

SCIENCE WORLD

"Through science and nature, we ignite wonder and empower dreams."



KEY INSIGHT ONE



The main motivation for the parent/adult going to SW is to prioritize their child's education and happiness.

"From a parents perspective, you have to worry more about looking over them instead of just enjoying it yourself"

- from an interview with a parent

A common problem for parents was the exhibits being geared towards smaller children. One couple even commented that the exhibits seemed to be glorified toys for kids.

Most parents said if not for their kids, they would most likely not go to SW for themselves, as the museum's main attractions were targeted towards kids.

KEY INSIGHT TWO

Parents would like more two-person interactive displays oriented towards both them and their children to create a stronger engagement.

7 out of 8 adults mentioned that they wished to be able to participate in the activities that their kids partake in just so that they aren't just watching over them

-from interviews with multiple parents

A couple answered that technologically oriented exhibits would attract their attention more and help with their learning when asked;
“how should SW display the information so that it could encourage your learning?”



KEY INSIGHT THREE

Most adults find less teaching opportunities to share with their kids because of the exhibit types that children are drawn to.

"If they had exhibits that were more interesting to me, I could explain the concepts to my son and teach him something he doesn't already know."

- interview with a parent

Most of the participants felt that by having more two-person interactive displays oriented towards them and their kids, there would be a stronger level of connectivity.





FINAL FRAMING

With much reflection on our past framings, we acknowledge that science world's main audience are children. A key aspect, however, are the parents and caregivers; notably how they interact with the museum. They are not as engaged as the children and want a balance.



Alice Oakley

First Grade Student

Alice is **seven years old** and enjoys going to science world with her family. Science World has become a **place of entertainment** for her, and she loves exploring the exhibits with her sister.

Due to her frequent visits to Science World, Alice has developed an interest in birds and wishes to pursue exhibits tailored towards this section.

Goals

- + Wants to be entertained and engaged constantly at Science World
- + Would like to explore Science World and interact with all its different exhibits
- + Wants to interact with exhibits designed towards birds

Frustrations

- Sometimes does not understand the concepts that the exhibits teach

All of our participants ages **10 years old and under** answered that they enjoy the majority of the exhibits, mainly the more interactive ones where they got to play.

3 out of 4 children said that their favourite exhibits were based off of their own interests

“I liked the spider gallery because I like looking at the animals”

- from an interview with a 8 year old

When asked if they learnt anything from their SW trips, only **2 of the children** participants replied that they do, but rarely do they think back on it.

Based on survey answers, the children are mainly only interested in the interactive activities and “cool” displays rather than actually learning.



Charlotte Oakley

Parent

Charlotte is a curious and education driven **mother of two daughters**. She often goes to Science World because of her daughters' interest in science and the interactive exhibits.

Although her main priority is to make sure her daughters have fun and learn, she feels unengaged due to the lack of interaction that is offered for **both** her and her daughters.

Goals

- +Wants to expose her daughters to learn a variety of topics within the field of science.
- +Wants to be more **engaged** w/ the exhibits in hopes of learning new things with her daughters.
- +Would like a more **interactive experience** with **guides** to explain aspects of each exhibit.

*CS 1.

Majority of parents wish to go the SW for their kids to learn and have fun

Frustrations

- Most topics that the exhibit cover are **not advanced enough to keep her interested** which makes it difficult for her to explain the concepts to her children.
- Majority of the exhibits are designed to target only younger audiences and **do not** offer much **interaction for the adult**.
- There is **little to no guidance** when exploring the exhibits and this causes Charlotte to **feel unmotivated to learn**.

*CS 2.

"It's good fun for my kids but im not sure all the exhibits teach a science concept"

- from an interview with a parent

*CS 3.

"Instead of simply just reading off the information plaques, I would prefer it if someone or some kind of device would explain it out loud for me"

- from an interview with a parent

PROBLEM STATEMENT



A **lack** of interactive exhibits for families to use together creates **division**, instead of enjoyment through cooperation. An application creates **opportunity** to give parents insights on exhibits that match their intelligence. If this is accomplished, parents can teach their kids themselves, thus creating a **stronger** bond.

HOW MIGHT WE?

- offer content that is **interesting** enough to keep adults engaged?
- help parents **manage** their kids while they interact with the exhibits?
- help kids find a way to better receive **knowledge** that they will remember?
- offer parents material they find **relatable/understandable** to them personally?
- get parents to **participate** in the same activities the children do
- strengthen the **engagement** of both the parent and child at the same time
- offer topics that are both **understandable** by the parent and child
- offer some kind of **guidance** for the parent when they are navigating through the exhibits

SOLUTION BRAINSTORM

App that acts as a journey quest map where the parents and kids have to go explore and learn the exhibits. After each exhibits visited, reveals next exhibit to visit, at the end, there is a quiz.

App that allows the parent to read more into the exhibits includes audio so that the parent doesn't have to read if they don't want to

Museum layout option allows better understanding about direction and guidance to exhibits that suit their wants.

An app that explains the exhibits to parents and children. After, the app will present a challenge or game where the child and parent must complete together

Features which actually target our statement: parent-kid interaction

Interactive exhibits which automatically detect the number and age group of incoming people and offer a single/group experience accordingly

App that allows the parent to read more into the exhibits includes audio so that the parent doesn't have to read if they don't want to

Tablet for the app bc most families use them and parent and child can look at the screen at the same time

An app that lets parents and kids 'save' exhibits on their phones which they can interact with when they go back home

An app-based 'treasure hunt' which encourages kids and parents to go to different exhibits while learning about them

FINAL SOLUTION



The objective is to create **detailed communication** of a selected exhibit in a relatable way for children to understand and retain. Our team decided to ideate an app offered from the Science World's website, which gives access to more **optimal learning** for families who explore science world together. This app can be accessed on any personal tablet or device for easy **transportation** and **accessibility** within the museum.

Entice

Why should I take my kids to SW? Is it worth theirs and my time?
Am I going to learn anything?
Am I just going to be babysitting my kids?
Will I get to do anything fun with my kids?

What's fun at SW?
What are we going to learn at SW?
Is it going to be boring because its about Science...?



Arrival

I should read up on what exhibits are new and exciting.
Are there any guides to help me find preferred exhibits?
What order should I view the exhibits?

Which exhibits are we going to visit/interact with first?



Experience

What exhibits are they interested in?
Do they understand the science behind the exhibits?
Am I able to learn more about scientific concepts while I'm here?
Are they enjoying their time at SW?

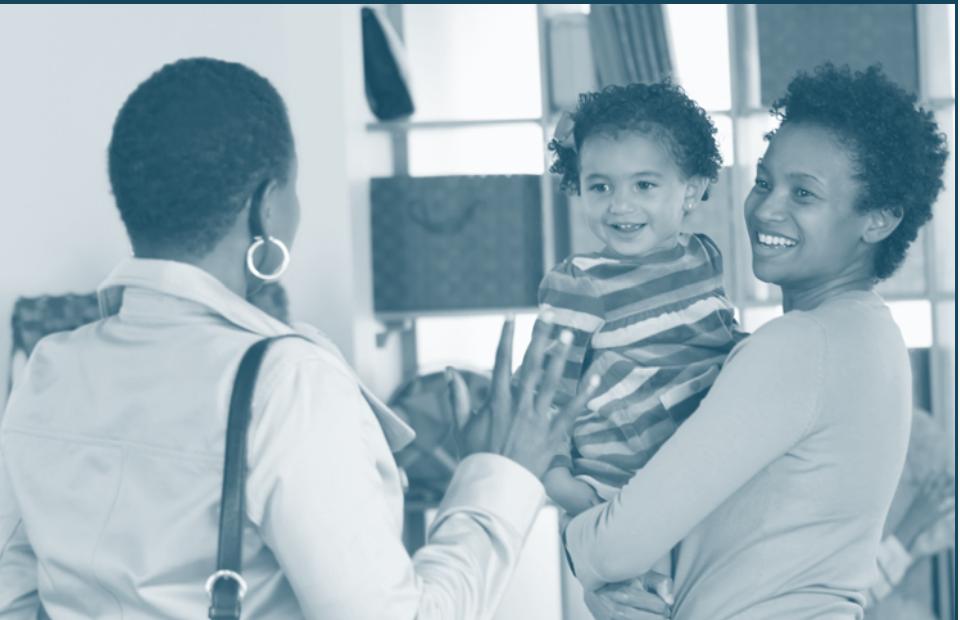
What's fun at SW?



Intervention

Will this intervention work?
How do I navigate it?
Can my kids use it if they want to learn more?

What do these buttons do?



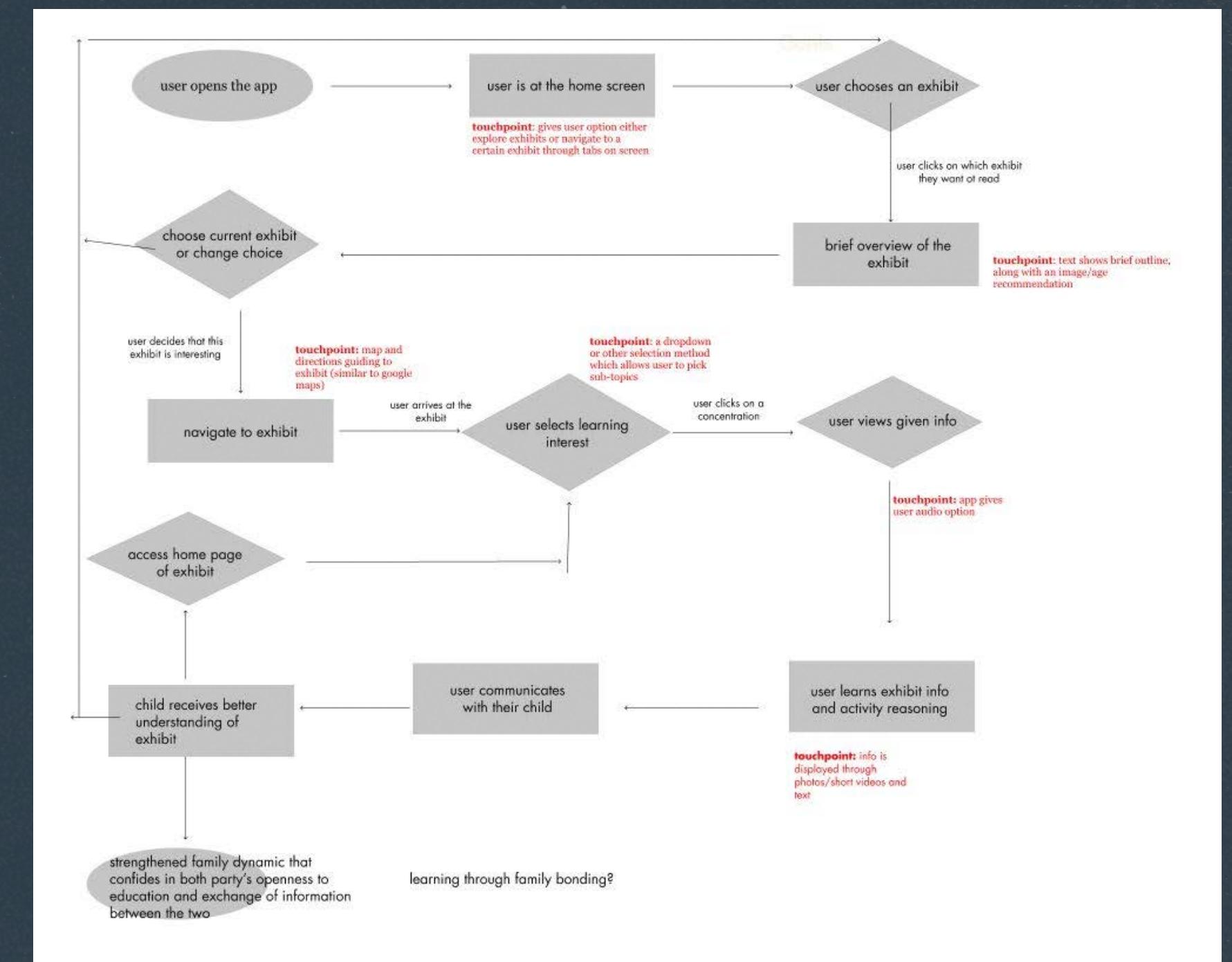
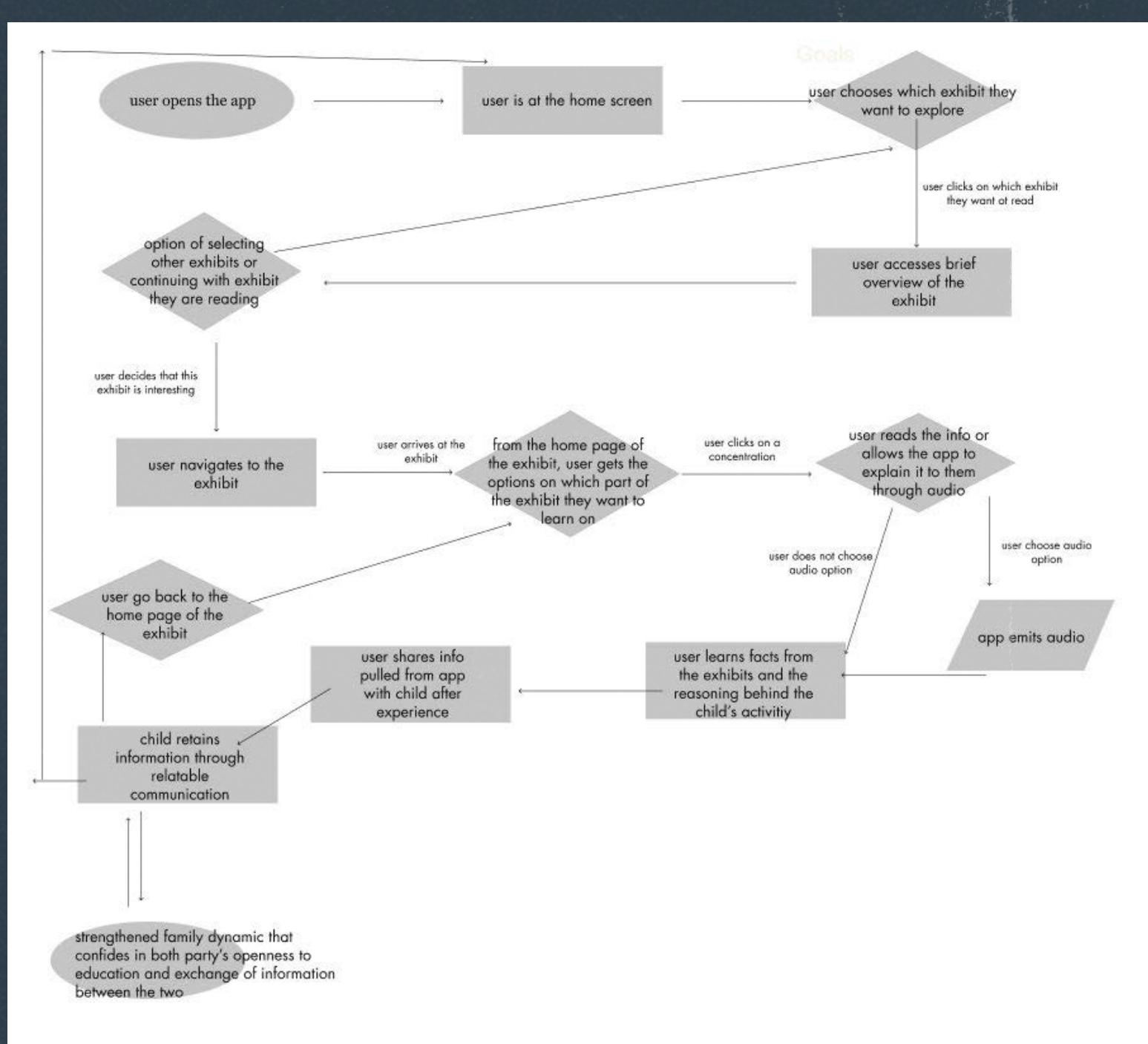
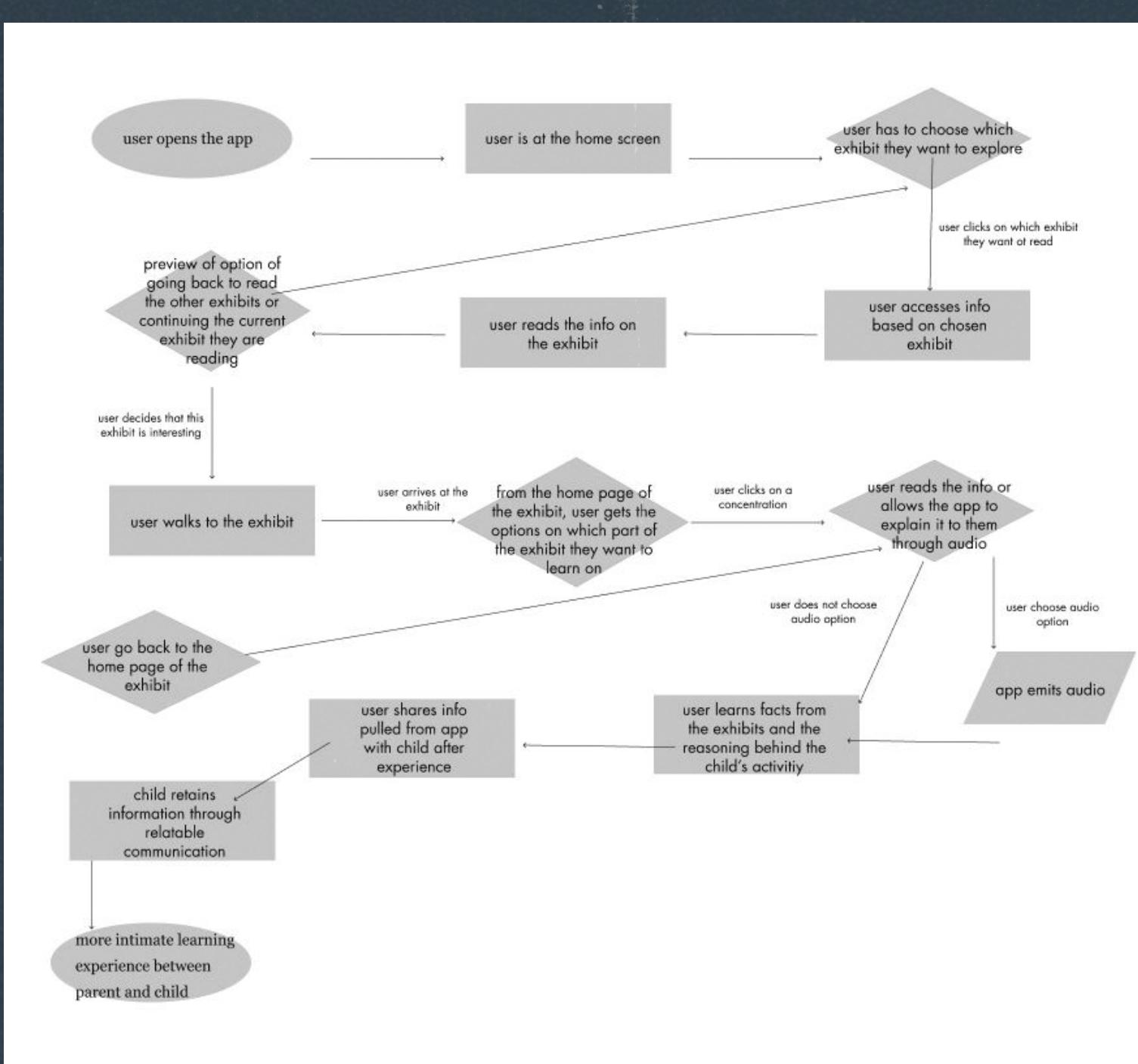
Verdict

Should I come back?
Was I engaged for longer than I hoped?
Did my kids learn anything while having fun?
How can I keep my kids invested in the topics they just learned?

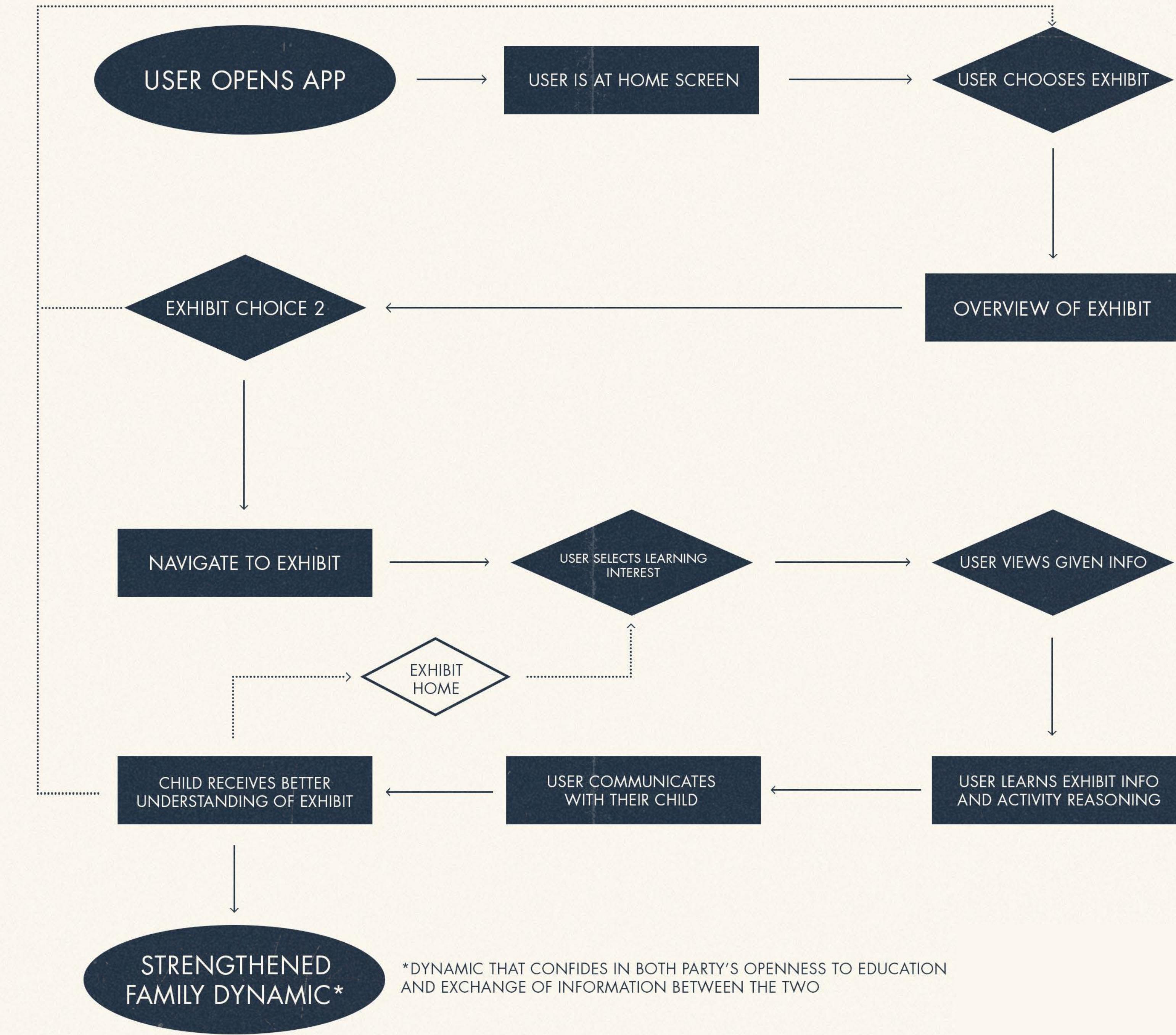
I wonder if I'm going to learn this stuff in school...?



UX FLOWCHART DRAFTS



FLOWCHART



WIREFLOW DIVERGE

Based off of our individual sketches, the team chose the design that best matched the user-flow in the most clean way using the least number of pages.



WIREFRAME

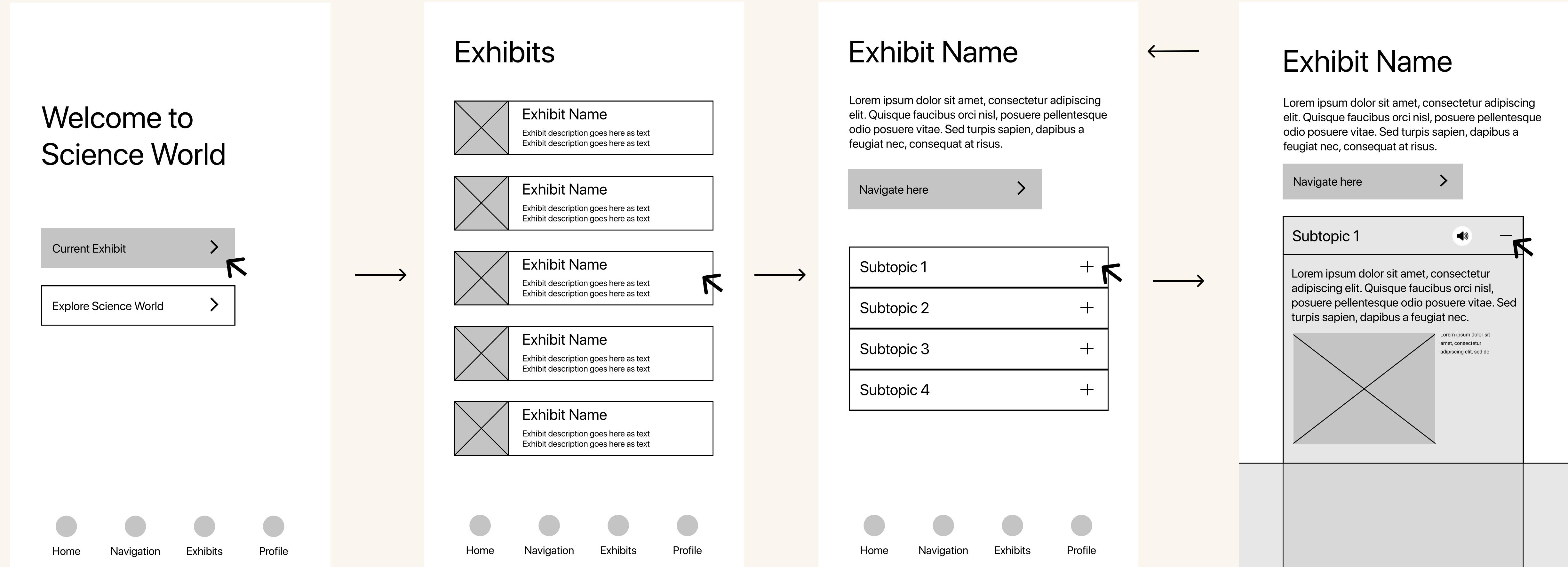


Exhibit Name

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque faucibus orci nisl, posuere pellentesque odio posuere vitae. Sed turpis sapien, dapibus a feugiat nec, consequat at risus.

Navigate here >

- Subtopic 1 +
- Subtopic 2 +
- Subtopic 3 +
- Subtopic 4 +

Exhibit Name

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque faucibus orci nisl, posuere pellentesque odio posuere vitae. Sed turpis sapien, dapibus a feugiat nec, consequat at risus.

Navigate here >

Subtopic 1

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque faucibus orci nisl, posuere pellentesque odio posuere vitae. Sed turpis sapien, dapibus a feugiat nec.

Subtopic 2

Subtopic 3

WIREFRAME

Welcome to
Science World

Current Exhibit >

Explore Science World >

Home Navigation Exhibits Profile

Navigation

Search for exhibits...

Search results for "XYZ"

Exhibit Name
Exhibit description goes here as text
Exhibit description goes here as text

Exhibit Name
Exhibit description goes here as text
Exhibit description goes here as text

Exhibit Name
Exhibit description goes here as text
Exhibit description goes here as text

Home Navigation Exhibits Profile

Turn left in 12 metres
1 minute 15 seconds

RE-LOCATE EXIT

MOCKUPS

Welcome to Science World

[Current Exhibit >](#)[Explore Science World >](#)[Home](#) [Navigation](#) [Exhibits](#)

Exhibits



Astronomy Exhibit

Learn about the planets in our solar system by observing digital displays of the universe



Dinosaur exhibit

Observe fossils of some of the largest terrestrial animals to ever walk on earth



Human Exhibit

Learn about how the choices you make impact your body and how it all works



Reptile Exhibit

Explore a visual display of reptiles and other creatures and anatomy of their body



Weather Exhibit

A virtual world where visitors get to observe the different weather phenomena

[Home](#) [Navigation](#) [Exhibits](#)

Human Body

You will get to learn about the anatomy of the human body. There will be visual displays revealing parts such as the skeleton, internal organs and promote positive body messages.

[Navigate to exhibit >](#)

Human bones

[+](#)

Brain

[+](#)

Heart

[+](#)

Lungs

[+](#)

[Home](#) [Navigation](#) [Exhibits](#)

Human Body

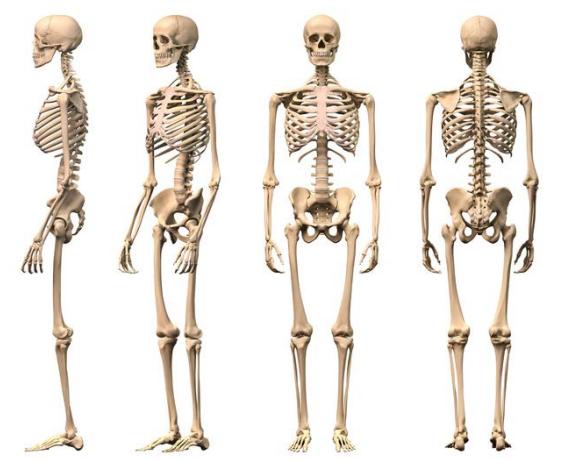
You will get to learn about the anatomy of the human body. There will be visual displays revealing parts such as the skeleton, internal organs and promote positive body messages.

[Navigate to exhibit >](#)

Human bones

[-](#)

The human skeleton is the internal framework of the human body. It is composed of around 270 bones at birth. This total decreases to around 206 bones by adulthood. The human spine is able to do amazing things such as increase in height and being able to be bend.



Our thighbone is the strongest bone that is stronger than concrete.

Brain

[+](#)

MOCKUPS

Welcome to Science World

Current Exhibit >

Explore Science World >

Home Navigation Exhibits

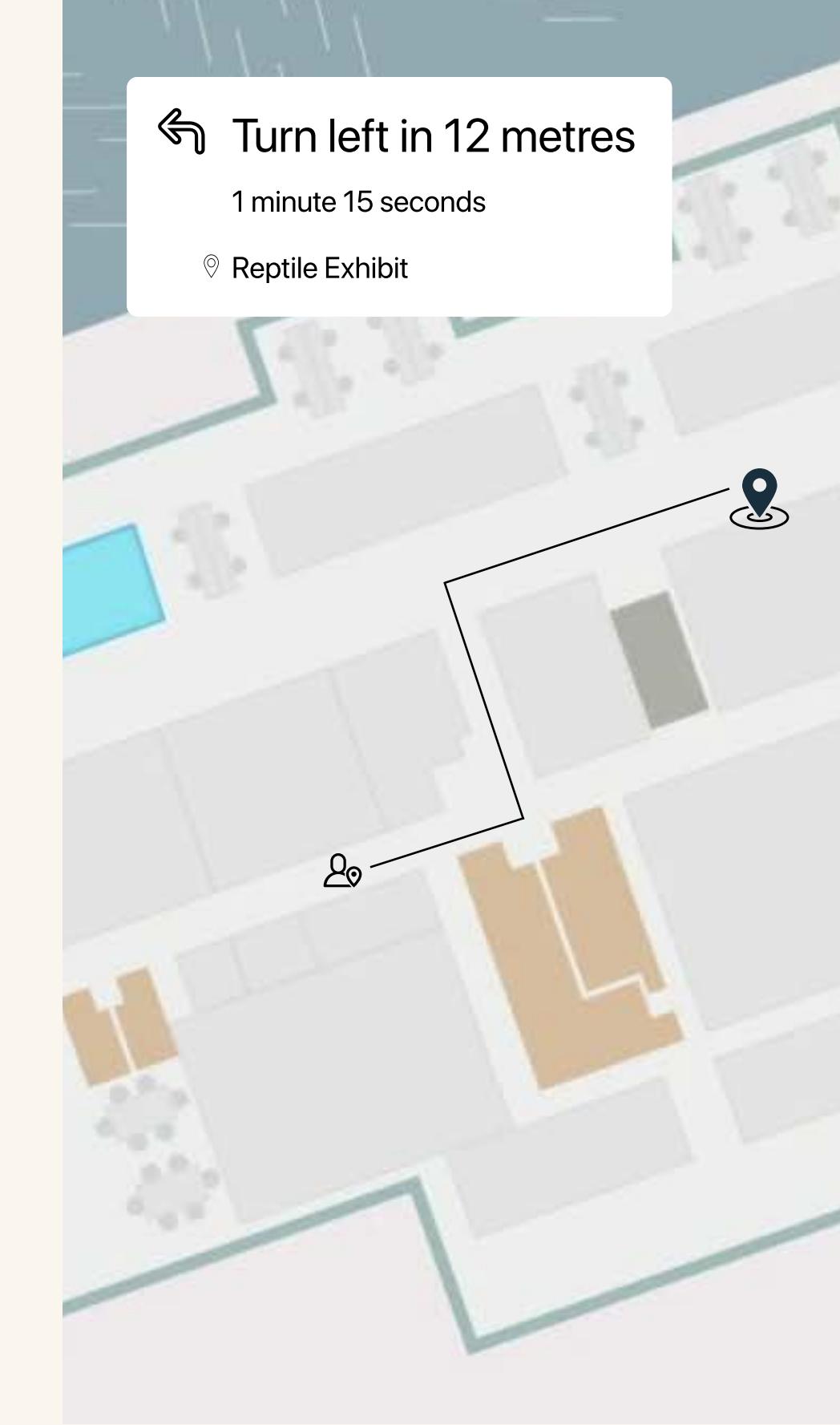
Navigation

Search for exhibits...

Search results for "Rep"

-  Reptile Exhibit >
400m away
-  Human Exhibit >
513m away
-  Weather Exhibit >
618m away

Home Navigation Exhibits



FINAL PITCH

Due to the current format of the exhibits presented by Science World, a majority of our parents participants felt that the information offered should be conformed in a way that is understandable to both them and their kids.

Therefore, we designed an application that contains detailed information about specific exhibits to create a more valuable learning experience between parents and their children.

By offering more relatable material to adults, they can share the purpose of the exhibits with their kids in a way that is easy to recognize.

"If there were exhibits with material that was interesting to my own preference, I could explain it to my daughters in a more simple way."

-from an interview with a parent

CITATIONS

Science Facilitator. (2014, June 19). Retrieved from:

<https://ca.indeed.com/cmp/Science-World/reviews?start=20>

ASTC Science World Society. (2020). Welcome Back to the Dome. Retrieved from:

<https://www.scienceworld.ca/welcome-back/>

ASTC Science World Society. (2020). About Science World. Retrieved from

<https://www.scienceworld.ca/about/>

ScienceWorld(2018,July 11).The Future of Science World in BC.[Video].Youtube.

https://www.youtube.com/watch?v=j6c7g1jkwN4&feature=emb_title

Ontario Science Centre. (2016, January 25). Retrieved November 02, 2020, from

<https://torontoguardian.com/2016/01/where-to-bring-your-kids-for-family-day-weekend/mm-section4view-cropped-1000px/>

Tips for Teachers to Execute an Awesome Field Trip. (2018, May 14). Retrieved November 02, 2020, from

<https://juniortours.com/tips-teachers-execute-awesome-field-trip/>

Universal Accessibility. (n.d.). Retrieved November 02, 2020, from <https://www.scienceworld.ca/accessibility/>

Employee and Volunteer Giving. (2016, May 19). Retrieved November 02, 2020, from

<https://www.scienceworld.ca/stories/employee-and-volunteer-giving/>

Entering Science World.(2020, Oct 5).Retrieved November 02, 2020, from

https://www.youtube.com/watch?v=k81s_tUNWye&feature=emb_logo

