

PLANET PEOPLE

MACKENZIE KARWAS

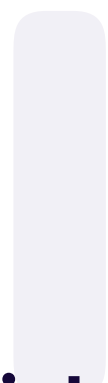
PROCESS DECK

SYMBIOTIC RELATIONSHIPS ABC'S

concept

At a young age it is difficult to find learning fun and even more difficult to keep young children engaged in lesson plans. The ABC's of symbiotic relationships strives to keep kids active, social and improve their understanding of relationships within the ecosystem. Our project is targeted towards early elementary and primary school kids as well as teachers.

LETTERS



imperial shrimp

imperial shrimp
is paired with
sea cucumber



microhylid

microhylid is
paired with
giant tarantula



vulture

vulture is paired
with quoll

RESEARCH

what is a symbiotic relationship?

Symbiotic relationships are a special type of interaction between species. Sometimes beneficial, sometimes harmful, these relationships are essential to many organisms and ecosystems, and they provide a balance that can only be achieved by working together. There are three types of relationships, mutualistic, parasitic and commensalism. For this project we chose to focus on mutualistic and commensalistic relationships.

RESEARCH

mutualism

Mutualism occurs when both species benefit from the interaction. Because mutualism is beneficial to both species involved, there are a wide variety of mutualistic interactions, and these are most common in nature. All three of my pairings have a mutual relationship.

RESEARCH

parasitism

Parasitism is a symbiotic relationship in which one species (the parasite) benefits while the other species (the host) is harmed. Many species of animals are parasites, at least during some stage of their life. Most species are also hosts to one or more parasites.

RESEARCH

commensalism

Commensalism is a symbiotic relationship in which one species benefits while the other species is not affected. One species typically uses the other for a purpose other than food.

SOURCES

study.com

<https://study.com/academy/lesson/symbiotic-relationship-definition-examples-quiz.html>

ck-12

https://www.ck12.org/book/CBSE_Biology_Book_Class_XII/section/17.2/

teachers pay teachers

<https://www.teacherspayteachers.com/Product/Symbiosis-Sort-Parasitism-Mutualism-Commensalism-1545571>

PROJECT GOALS

ease

provide teachers with a tool to educate students or simply pair them up for another activity

educate

educate kids on symbiotic relationships and eco systems

inspire

each pack of cards comes with concept cards in hopes to give children a deeper meaning to the game

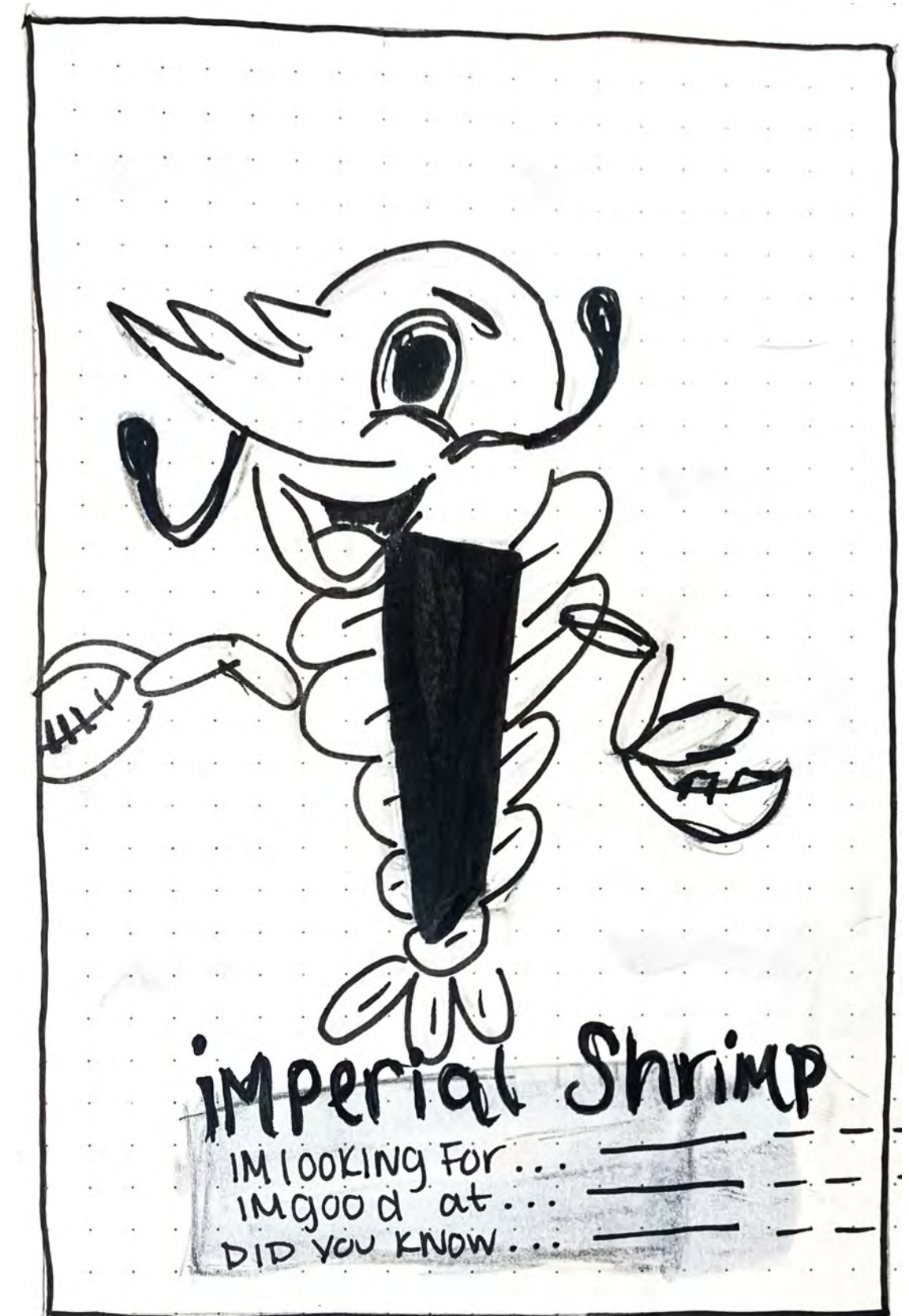
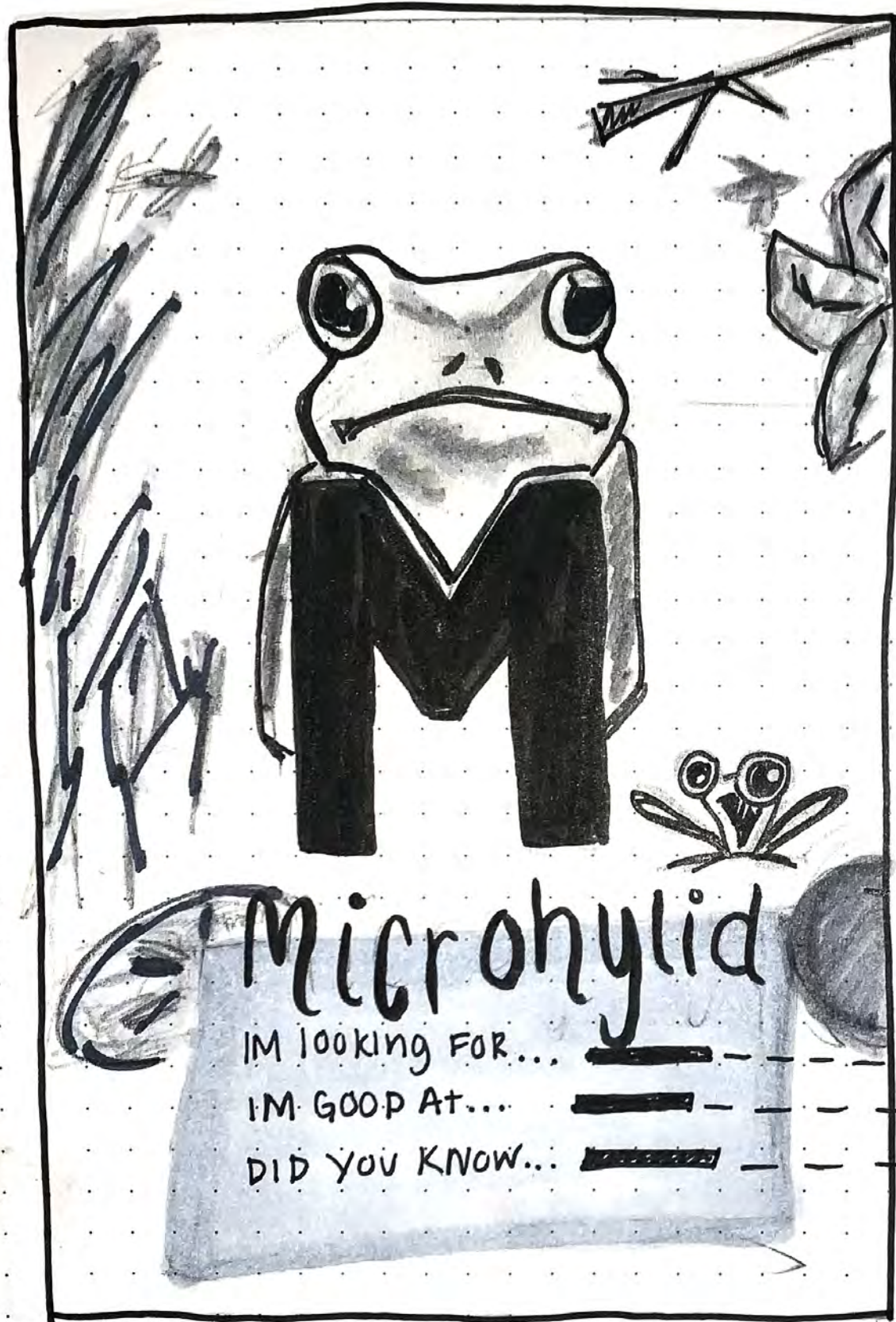
PROJECT GOALS

overall goal

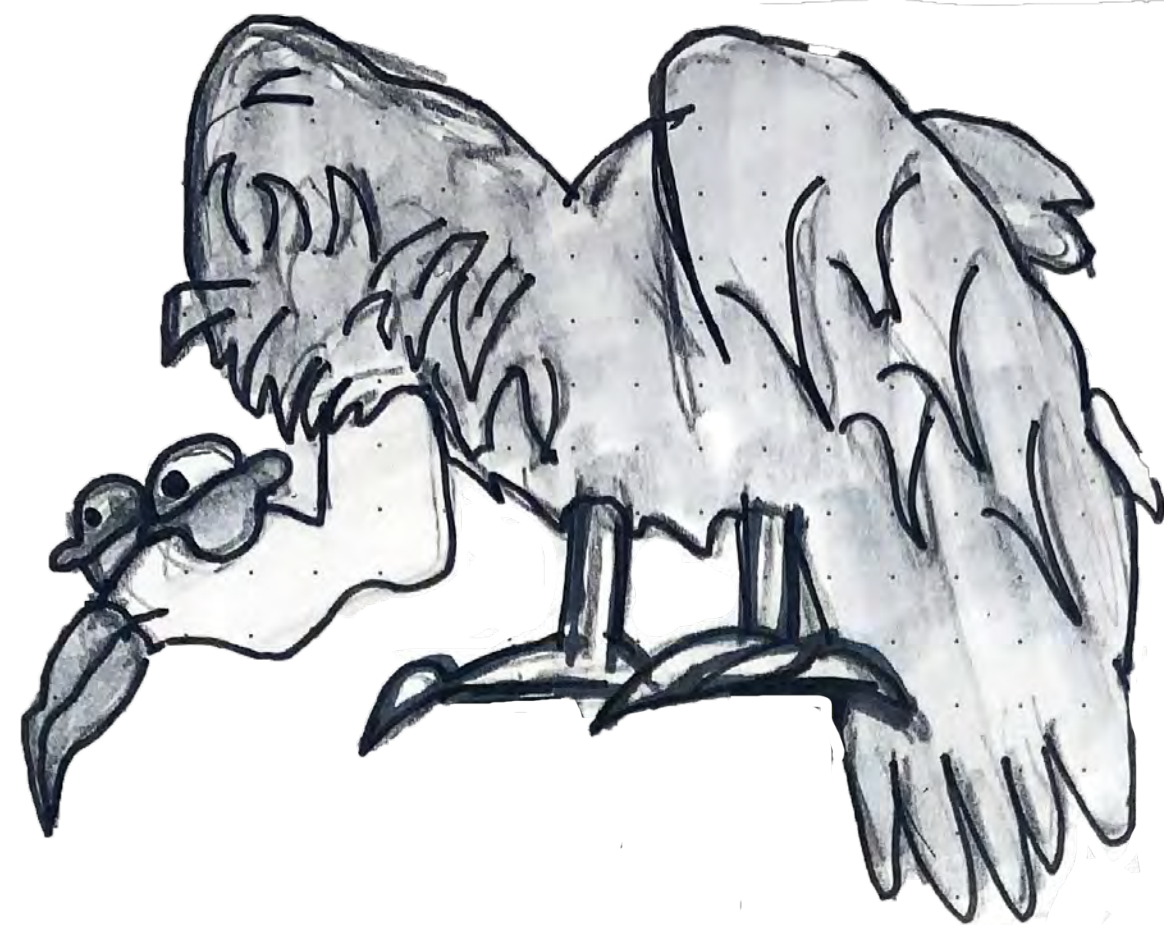
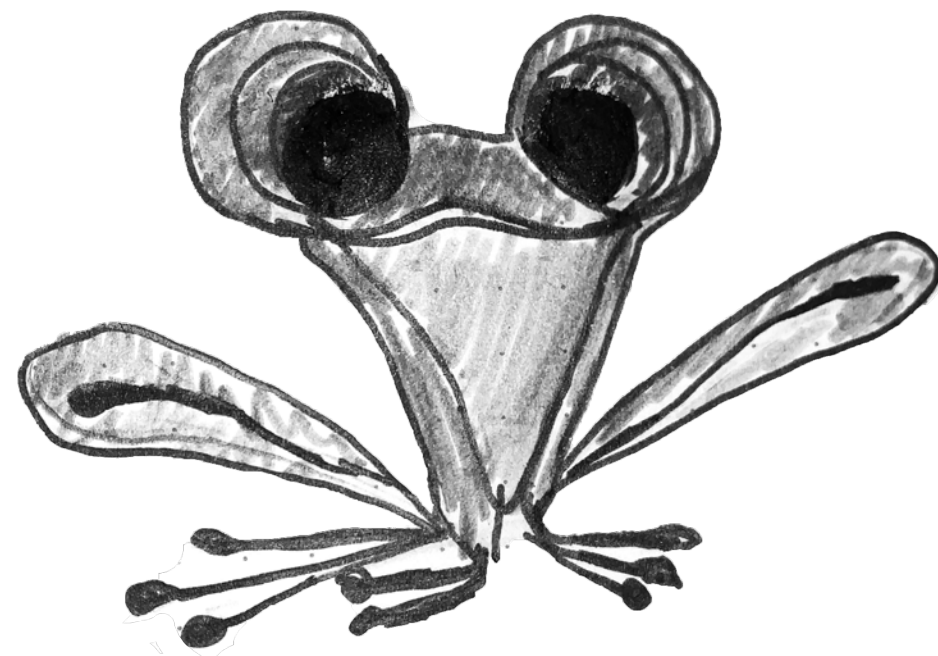
Our hope is that children will find their matching pair, learn about team work and a little something about different eco systems. In order for the game to be successful each student is given at least one card and reads the clues in order to find their match. The game also gives clues such as colors and QR codes to make sure you found your match.

SKETCHES





ORIGINAL ASSETS

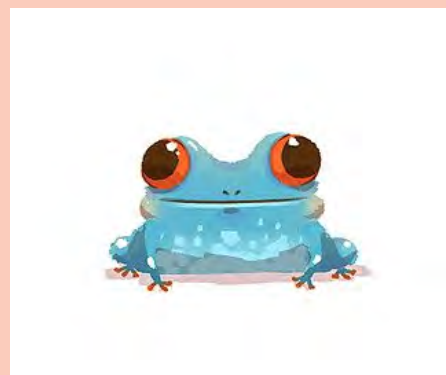


VISUAL STYLE

concept

For each card I sat down with my team members that paired with me and chose a general color pallet and theme. We each decided to create our cards in a different style. When it came to designing each card all three of my letters had a different visual direction as well. I created a mood board and color pallet personalized to each letter.

MICROHYLID



**frog
&toad**

rusted
autumn
natural
free-hand
messy

moodboard

IMPERIAL SHRIMP



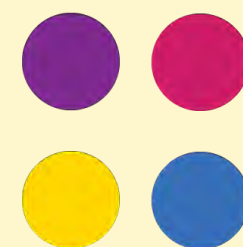
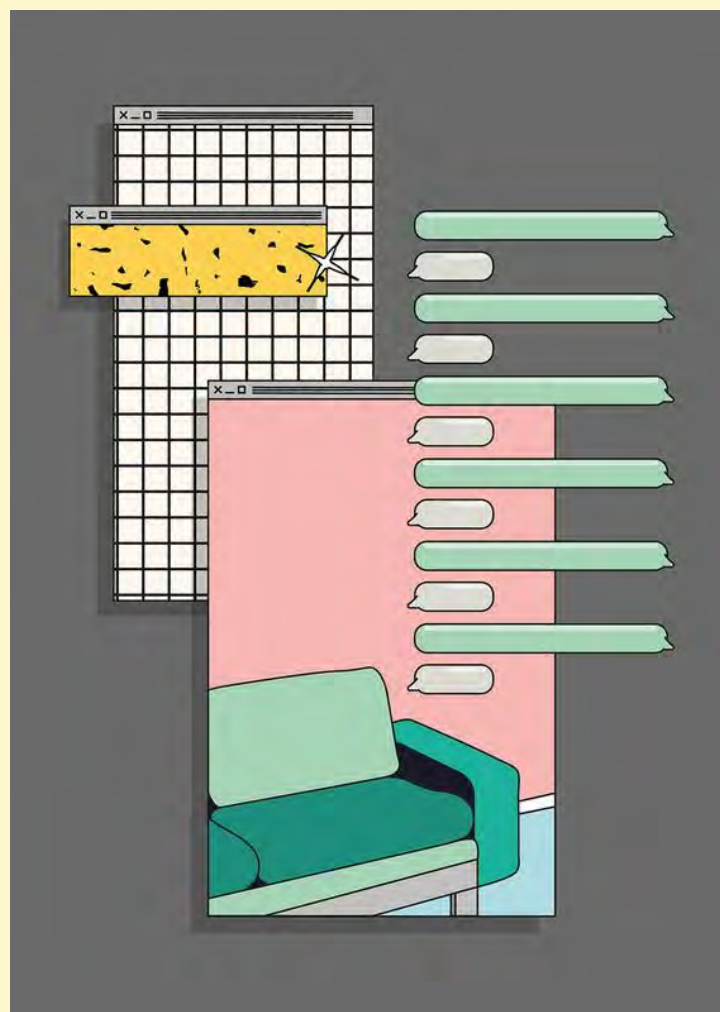
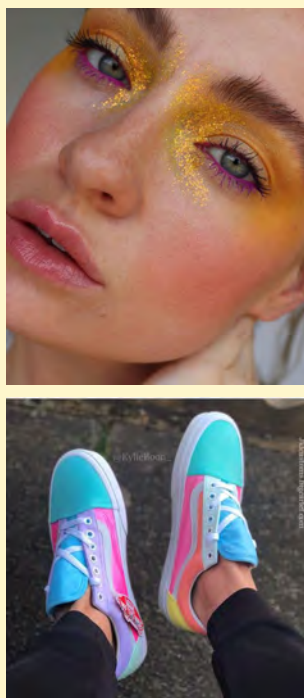
free time



muted
home-grown
childish
obscure
poised

moodboard

VULTURE



doodle pop

illustrative
personality
bubbly
comical
dramatic
vibrant

moodboard

ORIGINAL CARD CONTENT

letter

v– vulture
paired with quoll
working with Jackie

style

vibrant colors
pink, purple, yellow,
blue, with shading
cartoon illustrations
exaggerated drawing

content

I am looking for...**a
provider**
I am good at
...**destroying bacteria
and breaking down the
bones of carcasses.**
Did you know...**the
collective noun for
vultures is volt.**

ORIGINAL CARD CONTENT

letter

I- imperial shrimp
paired with sea cucumber
working with Andrew

style

muted colors
olive green, blues,
peach, salmon
hand drawn, crayon
effect homemade
illustrations

content

I am looking for...***a ride***
I am good at ... ***eating***
bacteria and cleaning
the ocean
Did you know...***I have 10***
legs!

ORIGINAL CARD CONTENT

letter

m- microhylid
paired with giant
tarantula
working with Liam

style

rustic, earthy colors
coral, navy blue,
seaweed green, mustard
yellow
watercolor and printed
style. Hand drawn /
painted
inspired by Frog & Toad

content

I am looking
for...**protection**
I am good at ...**eating**
invertebrates attracted
to my matches prey
Did you know...**I am only**
10mm in size!

TEACHER INTERVIEW

who

I interviewed Lisa Karwas a 3rd, 4th, 5th grade art education teacher

what

what can a game bring to the classroom? A fun way for kids to interact. She would like to see **more digital** games or apps for kids in school. She wants to see **versatility** in the classroom.

where

Kids are in and out of her classroom. She needs something **quick** and **easy** that will not require a lot of set up or clean up. She would prefer this to be a **table game** so kids are not running around.

TEACHER INTERVIEW

when

She thinks kids get distracted very easily. You have a short period of time to grab their **attention** and maintain it. A game with **quick turn around** would be ideal.

why

A game that educates or **contributes** to the **lesson plan** would be helpful. It gives the kids and teacher another **resource**.

CARD REQUIREMENTS

basic requirments

Name & Letter

description of animal physical traits & habitat

Description of relationship with partner

Fun fact about this animal

Dimensions: 4in by 6in

Hints: QR code

ITERATIONS

part 1

TEMPERATE



vulture

I am looking for...*a provider*
I am good at ... *destroying bacteria and
breaking down the bones of carcasses.*
Did you know... *the collective noun for
vultures is volt.*

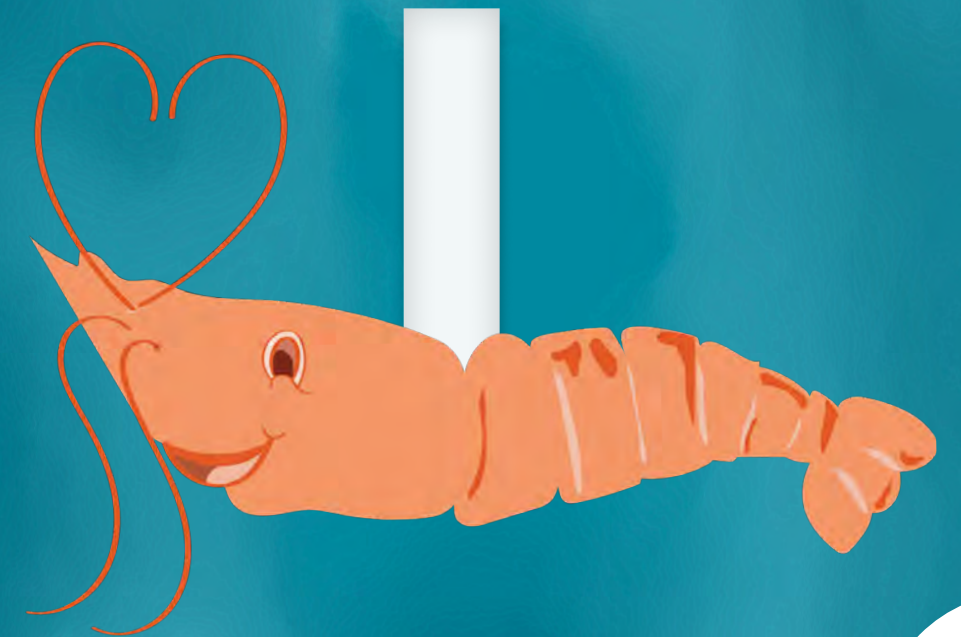
GRASSLAND



Microhylid

I am looking for...*protection*
I am good at ...*eating invertebrates
attracted to my matches prey*
Did you know...*I am only 10mm in
size!*

OCEANS



Imperial shrimp

I am looking for...*a ride in the ocean*
I am good at ...*eating bacteria and
cleaning the ocean*
Did you know...*I have 10 legs!*

ITERATIONS

part 2

OCEANS



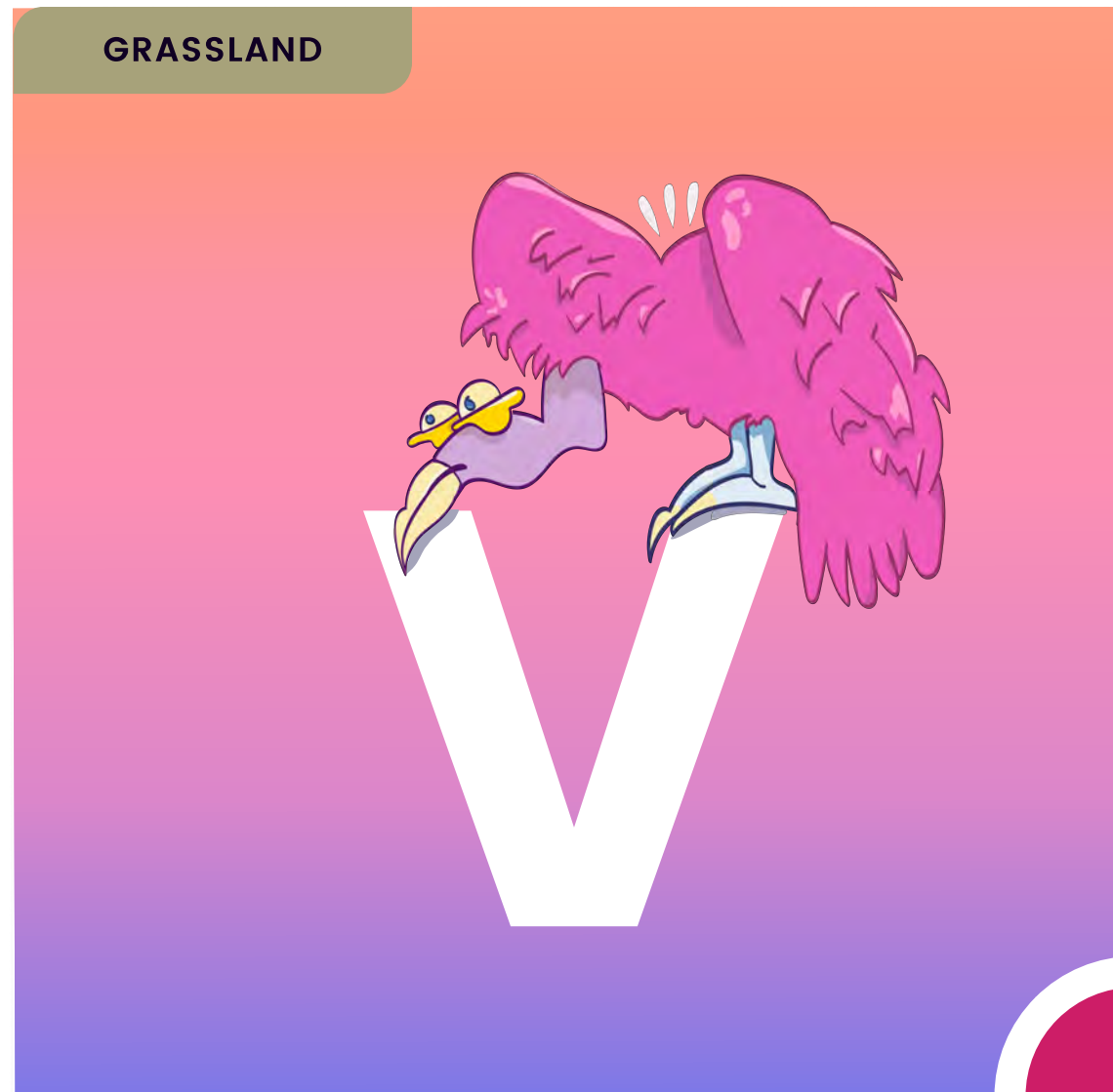
Imperial shrimp

I am looking for...*a ride in the ocean*

I am good at ...*eating bacteria and
cleaning the ocean*

Did you know...*I have 10 legs!*

GRASSLAND



vulture

I am looking for...*a provider*

I am good at ...*destroying bacteria and
breaking down the bones of carcasses.*

Did you know... *the collective noun for
vultures is volt.*

TROPICAL



Microhylid

I am looking for...*protection*

I am good at ...*eating invertebrates
attracted to my matches prey*

Did you know...*I am only 10mm in
size!*


FINAL CARD

P.26

mackenzie karwas

OCEANS

T

An illustration of an Imperial Shrimp, a small orange crustacean with long antennae and a segmented body, riding on the index finger of a large pink hand. The background is a deep blue ocean with light rays filtering down. There are colorful coral reefs in shades of orange, red, and blue. A small circular inset in the bottom right corner shows a stylized map of the world with green and blue continents and oceans.

Imperial Shrimp

Hey, I am an Imperial Shrimp. Just a small creature found cleaning the ocean by eating bacteria. Since I am so tiny *I am looking for a ride from my friend around the sea.*

FINAL CARD

P.27

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TROPICAL



Microhylid

Microhylid here! I am a type of small frog and live close to small bodies of water. I enjoy eating small snacks that are attracted to my prey. *Due to my small size I am looking for some protection.*

FINAL CARD

P.28

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MOUNTAINS



Vulture

Hey down there, it's me the vulture. I am a scavenging bird which means I am good at breaking down food and always looking for a tasty treat. *I am looking for some leftovers my friend left behind.*

INTERACTION GROUP CONSTRAINTS

01

For navigation purposes we will keep a wheel in the top left of the corner so users can slide through the letters.

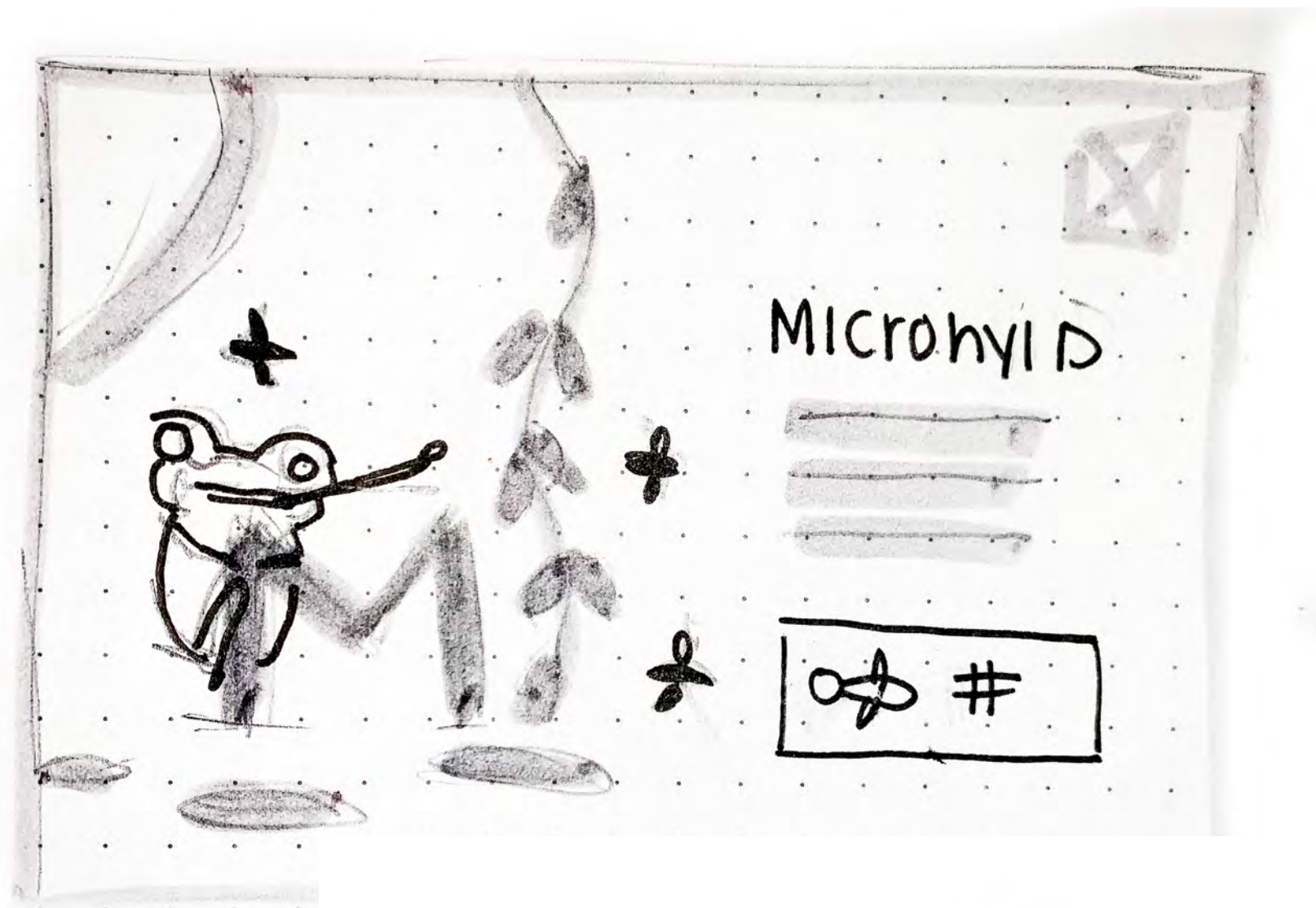
02

When the user opens the game they will be brought to a home screen. From there they can either select to view individual letters or view the whole set of cards.

03

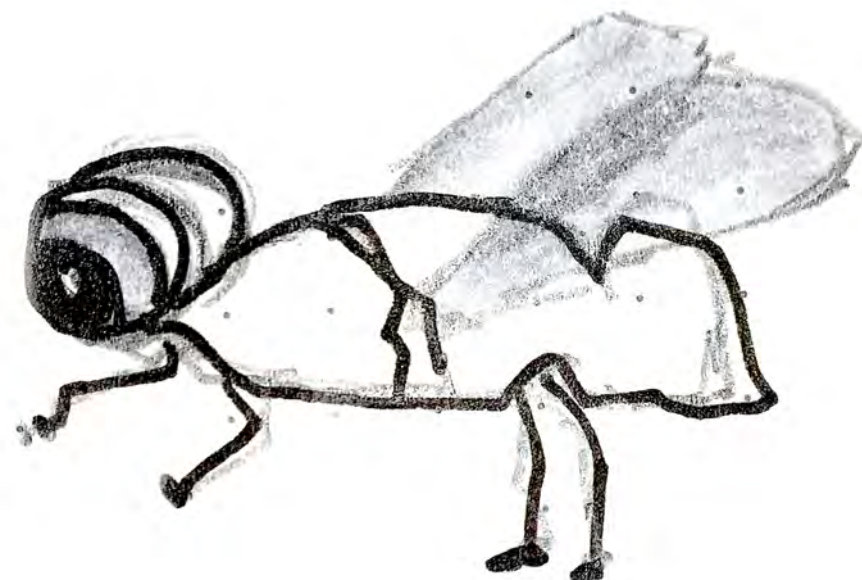
The user can also select a button (location is TBD) and the “pair” will be shown. The two cards will swoop in to the screen while the other navigation still remains.

SKETCHES



microhylid

For the interaction I want the frog to collect flies through a tap motion. The user can tap the flies and collect them in the frogs mouth. The goal is to collect the most flies in a number of time.

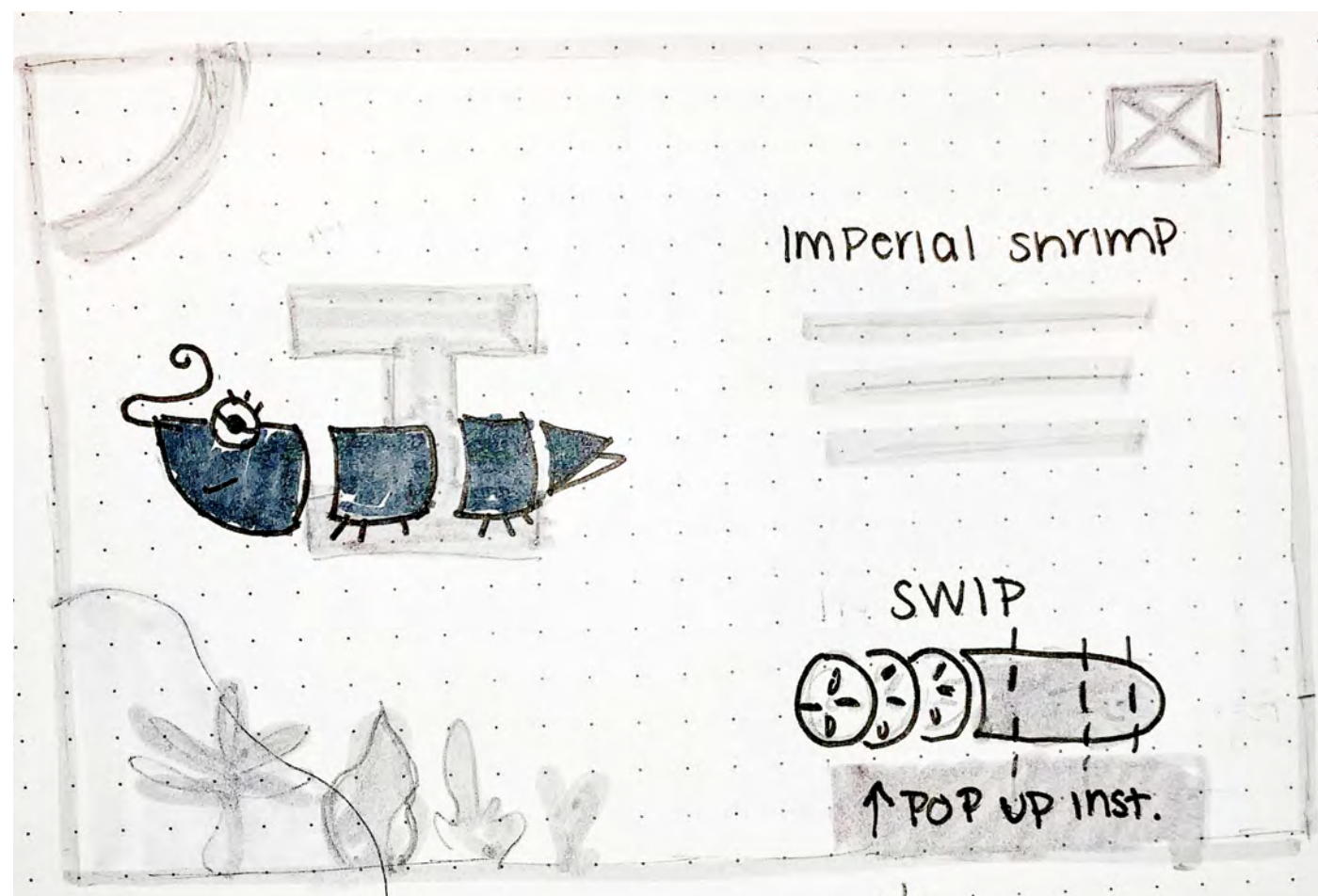


SKETCHES



vulture

SKETCHES



imperial shrimp

For the shrimp interaction I plan to have the shrimp be “hungry” and the user must slice and feed the shrimp in order for him to grow

MOUNTAINS



Vulture

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TROPICAL

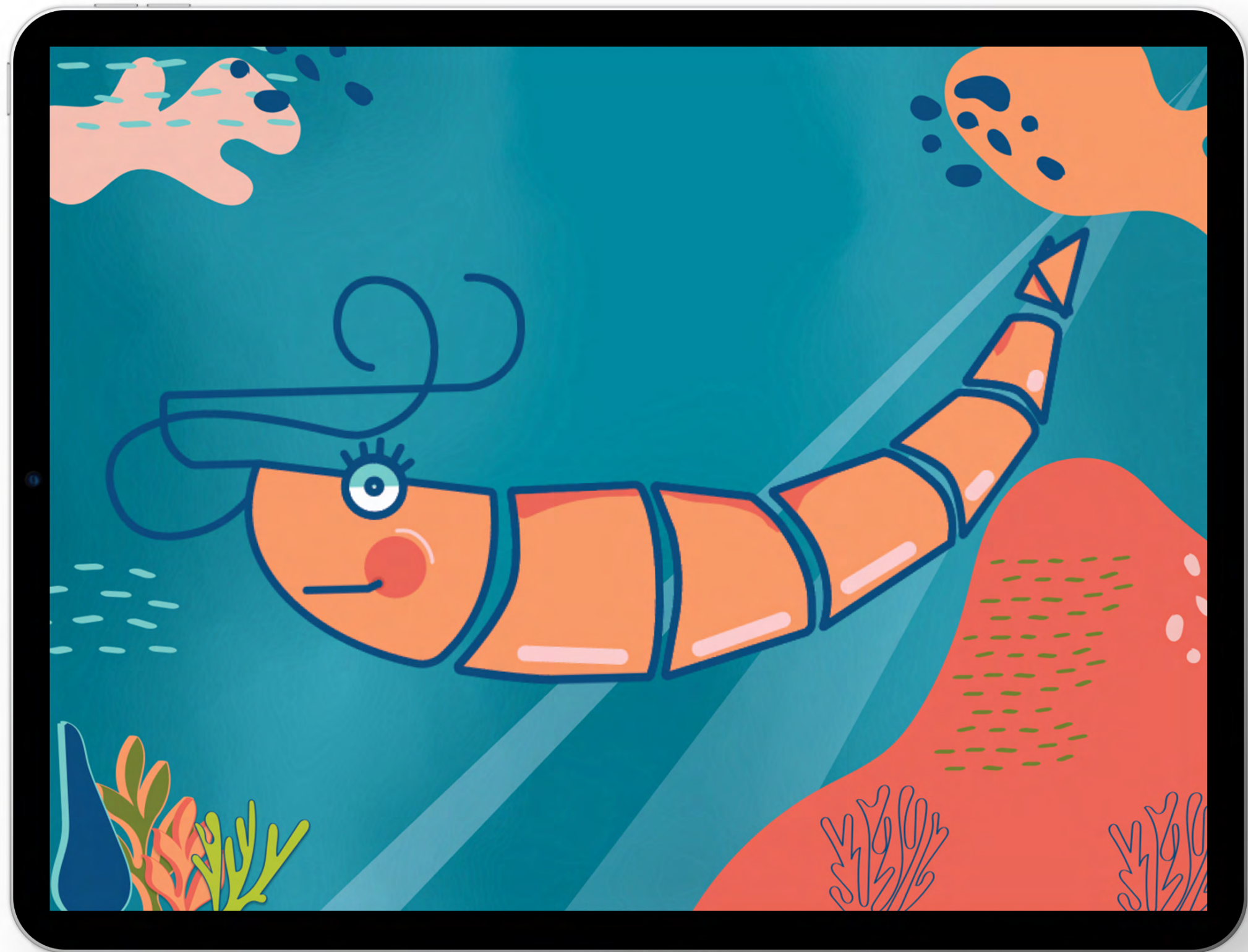


Microhylid

Microhylid here! I am a type of small frog and live close to small bodies of water. I enjoy eating small snacks that are attracted to my prey. Due to my small size I am looking for some protection.

NS

Hey, I am an Imperial Shrimp. Just a small creature found cleaning the ocean by eating bacteria. Since I am so tiny I am looking for a ride from my friend around the sea.



FINAL INTERACTIONS

P.34

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FINAL INTERACTIONS

P.35

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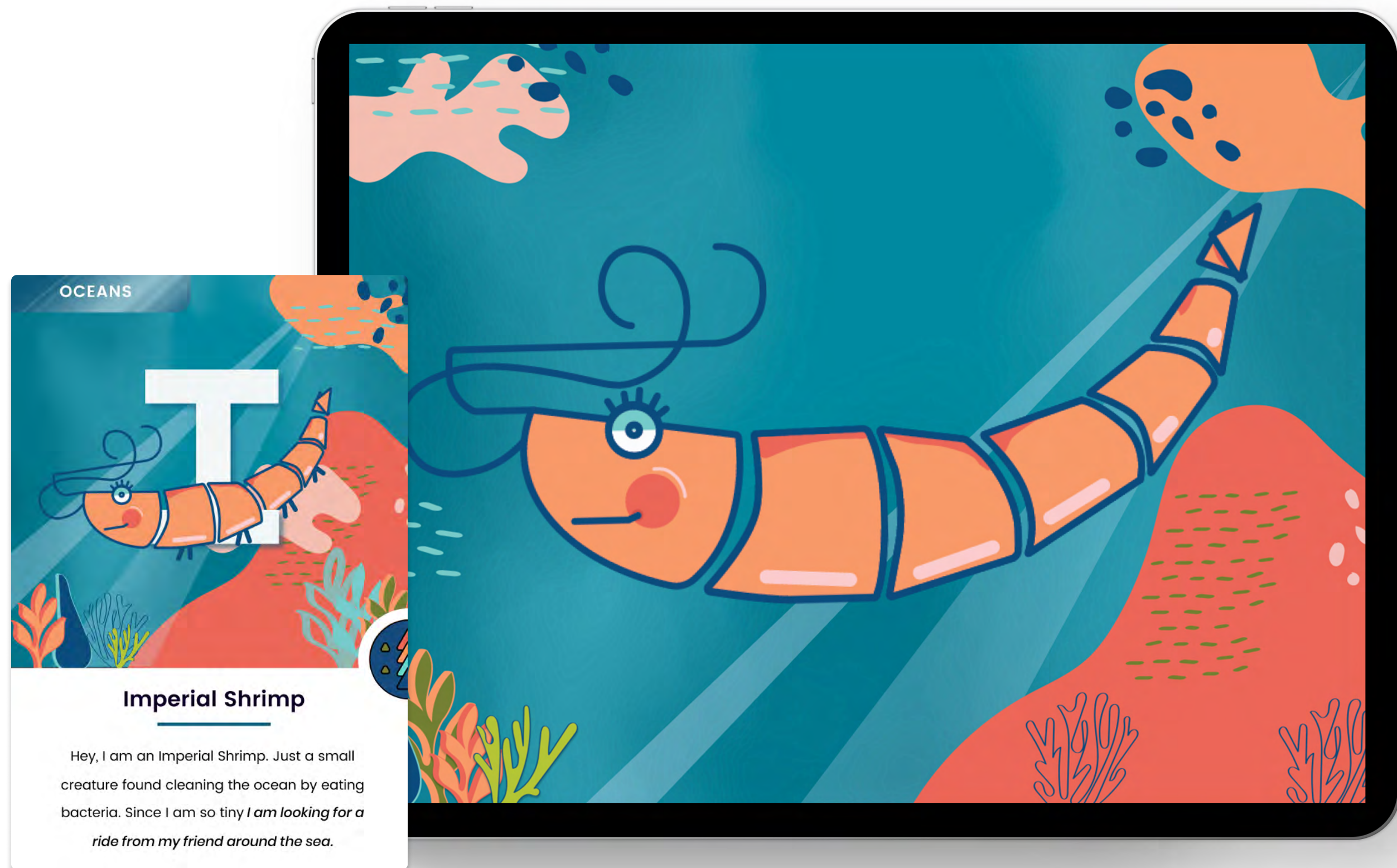
FINAL INTERACTIONS

P.36

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FINAL SPREADS

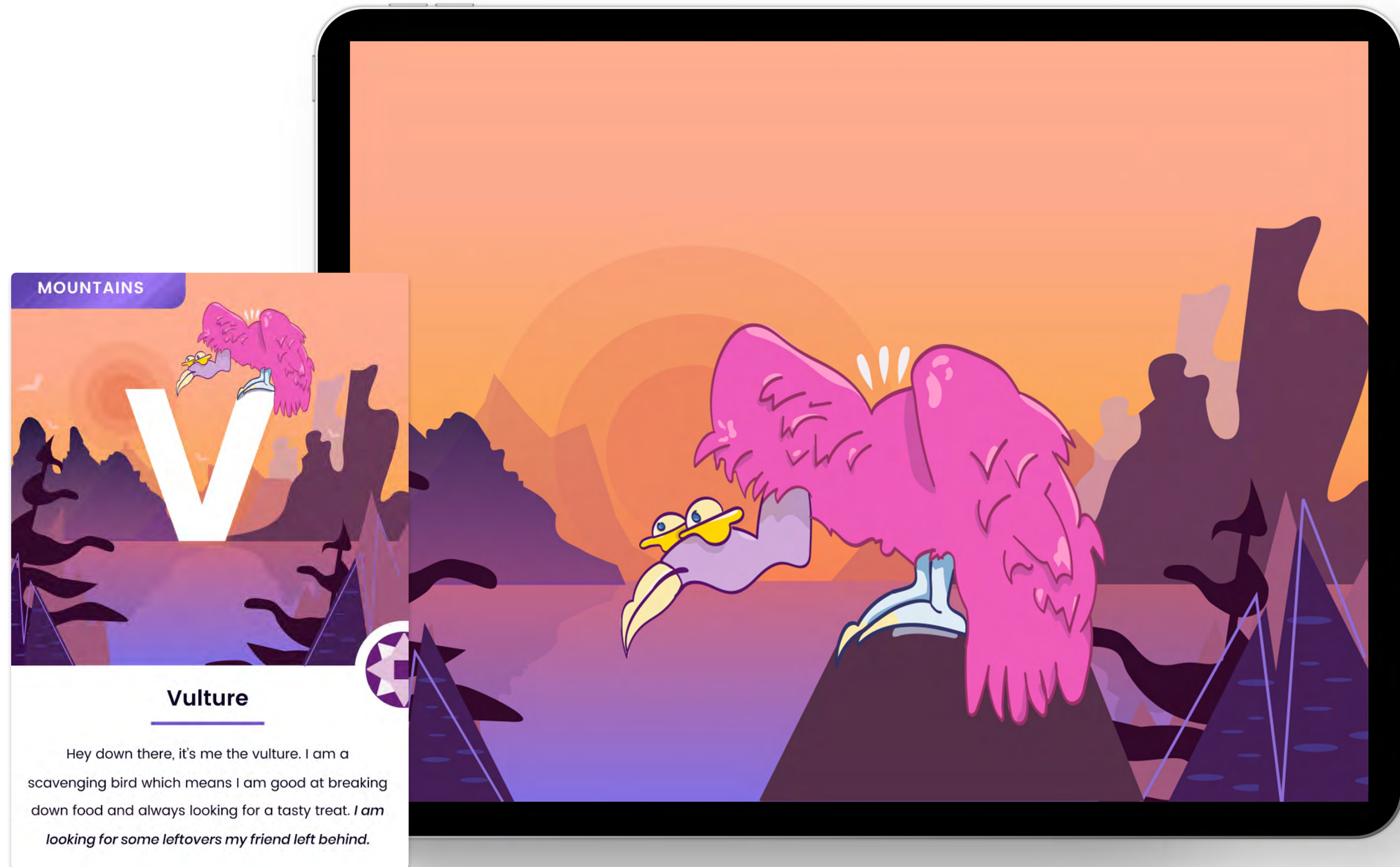
IMPERIAL SHRIMP



MICROHYLID



VULTURE



MOUNTAINS

V

Vulture

Hey down there, it's me the vulture. I am a scavenging bird which means I am good at breaking down food and always looking for a tasty treat. *I am looking for some leftovers my friend left behind.*