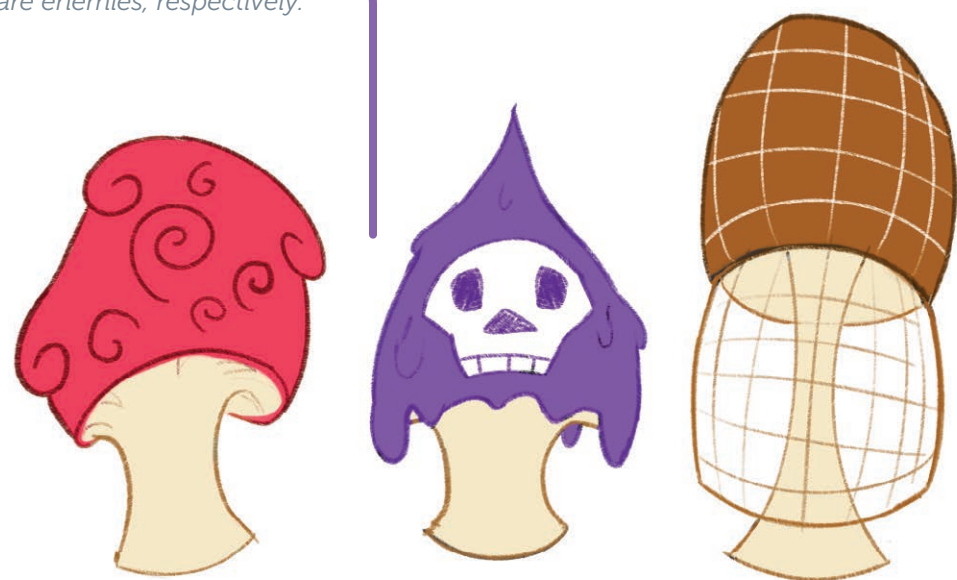
*Mico is a friend to all insects. A variety of different bugs will follow them around and aid them in battle.*

*The mushrooms on their back can be plucked and planted as traps for enemies.*

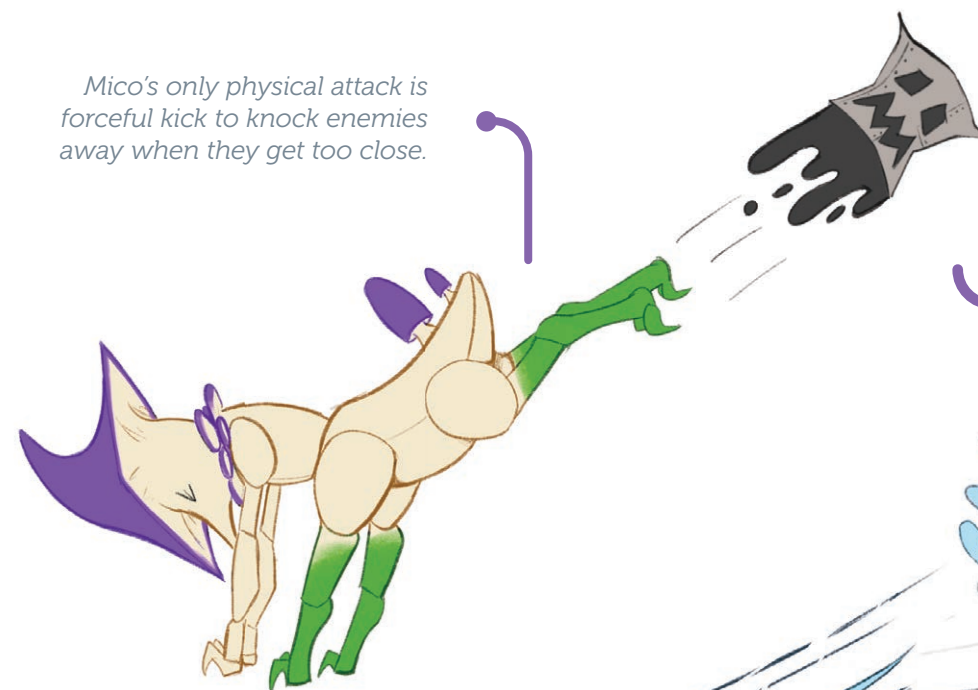
*Mico's legs are built for running. They are a long-range fighter that does poorly in close combat, so these help to get away from foes.*

*Mico can communicate with insects via spores from their hands.*

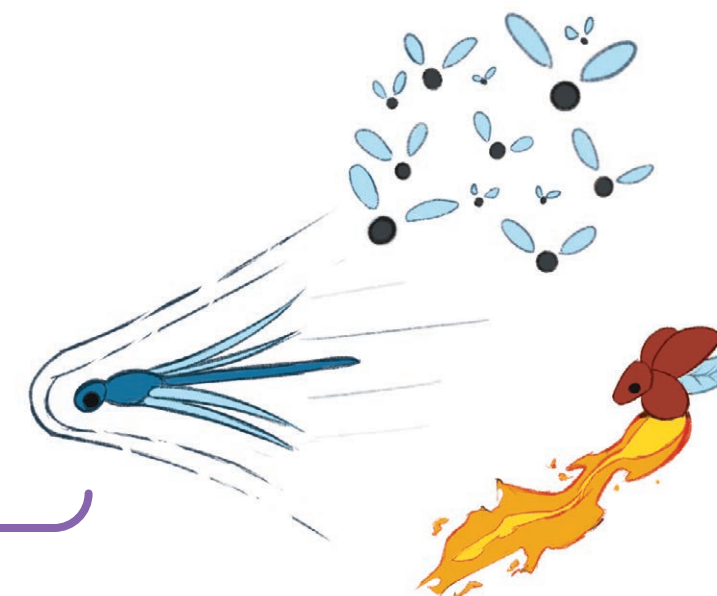
Mico's mushroom traps have a variety of effects. These mushrooms can confuse, poison, and ensnare enemies, respectively.



Mico's only physical attack is forceful kick to knock enemies away when they get too close.



Different insects attack in different ways. Flies don't do much damage, but they can attack rapidly, dragonflies can pierce armor like javelins, and fireflies can attack with fire.



## Abilities

The spores Mico blasts from their hands are strong enough to push foes back, but not enough to do any damage.



Enemies covered in Mico's spores become targets for their insects.



# Citations

## Images

### Sunflower

<https://www.provenwinners.com/plants/helianthus/sun-credible-yellow-sunflower-helianthus-hybrid>

### Daffodil

<https://www.dutchgrown.com/products/daffodil-fortissimo>

### Cluster of Daffodils

<https://www.thespruce.com/planting-and-growing-daffodils-1402136>

### Mangrove

[https://en.wikipedia.org/wiki/Mangrove\\_forest](https://en.wikipedia.org/wiki/Mangrove_forest)

### Water Lotus

<https://www.thepondguy.com/product/rosy-clouds-hardy-water-lotus/>

### Lily Pads

<https://www.southernliving.com/garden/plants/water-lily-plant>

### Duckweed

<https://hortamericas.com/blog/news/could-duckweed-be-the-next-big-vertical-farm-crop/>

### Watershield

<https://naturallycuriouswithmaryholland.wordpress.com/2015/07/31/watershield-flowering/>

### Pitcher Plant

<https://animals.sandiegozoo.org/plants/tropical-pitcher-plant>

### Venus Fly Trap

<https://cnr.ncsu.edu/news/2021/01/five-things-you-didnt-know-about-venus-fly-traps/>

### Sundew

<https://www.nwf.org/Educational-Resources/Wildlife-Guide/Plants-and-Fungi/Sundews>

### Bridal Veil Stinkhorn

<https://news.cgtn.com/news/2019-11-08/Bridal-veil-stinkhorn-A-girlish-mushroom-that-loves-to-wear-skirt--Ls1IQo1IE8/index.html>

### Yellow Unicorn Entomala

[https://www.indianamushrooms.com/entoloma\\_murrayi.html](https://www.indianamushrooms.com/entoloma_murrayi.html)

### Oyster Mushrooms

<https://www.healthline.com/nutrition/oyster-mushroom-benefits>

### Leafcutter Ant

[https://en.wikipedia.org/wiki/Leafcutter\\_ant](https://en.wikipedia.org/wiki/Leafcutter_ant)

## Information

### 1. Sundew

<https://www.britannica.com/plant/sundew>

### 2. Pitcher Plant

<https://www.britannica.com/plant/pitcher-plant>

### 3. Leafcutter Ant

<https://www.mcgill.ca/oss/article/did-you-know/did-you-know-leafcutter-ants-are-farmers-who-grow-fungi>

