

Purchase less
Serve less
Waste less

Preserv[🌱]

Minimizing household food waste
through preservation and education



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Understand

Explore

Materialize



Understand

Empathize

Did you know

food waste contributes the **3rd largest amount of green house gasses** destroying our climate?

Understand

Empathize

Most don't.

8/10 people interviewed responded that they had no idea.



Understand

Research

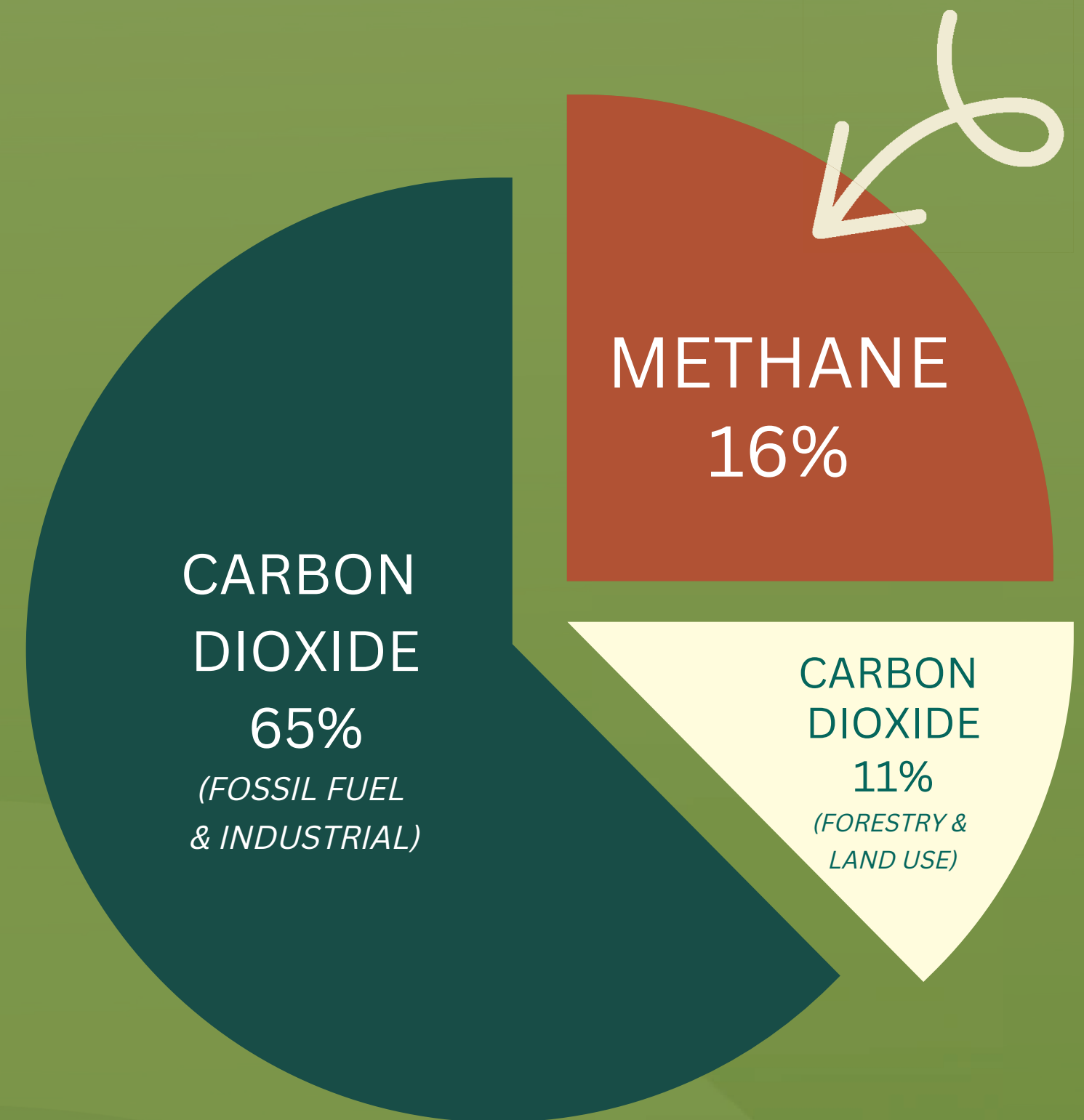
If food waste was a **country**, it would be the **3rd largest** following **China** and the **US**.

1/3 of the food produced in the world is wasted.

It is the **2nd highest contributor of emissions**.

"I know that the lifecycle of food takes a lot of natural resources and energy, but I had no idea food waste emitted greenhouse gas!"

-Deb





Understand

Research



WHY

is food wasted?

34 million Americans face hunger

811 million of the world is going to bed **hungry**

697 million are *severely* food insecure

A person wearing a dark, hooded jacket is sitting on a concrete bench. They have a large, light-colored bag slung over their shoulder. The background is a blurred city street at night, with bokeh lights from buildings and traffic. The overall mood is somber and urban.

That's 1 in 4 people globally

Understand

Research



HOW

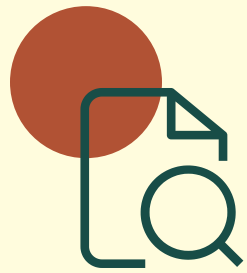
can we waste this
valuable resource?

Understand

Research

Methods of Food Waste

Crop Waste & Culling



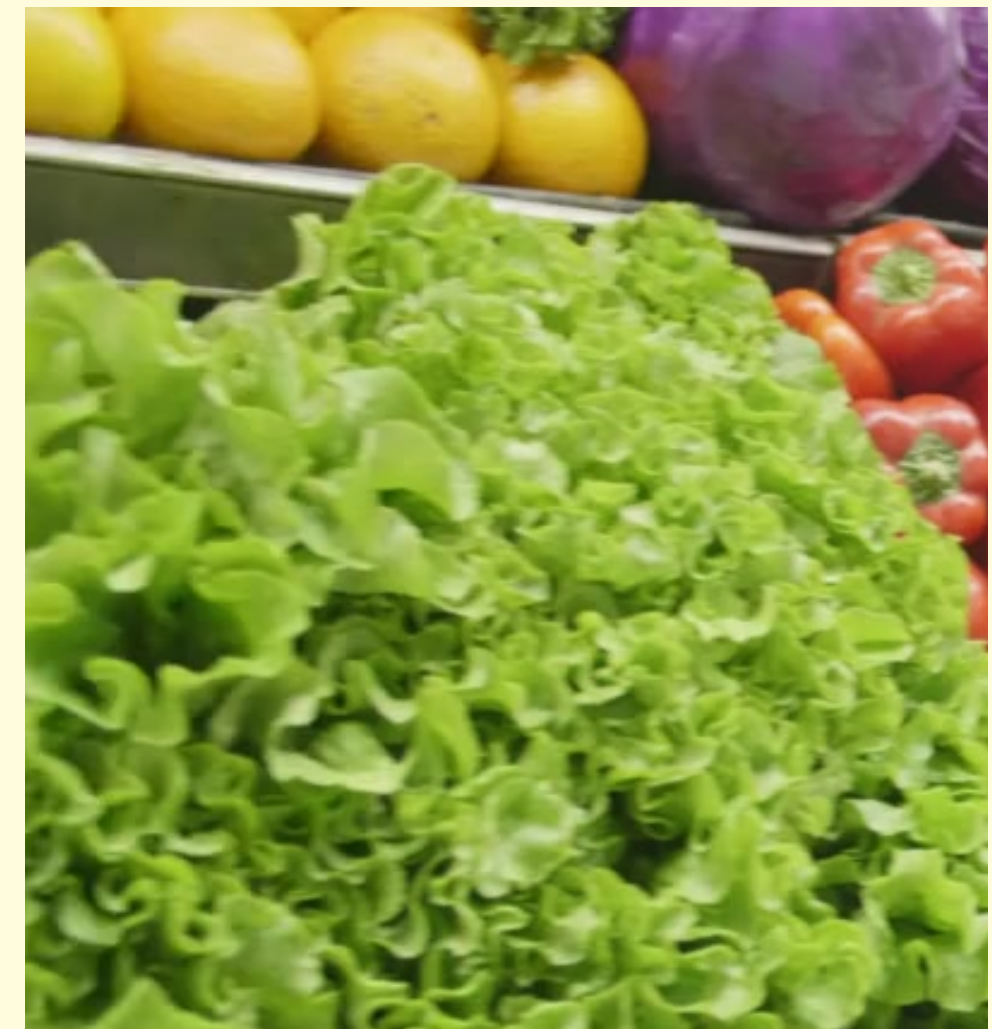
Crops are thrown out from disease, pests, rot and culling.

Our food shortage is not stemming from how much food we are producing and growing on earth, but from the amount that is wasted in the process from the farm to the table.



Culling

Farmers destroy food because it does not meet the high retail appearance standards.

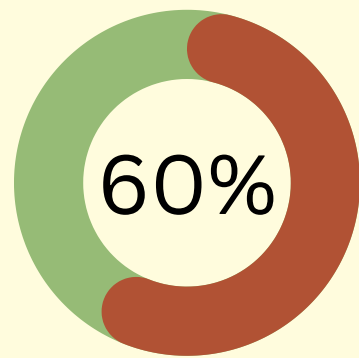


Understand

Research

Methods of Food Waste

Lack of convenience to composting



6/10 users interviewed said they are either *prohibited* from outdoor composting on their property or don't have municipal pick up services through their county government.



Can't compost

Users expressed a **shame** that they are throwing out their leftover foods because they cannot easily compost their waste.

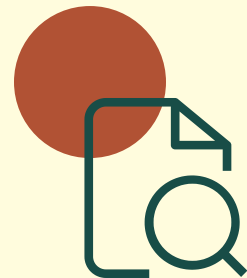


Understand

Research

Methods of Food Waste

Other methods



US restaurants generate an estimated 22 to 33 billion pounds of food waste each year. Institutions — including schools, hotels and hospitals — generate an additional 7 to 11 billion pounds per year. Approximately 4 to 10 percent of food purchased by restaurants is wasted before reaching the consumer. [2]

- FDA regulated sell-by dates
- Excessive portion sizes
- Consumers buy too much



A photograph of a trash bin lined with black plastic. Inside the bin is a discarded meal consisting of a large portion of white rice topped with a piece of salmon, several crab legs, and some green garnishes. The food is surrounded by crumpled white paper and other debris. A white and green container is partially visible in the background.

Food is just thrown out.

Understand

Define



This is a **PROBLEM**

Problem statement

Society needs to seriously address climate change in as many ways as possible. Food waste is one of the top contributors to destroying earth. Humans need to be more self-reliant and take additional measures to reduce food waste more than ever.

If households preserved their foods for later consumption or composted regularly, a tremendous amount of food waste could be avoided and carbon footprints could be reduced.

"What is staggering to think, is that using the method of preservation in households to reduce food waste is far from a new idea, it is not disruptive or revolutionary but it has just been **overlooked** and **forgotten** in the **sustainable diet arena.**"

-Wayne Martindale

*The Potential of Food Preservation to
Reduce Food Waste*

"Preventing food from going to waste is one of the **easiest** and **most powerful** actions you can take to save money and lower your climate change footprint by reducing greenhouse gas emissions and conserving natural resources."

-US EPA

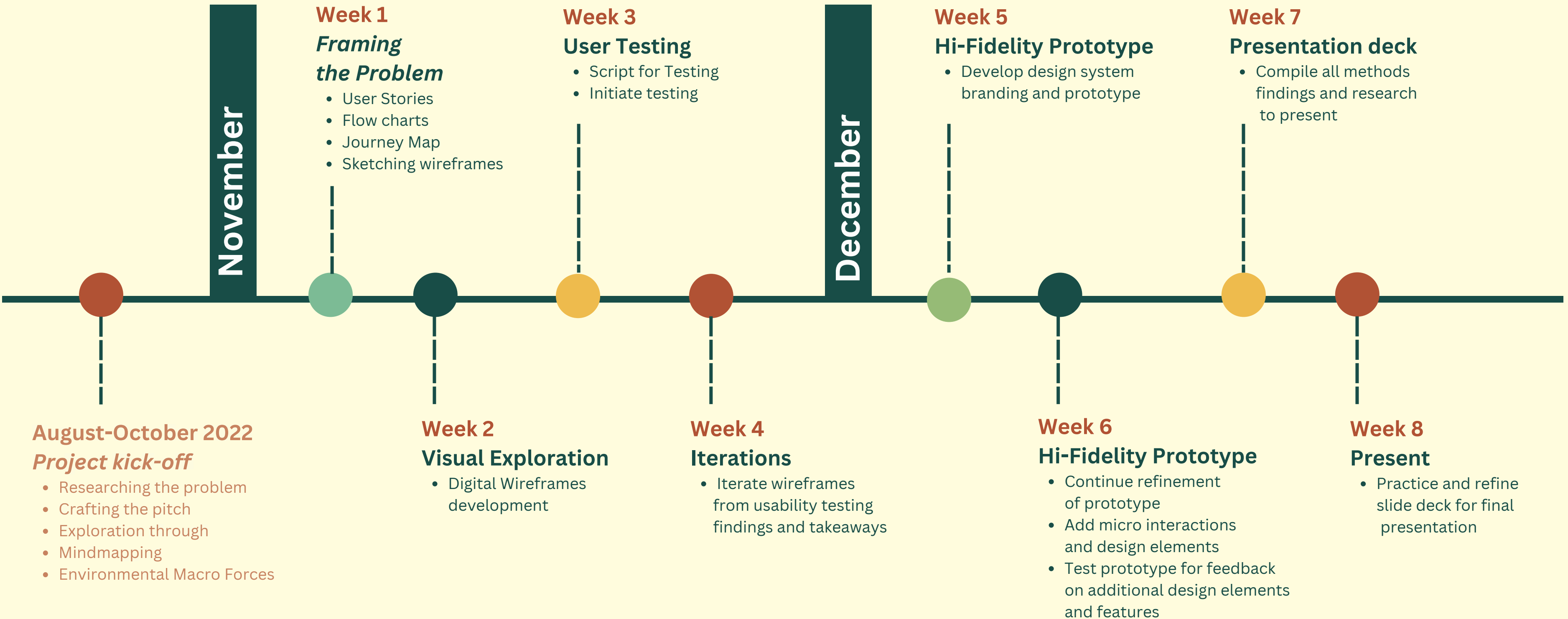
United States Environmental Protection Agency



How **might we** reduce household food waste
by increasing food preservation,
storage methods and composting?



Timeline

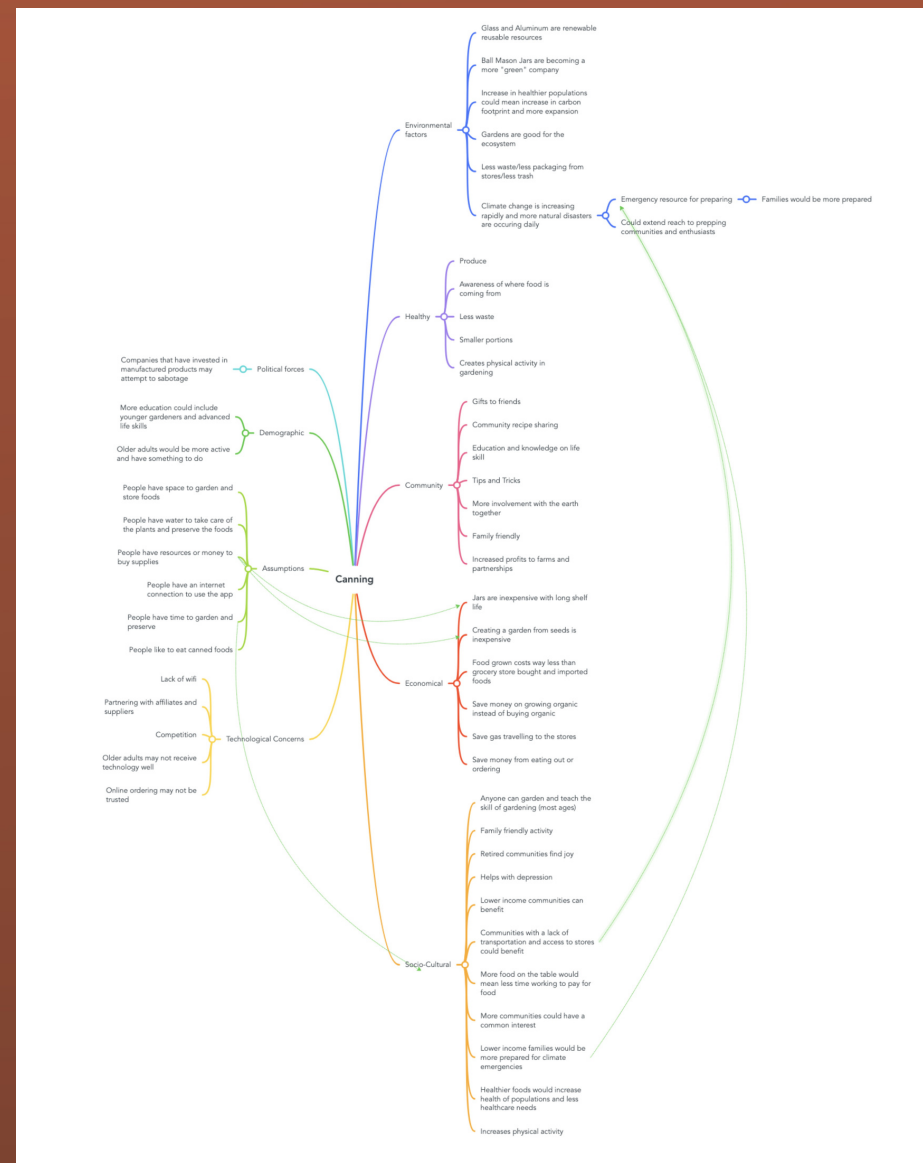


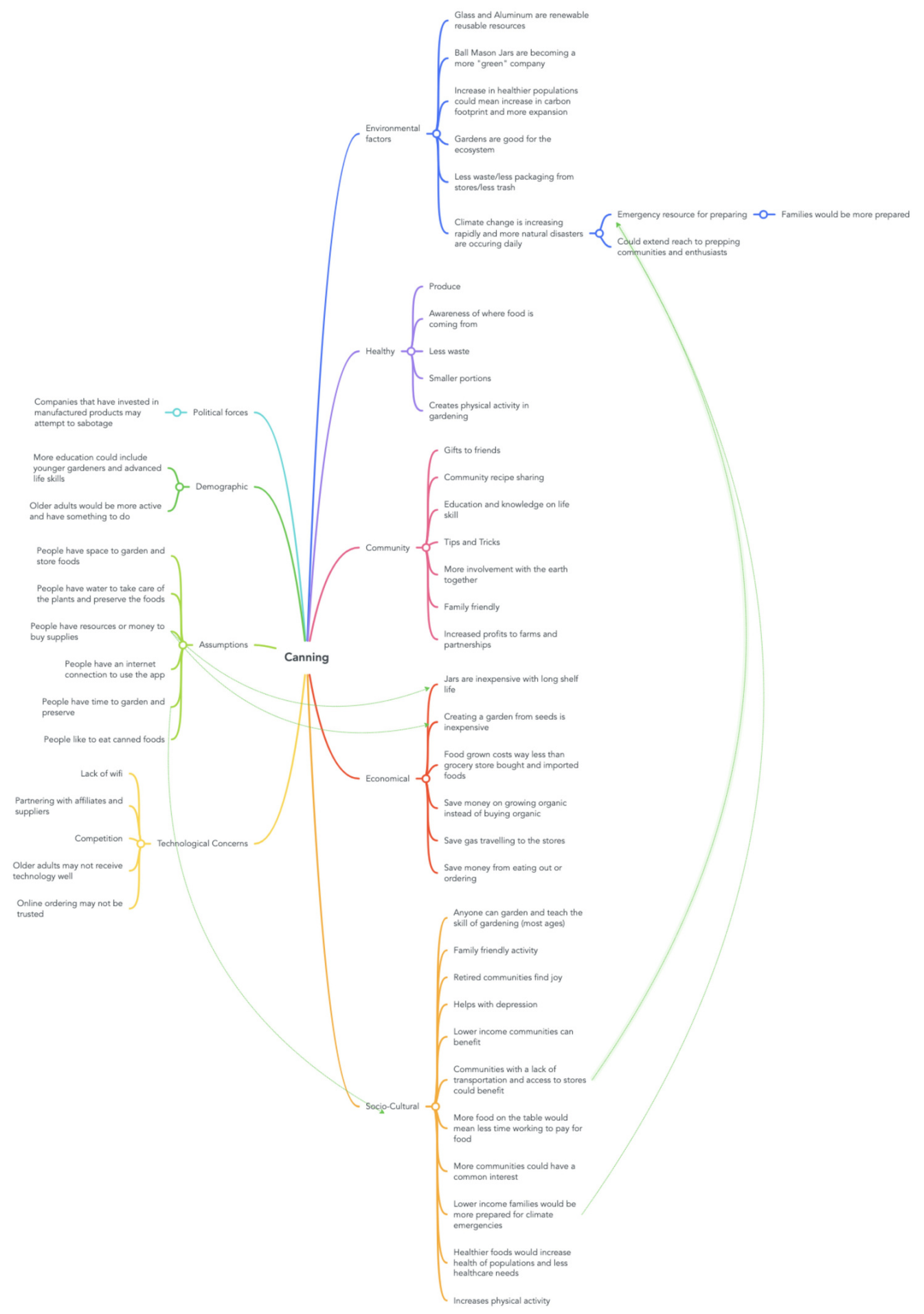
Understand

Define

Mind Map & Macro Forces

Questions prompted mindmapping and macro forces





Goals/Outcomes

- **Reduce** food and environmental **waste**
- **Educate** proper methods for food preservation/composting
- **Increase** household food **storage**
- **Decrease** the human **carbon footprint**
- **Inspire** healthier **diets** and **lifestyles**
- **Decrease** household food **costs**
- **Connect** users to **events, recipes, equipment** and **resources**





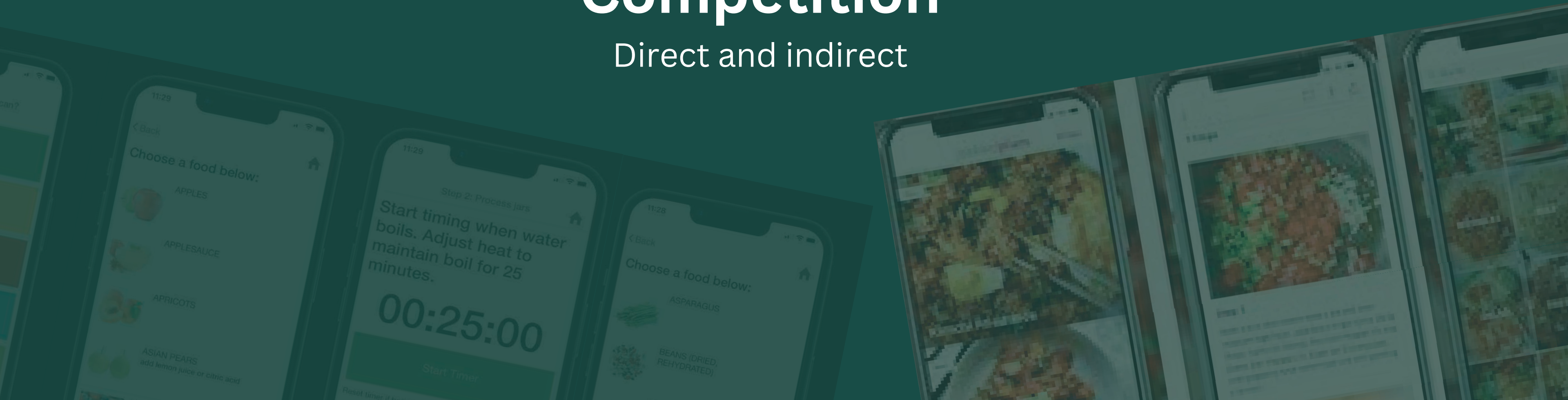
Understand

Evaluate



Competition

Direct and indirect

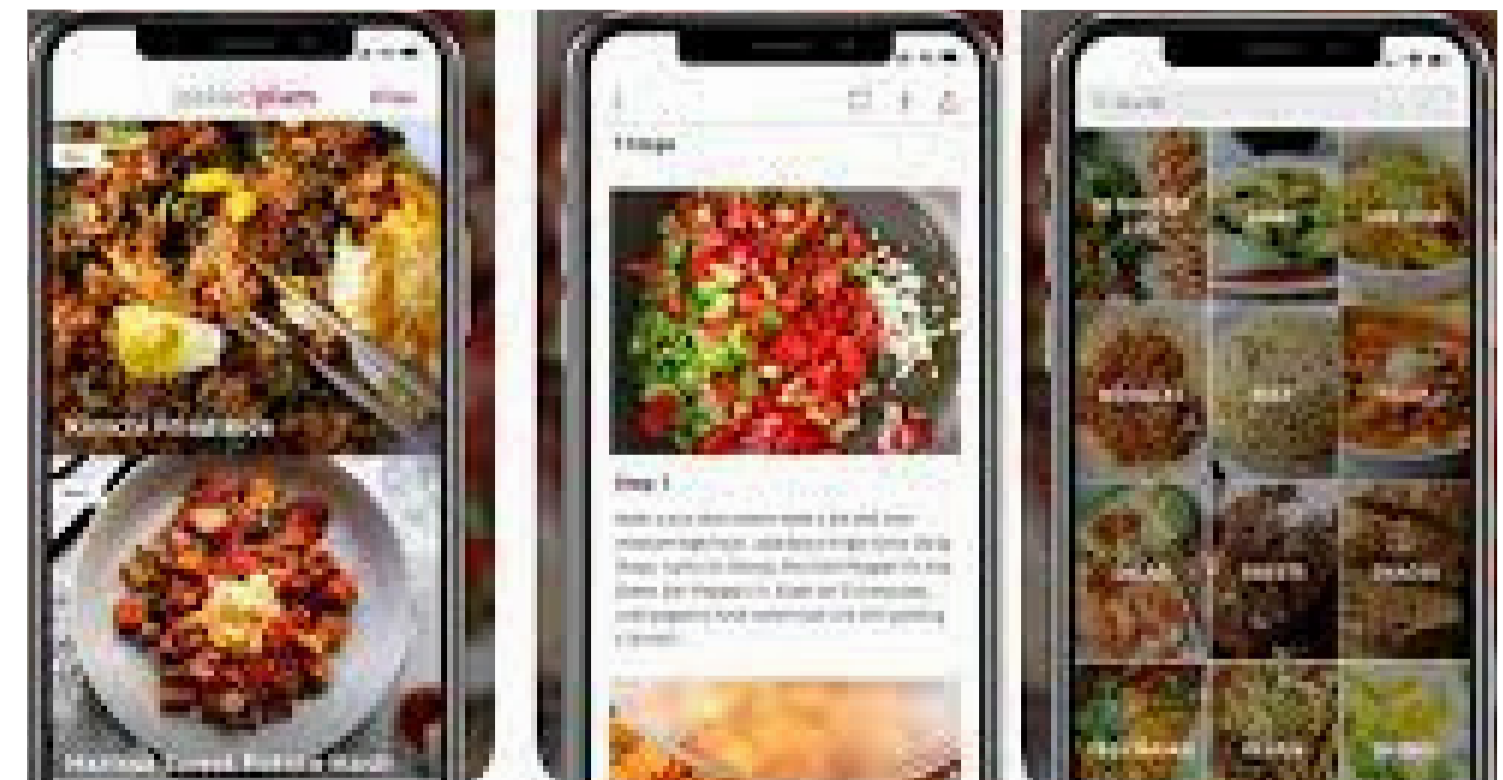
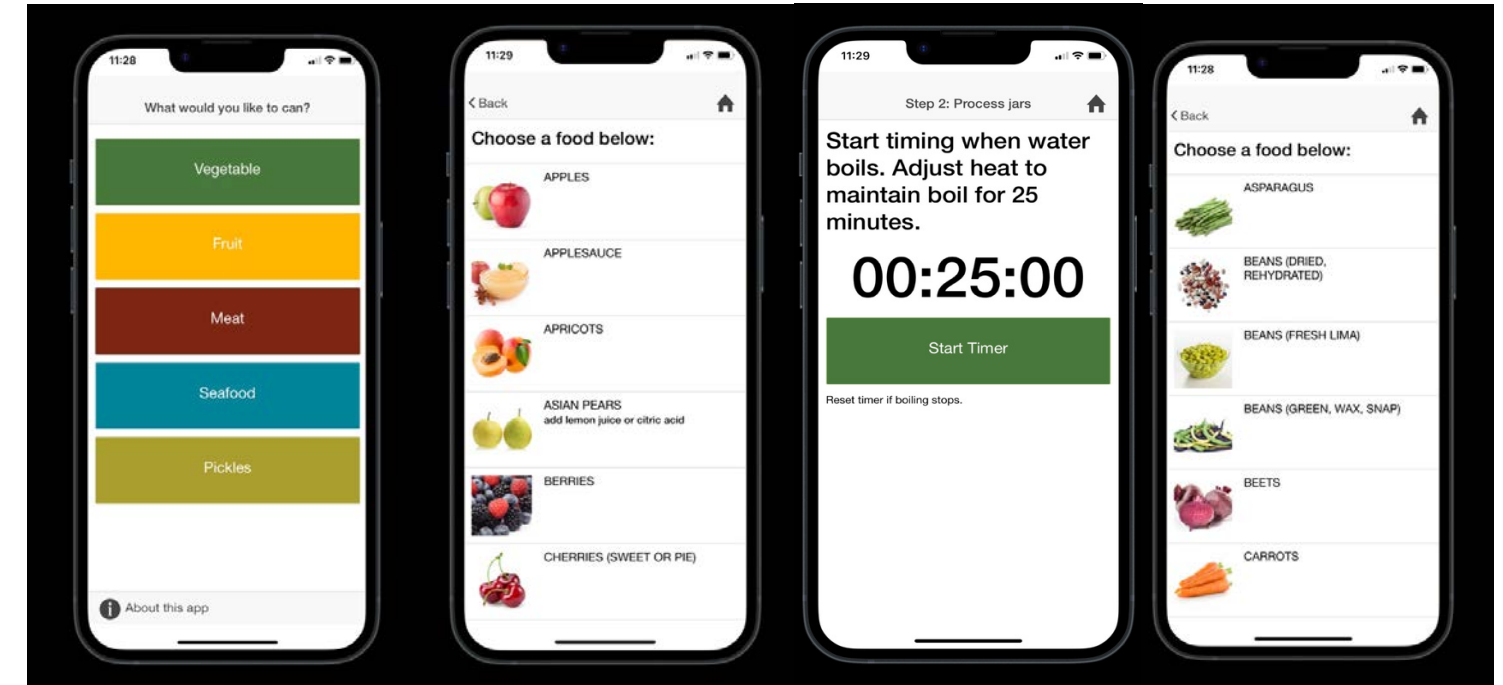


Understand

Evaluate










University extensions and the **current** market provide assistance and recommendations, however they are **underfunded**, **underresourced** and **limited** in features.

The market is a **blue ocean**.



Understand

Evaluate

Competitors	Timer	Checklists	Preservation Methods	Imagery of Food	Recipes
			<ul style="list-style-type: none">• Canning		
			<ul style="list-style-type: none">• Canning• Freezing• Dehydrating• Smoking• Fermenting		
					

Understand

Define



Who are our users?

Key audiences & mental models

Target Audiences

- Adults over 25
- Gardeners
- "Preppers"
- People who cook
- Farmers Market attendants & vendors
- Households that cannot compost



Additional Audiences

- Mothers who make homemade baby food
- Pet owners who make homemade pet food
- Farmers
- Teachers
- Campers/backpackers
- BBQ enthusiasts (*smoke meat and hot sauce*)
- Armed forces
- Off-grid and survival enthusiasts
- Communities that do not have easy access to food stores for fresh food or live in a climate where fresh food is hard to produce or procure



Assumed mental models

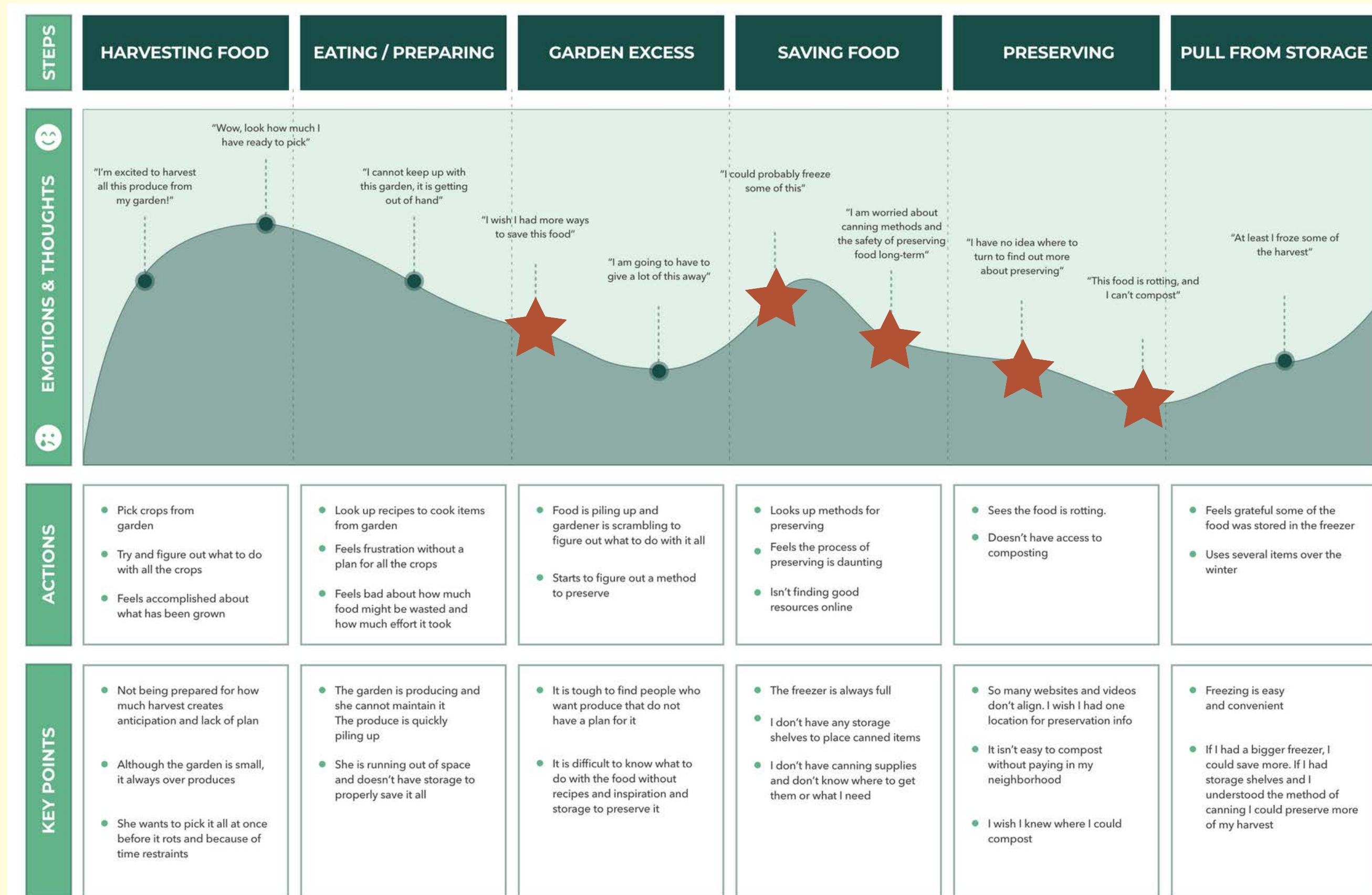
- *want* to preserve their food
- don't want to throw their food out
- want to fight climate change
- want to save money
- want to store their food
- want to be more healthy
- like to garden
- already currently store some food
- want to compost



Understand

Empathize

Preserving food from the garden



Opportunities

Understand

Empathize



Interviews

The objectives & process

Objectives

- What are the users views on climate change?
- What are the users habits on gardening?
- How much food do users believe they throw in the bin?
- What is keeping users from composting?
- What are the users pain points with preserving foods?
- How many users have preserved before/or have an interest?
- What are the users emotions about preserving food?
- Would users be inclined to use a tool to preserve food and compost?



Process



10 users interviewed

Interviews were conducted with the key audience and user types. A variety of users were chosen that were in line with the personas.



Remote

Users were interviewed over Zoom. This allowed users to be recorded for later transcription and note recording.




Time

Interviews were estimated around 30-40 minutes.



Documentation

Key findings and quotes were documented about emotions, habits and processes.



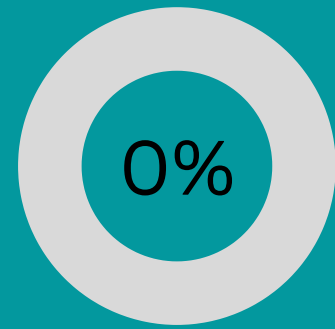
*"I **love** to be outdoors. It brings me great **joy** when I reconnect with the earth, plant my own veggies and feel the **success** of preserving them for off-season."*

-Allison

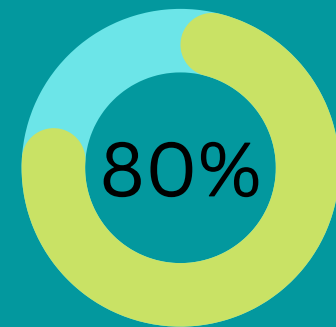
Understand

Empathize

Interviews concluded that:



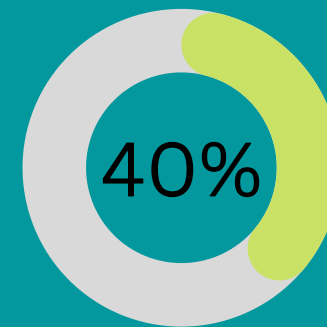
Zero users want to throw out food



8/10 users garden

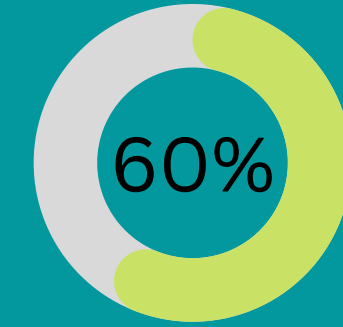


However...

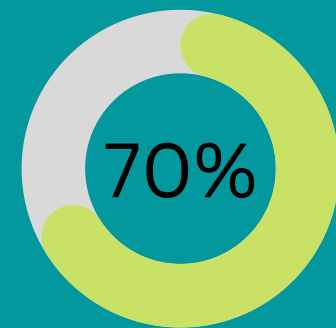


Only 4/10 users compost

Because...

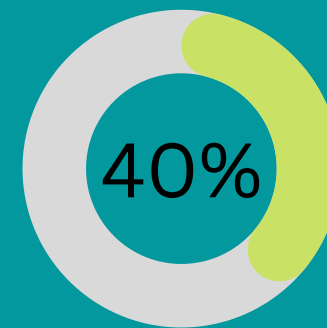


6/10 are *prohibited* from composting



7/10 households already preserve some food

But...



Only 4/10 feel **confident** preserving food for long-term storage

What do users need?



Time

Users don't feel as though processing food is a **priority** in their free-time and **most** interviewed **have access** to store bought foods.



Composting

Users need **state mandates** to enforce composting services if county restrictions prohibit it on their property or the supplies to do it properly and efficiently.



Knowledge

Users' **fear** of processing foods for storage has kept them from utilizing the practice.



Supplies & Storage

Users noted that their lack of preserving either through freezing or canning was due to a **lack of storage space, options and supplies.**

What do users need?



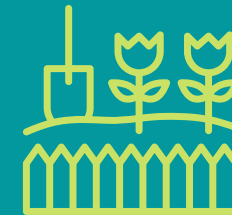
Help

Users need **help** gardening. Although many users enjoy gardening, it can be **overwhelming** to maintain and **plans for food** after harvest.



Visuals

Users need to be shown visually and hands-on how to can safely. Users noted that they prefer **watching videos** to learn and/or **taking classes**.



Garden Area

5/9 users stated that they did not have an **optimal area** with enough sun, protected from wildlife to garden the way they want to. **Zero users garden food indoors**.



Tools

Users need **timers** and **checklist** utilities to match competition.



Concern

Users interviewed had limited concern for natural disasters as most live in areas that are not affected...

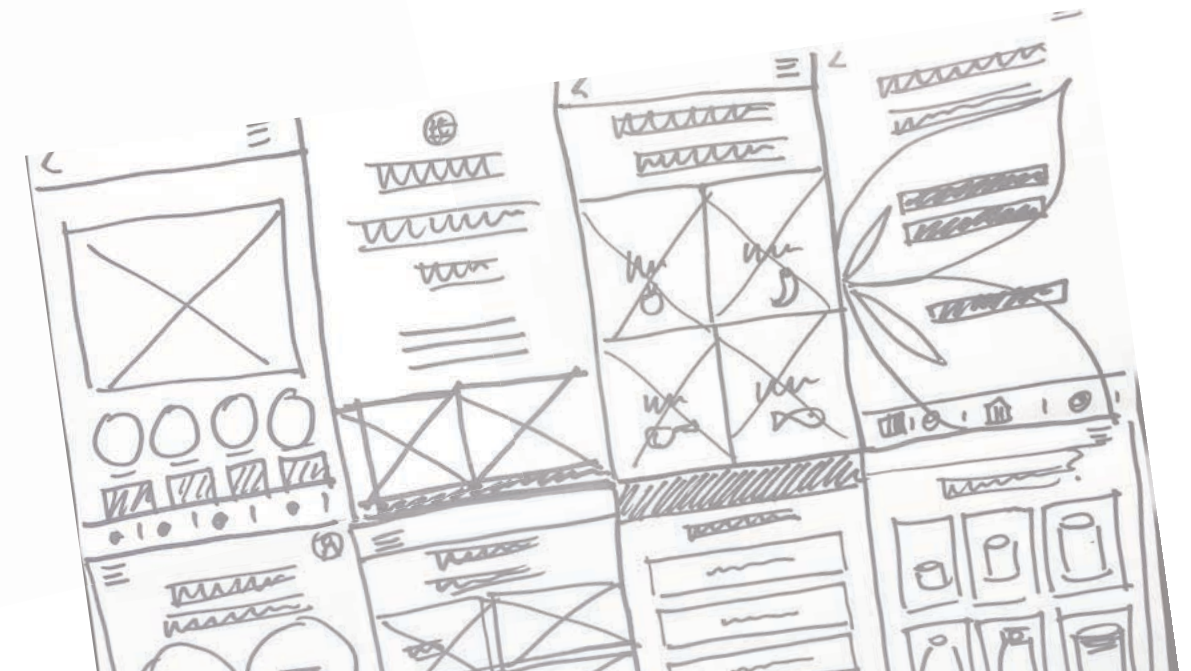
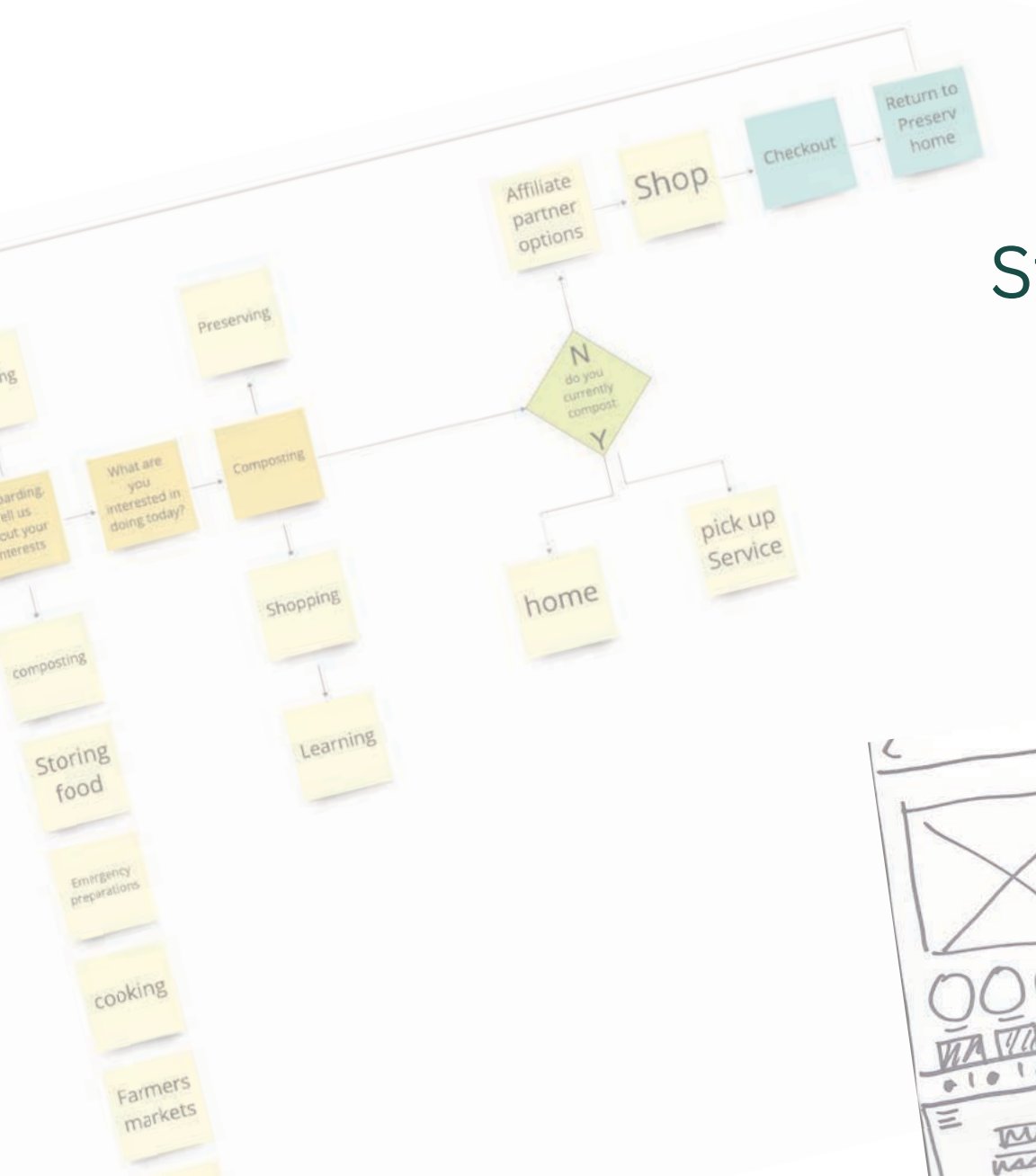
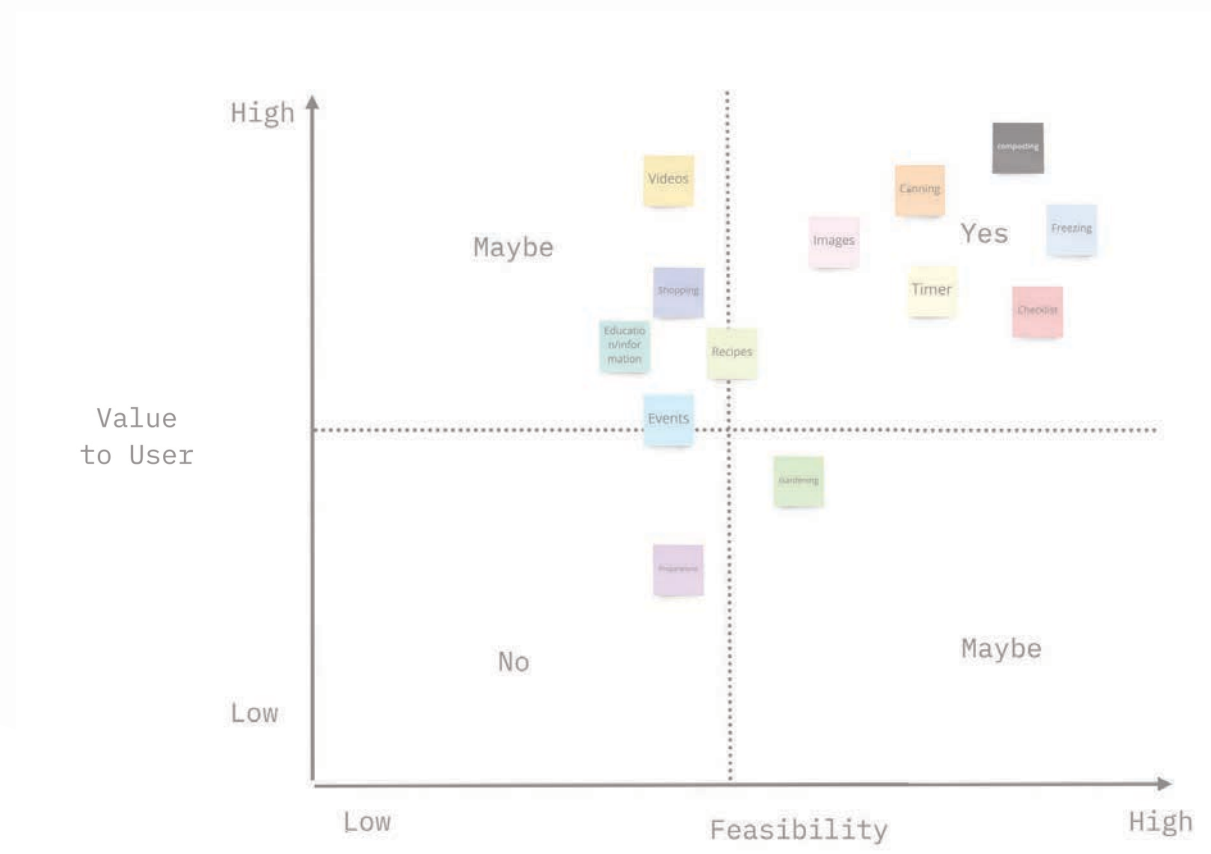
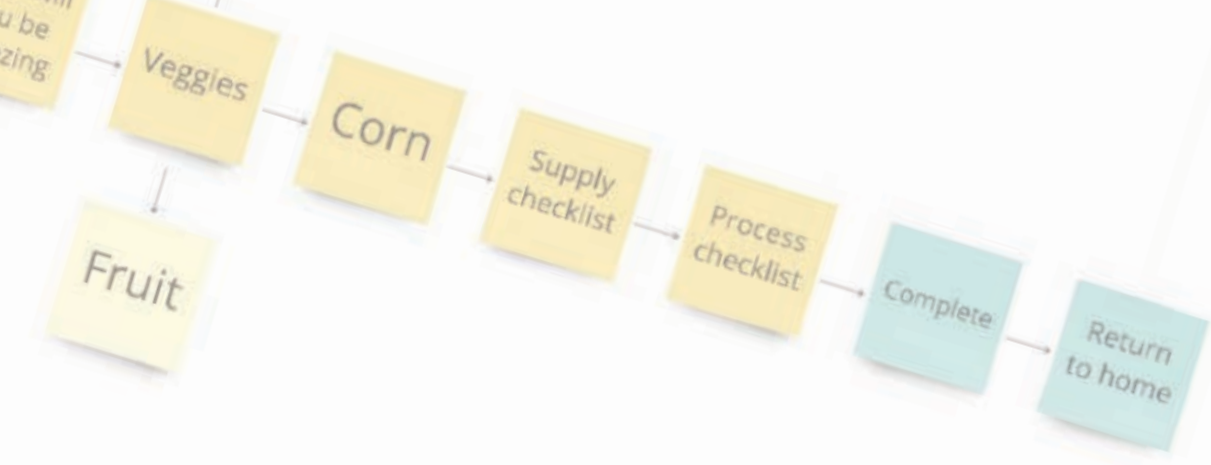
yet.

Explore



Ideate

Storyboards, user stories, flow charts, 2 x 2 feature matrix, crazy 8's, wireframing, usability testing

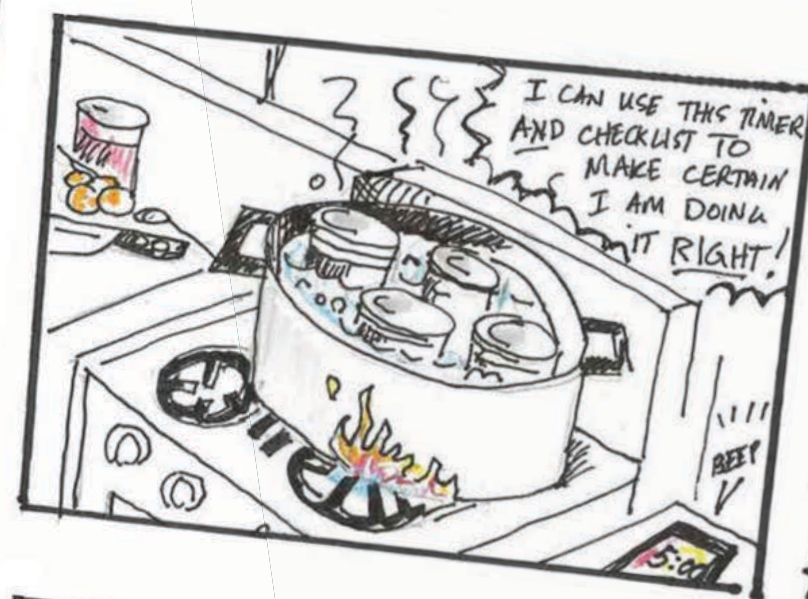


Explore

Ideate

Storyboard

CANNING PITCH

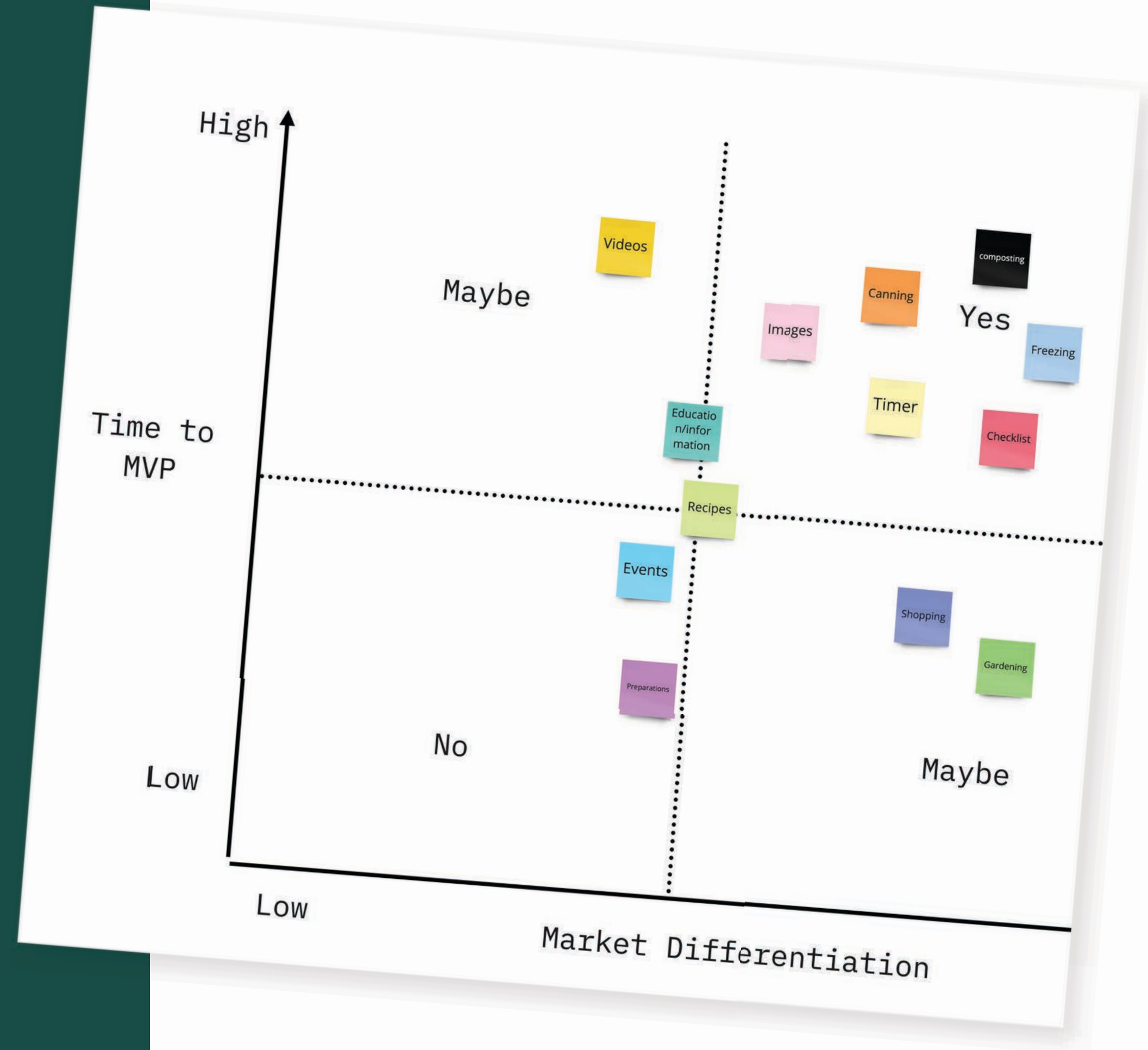


Explore

Ideate

Features

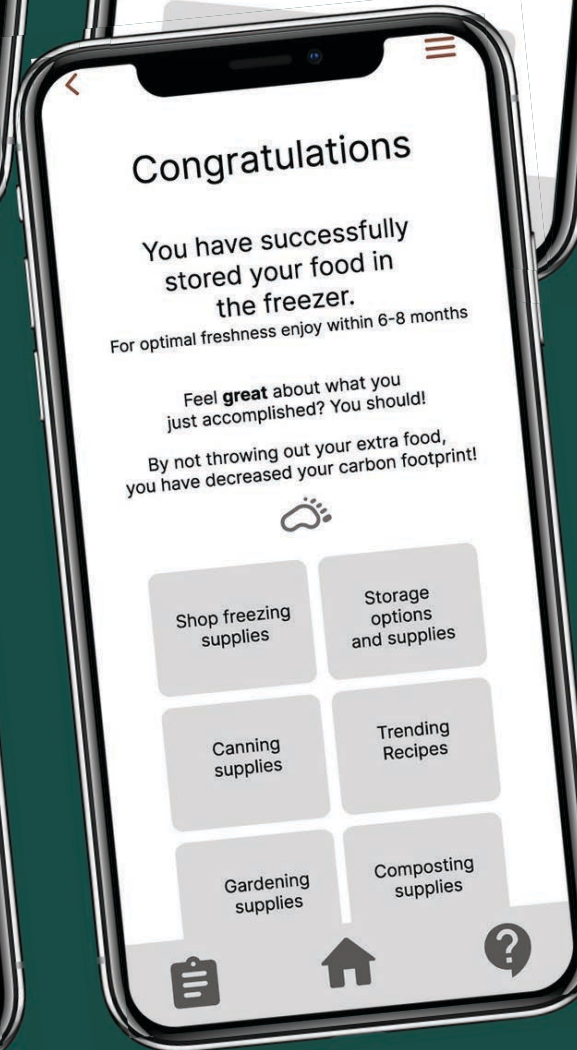
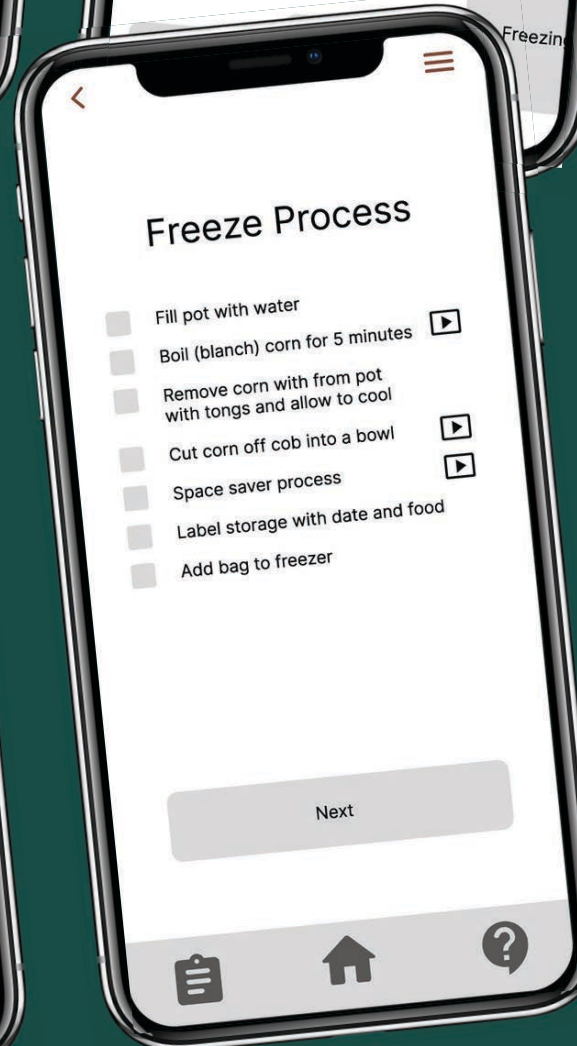
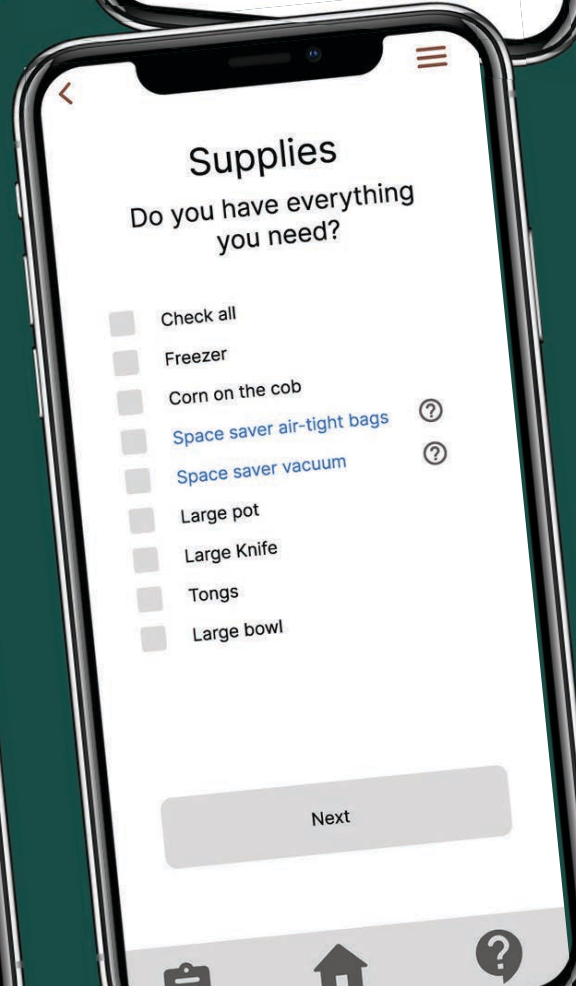
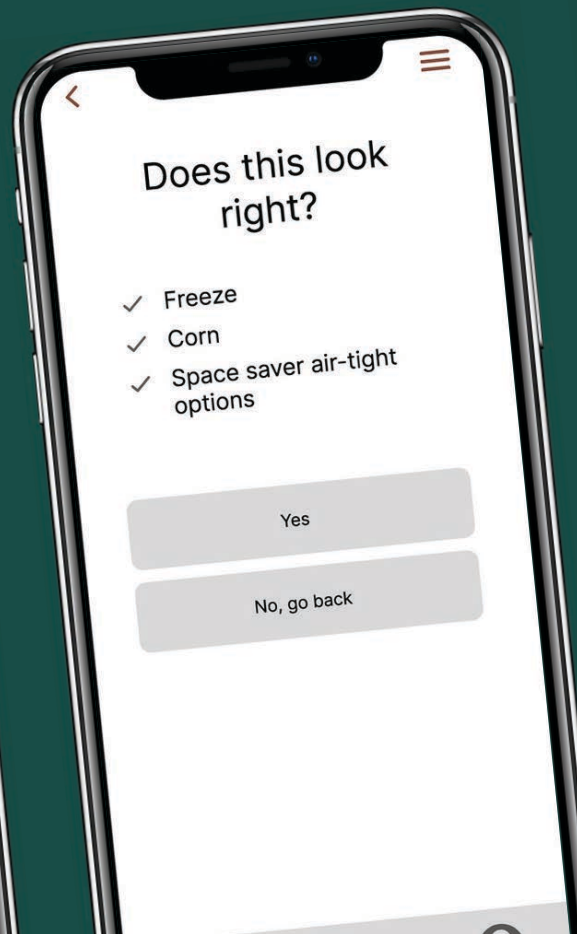
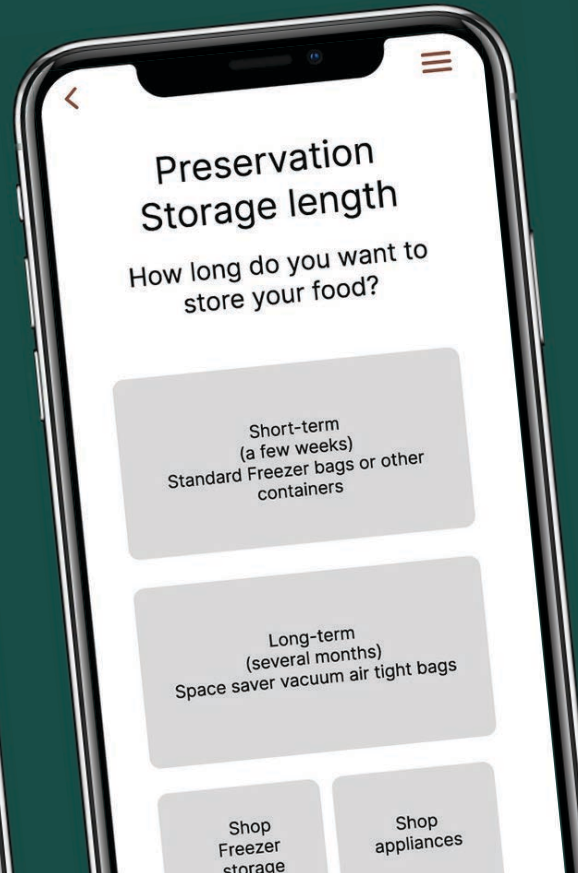
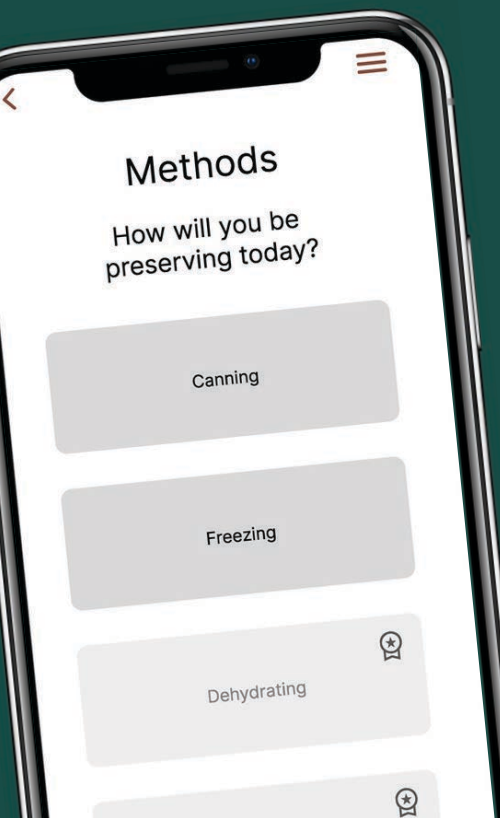
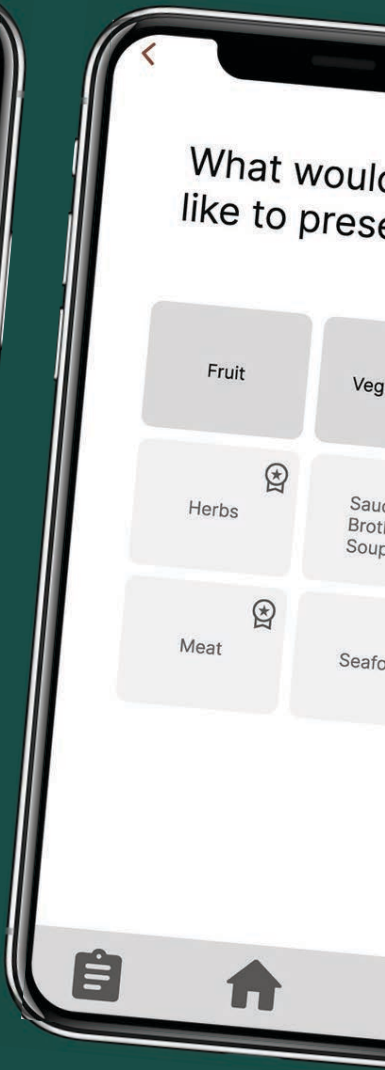
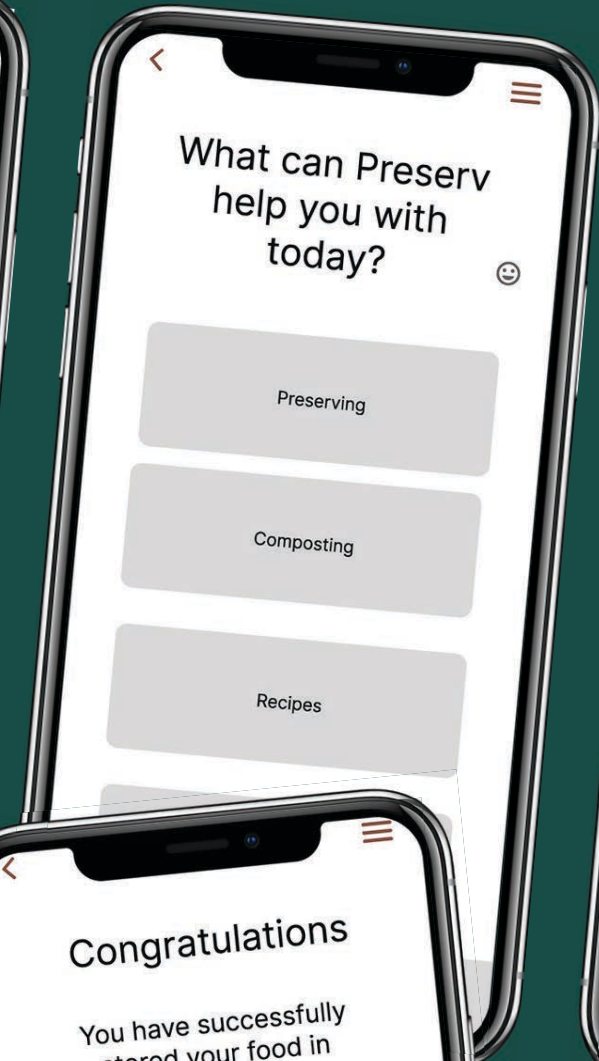
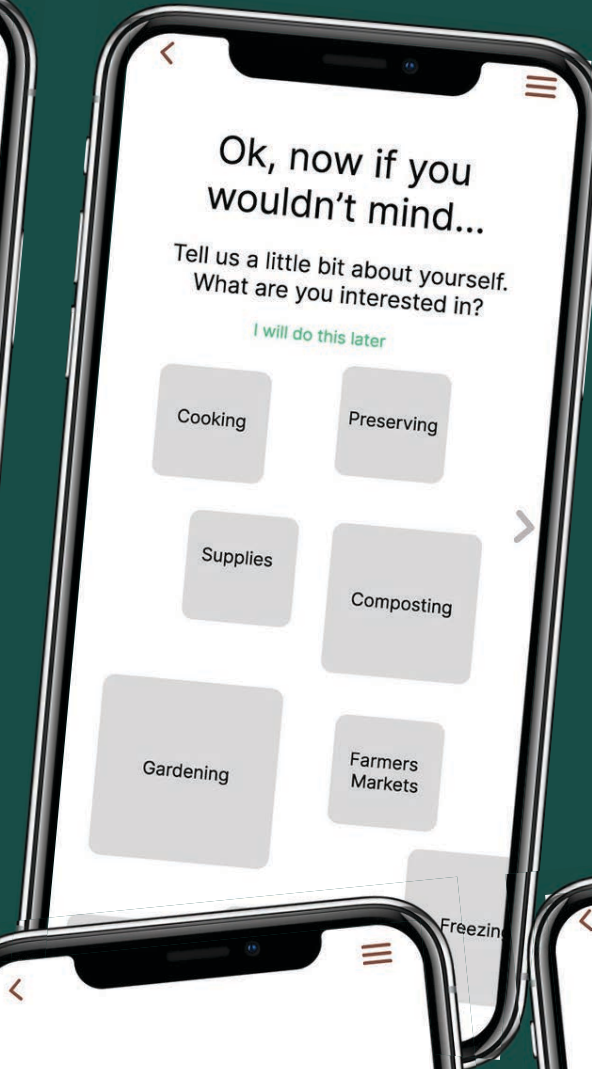
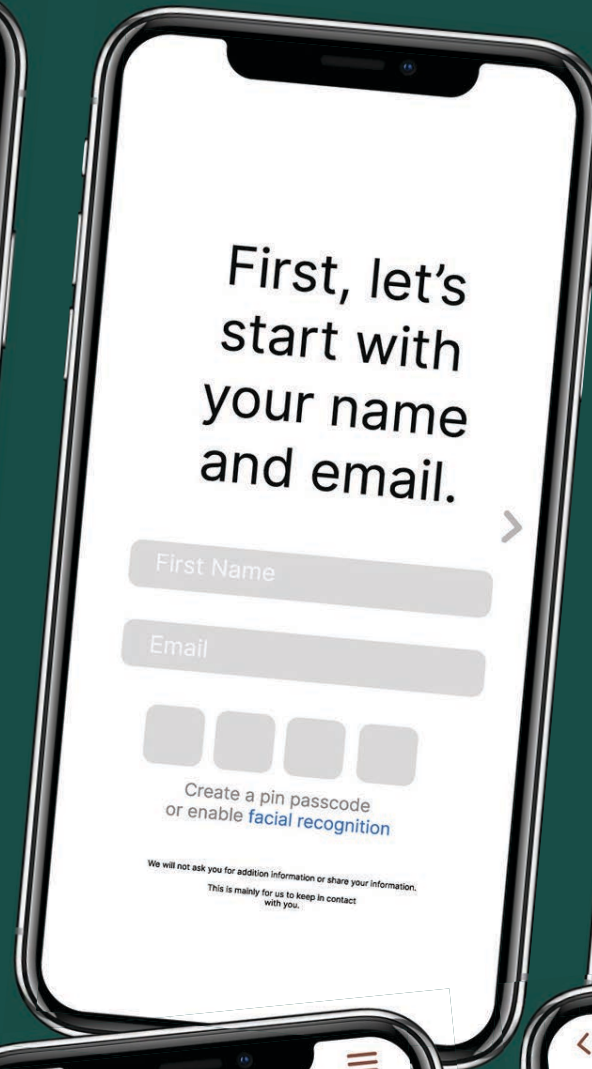
- Timer
- Supply checklists
- Process checklists
- Recipes
- Process Videos
- Glossary
- Education
- Access to industry suppliers



Explore

Ideate

Wireframes



Usability Tests



6 usability tests

Usability tests were conducted with 6 key audience user types. Tests were conducted on wireframes and more refined prototype.



Time

Walkthroughs of 3 wireframe task flows were conducted. Average time on task was around 10 minutes and total time tested around 30-40 minutes.



Remote

Users were interviewed over Zoom. This allowed users to be recorded for later transcription and note recording.



Documentation

Key findings and quotes were documented about emotions, habits and processes.

Objectives

- What are the users **emotions** navigating these tasks?
- Is the process **clear** and does the content resemble their mental model of the process?
- Is the application **learnable** and **memorable** after completing similar tasks repeatedly?
- How do the users **feel** about the **onboarding animation**- is it confusing, does it make sense and is it **pleasing** and **enjoyable**?



Usability Test Findings

Wireframes

- Users found they wanted **more options** to learn about **tools and language** of canning process
- **3/4** Users did not understand the icon for upgraded features
- **Glossary** may be necessary
- **Bottom navigation** needs connection to **composting** as a quick resource
- **Consistency** of language needs addressed



Introducing Preserv[🌱]

Preserv is a food preservation sidekick that guides users easily through food preservation, storage and composting options.

Using Preserv can reduce household food waste, cut costs and increase household food storage.



Explore

Ideate

Prototype

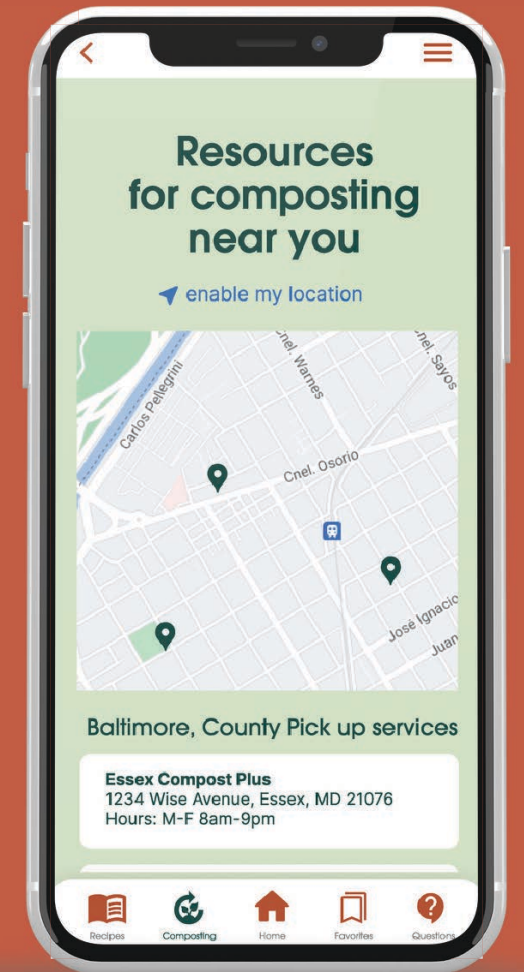
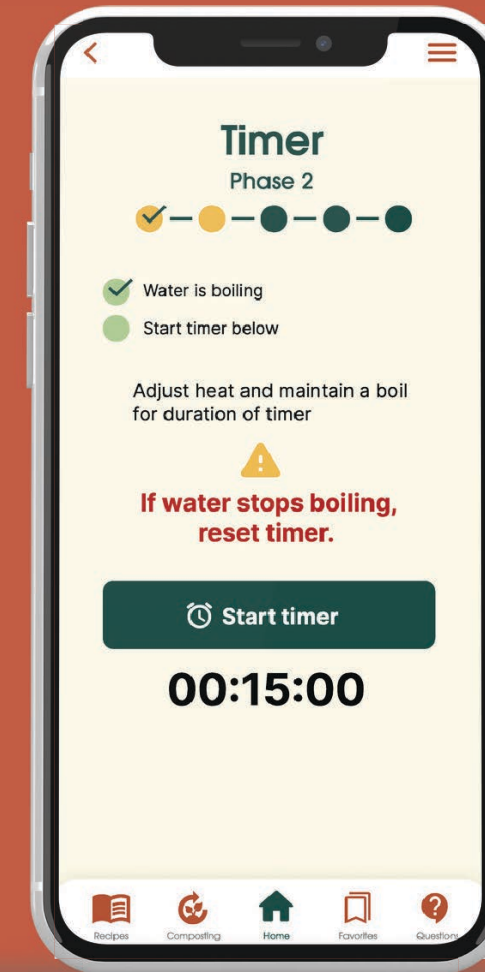
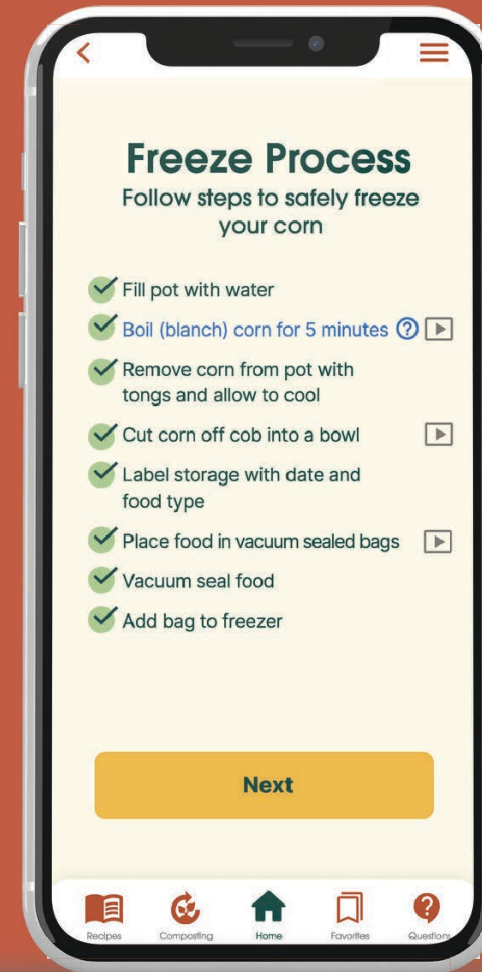
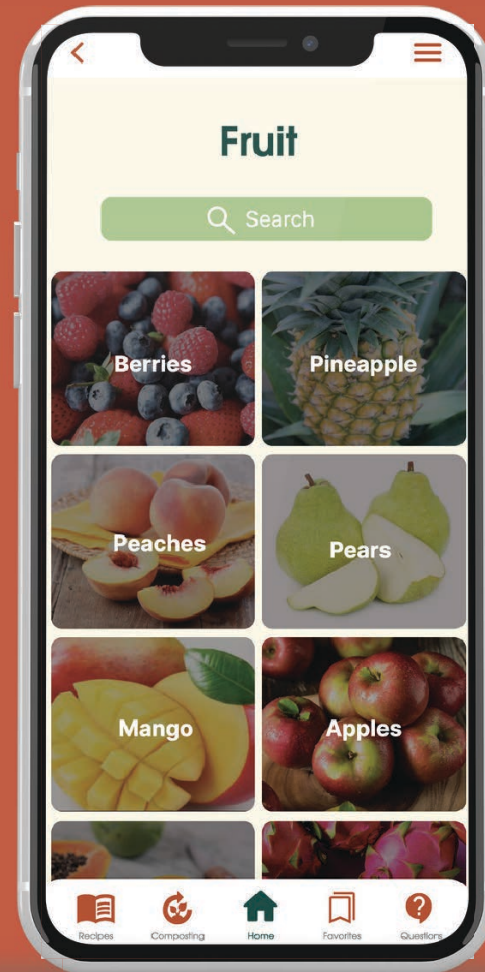
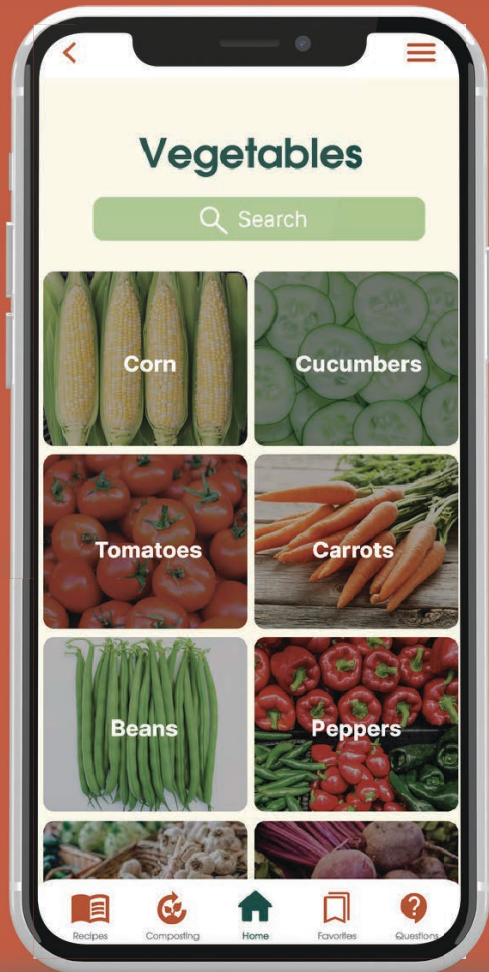
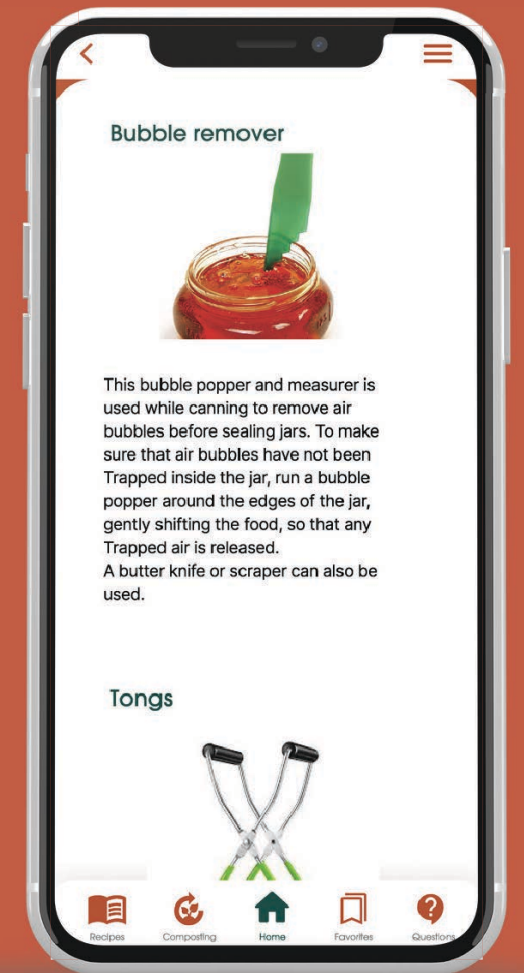
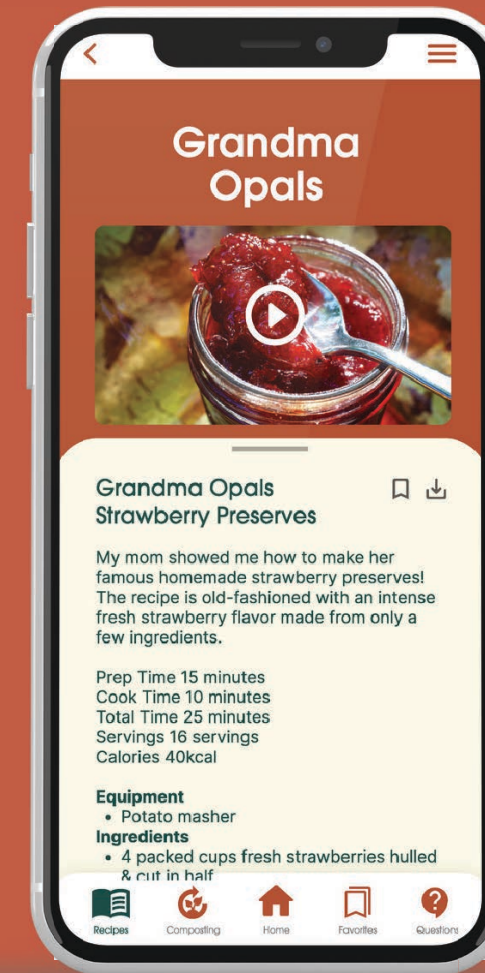
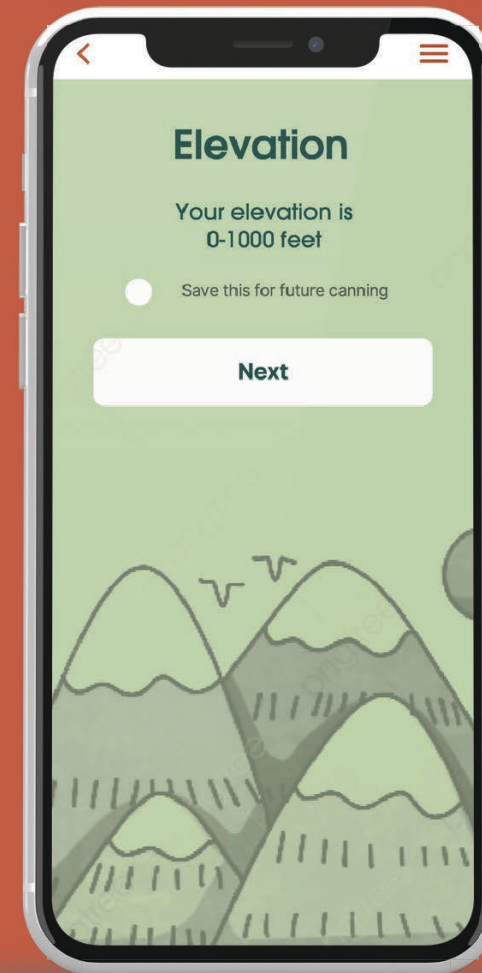
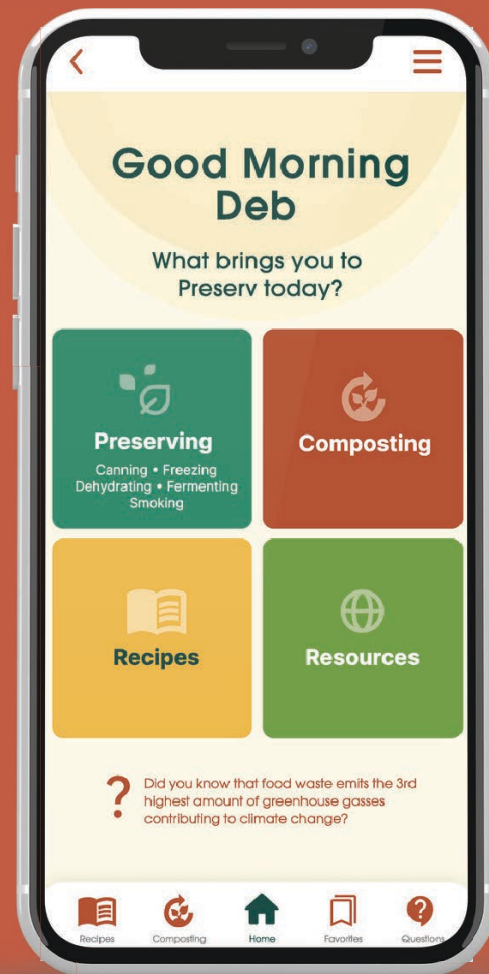


Usability #2 Test Findings

Prototype

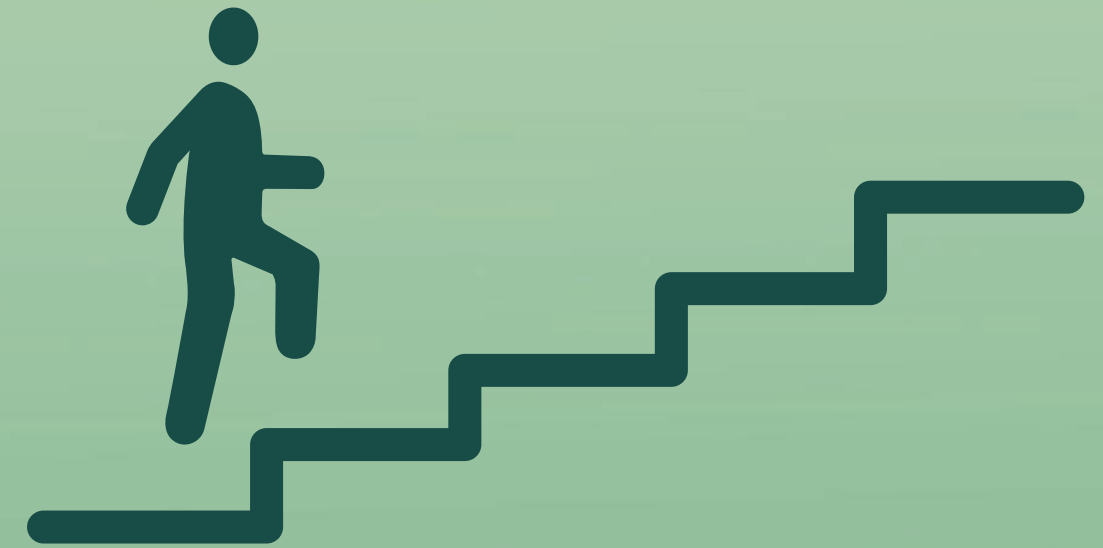
- Users wanted a more **expansive composting** section that compiles additional resources for composting
- Some sections and flows need **revisions in sequencing**
- Users were pleased with the **features** and displayed **satisfaction** of the chosen **imagery** and cataloging of produce and **data**
- Users showed an **interest** in the additional **upgraded** areas and were curious to learn more about the methods
- Experienced users were **helpful** to add details that were not provided in the process that would provide more **confidence** for users





Next Steps

- Additional **testing** and **card sorting** would be **valuable** for sequencing and sorting of sections
- Additional **research** to add **content** would increase engagement of educational elements
- A more **refined design** would enhance the **satisfaction** of the application
- **Micro interactions** can be more advanced and refined



Reflections

- Components/assets should **NOT** be created on a separate layer
- Investing in an **upgrade** of **Zoom** would have been useful, several tests ran beyond the 30 minute mark and needed to be broken into two sessions
- It was incredibly **important** to have usability tests with an **older demographic** and **less experienced** users
- The usability tests and interviews are becoming **easier** and more **enjoyable** as I gain **experience**
- Users are pleased with **imagery** and **visuals** and they have a **big impact** on **usability**



**I have become more mindful of every ounce
of food waste that my household is creating.**

Thank you

Preserv[🌱]

Minimizing household food waste
through preservation and education

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Supporting Documents

[Project Proposal](#)

[Project Brief 1](#)

[Project Brief 2](#)

[User Research Plan](#)

[Customer Discovery](#)

[Usability Test Script](#)

All images are links to full files in the following pages

References

2022, <https://www.feedingamerica.org/our-work/reduce-food-waste>

The Problem of Food Waste

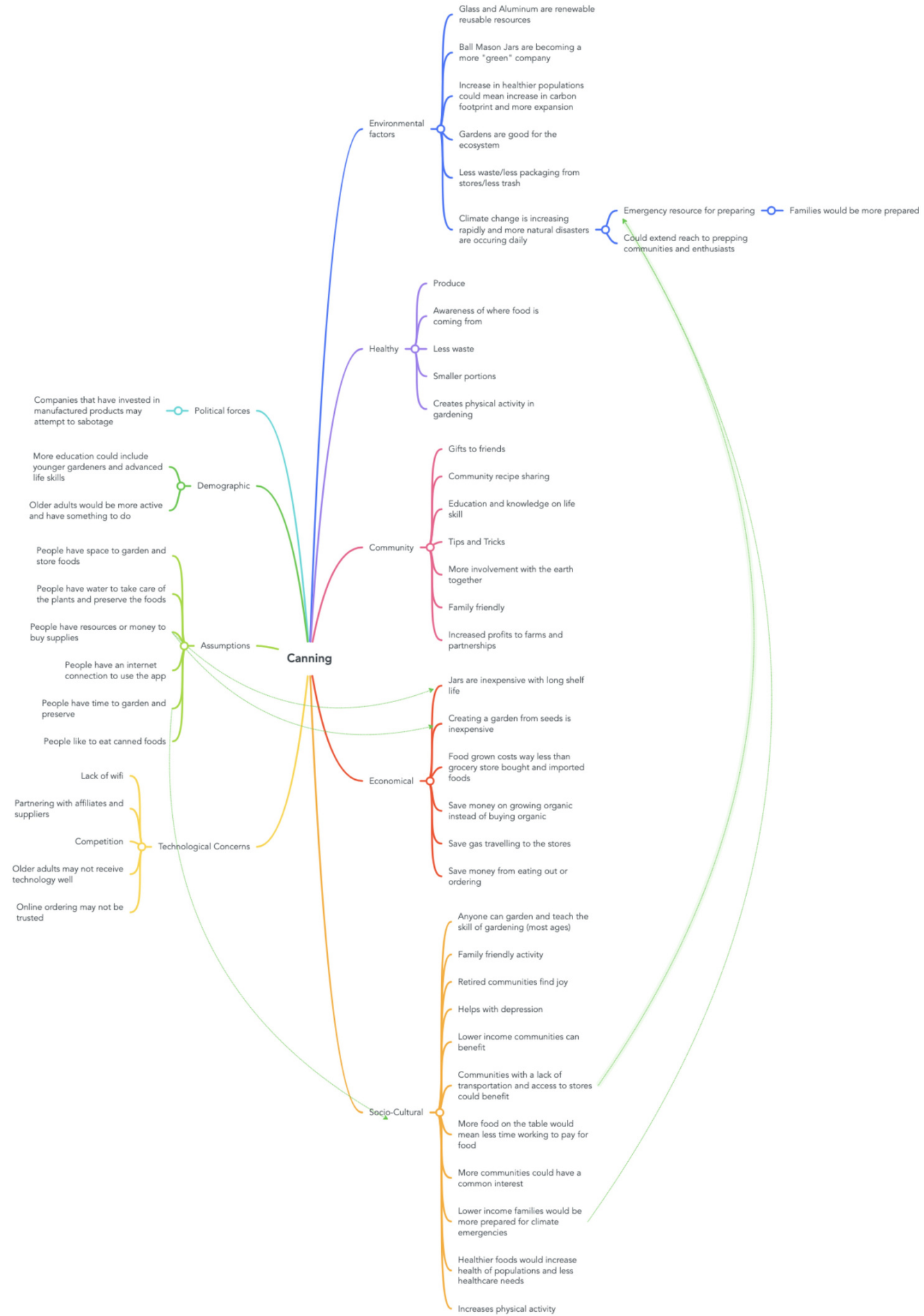
<https://foodprint.org/issues/the-problem-of-food-waste/>

Frischmann, C. and Mehra, M., 2021. MORE FOOD, LESS WASTE. *Scientific American*, 325(4)

2022, <https://www.usda.gov/foodwaste/faqs>

2022, <http://www.bayer.com>

Mindmap



Forces in the Macro Environment

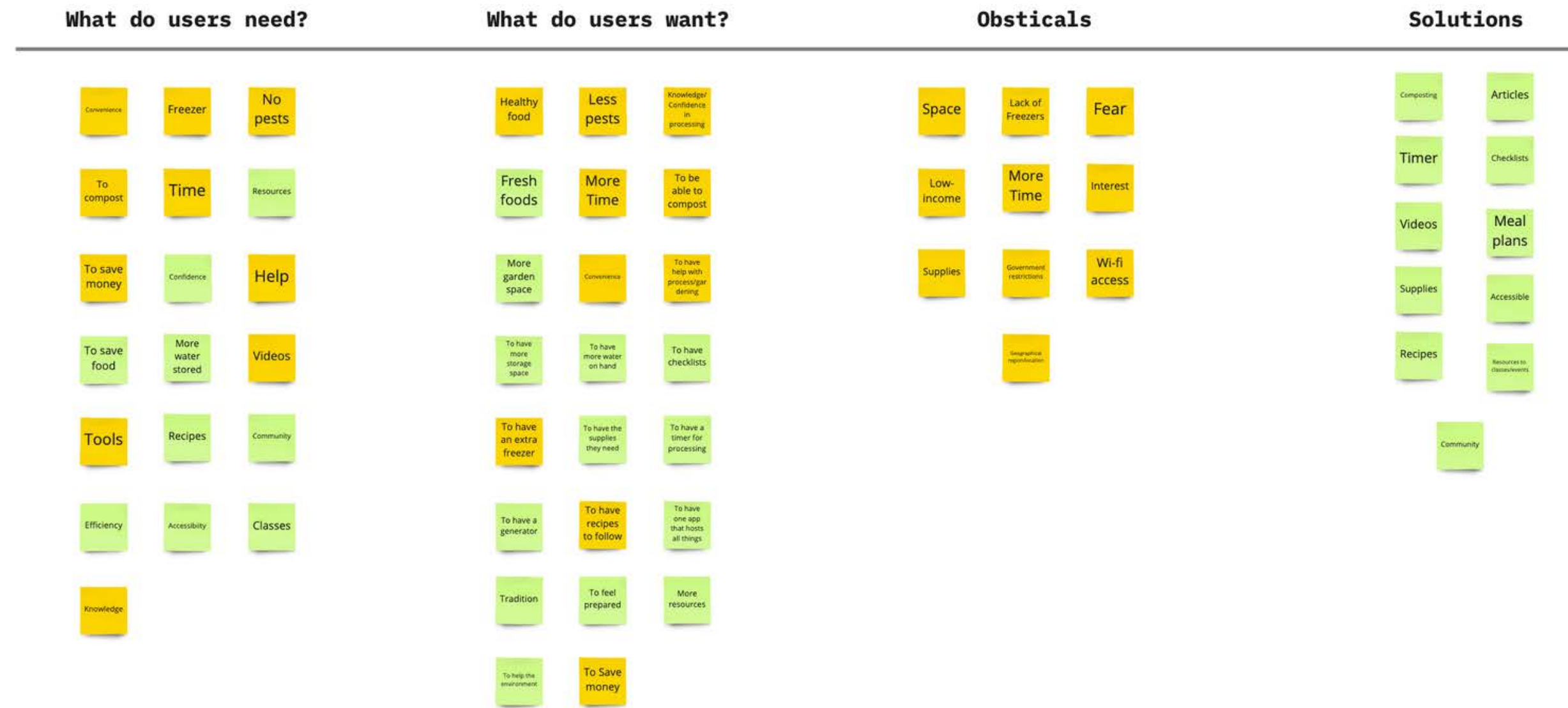


Competitive Analysis Matrix

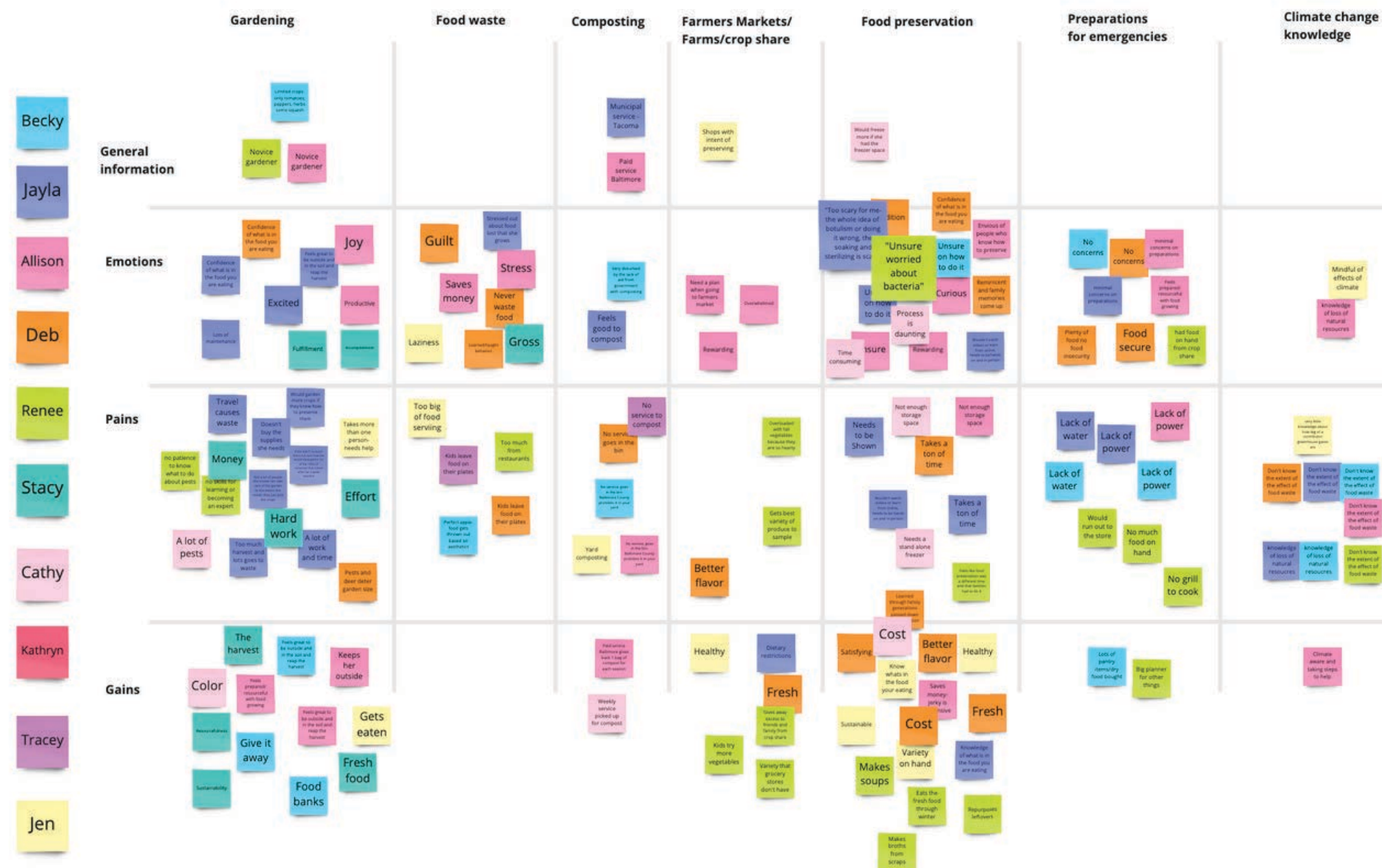
Canning app (TBD) is a tool that provides timing, checklists and resources for self sustainable, resourceful living	URL of Website or App Store Location	Purpose of Site/App/Product/Service	Year Founded	Funding Rounds	Revenue Streams	Monthly Traffic or App Downloads (note: use Similarweb.com for websites)	Primary Categories	Features	Social Networks	Content Types	App versions/Software	Personalization Features	Competitive Advantage	Region	Customer Reviews	General Notes	Questions/Notes to Team	Analysis
DIRECT COMPETITORS																		
Canning checklist & Timer	Google play and Apple Store and https://catalog.extension.oregonstate.edu/pnw689	To provide checklists and timers for canning foods	Feb. 15, 2017	None- Educationally funded	n/a	1k+ downloads (history)	Food and Drink	checklists for proper and safe canning of foods. Auto timer with notifications based on elevation of processing. Multiple types of foods for hot water bath canning and pressure canning.	For Oregon State University, FB, Youtube	ipad and mobile ios and Google	2.0.2. It has been updated 4 times since 2017. Latest version update was Feb. 28, 2020	None	It is really the main application available for supporting canning and preserving	US	"I would give it a five if it allowed me to restart the timer at anytime. Manual. For example I closed it by accident and I had to start from the beginning again, I couldn't put the time that I should of had, only Options was to start all over." -Lida R	This app is basic in its development. It uses standard checklists and a timer. It is very simple in its utility and seems to be the main app to use. It doesn't really have any competition and it does not have any revenue streams. It was developed by Oregon State University	What is this app missing that should be included for canning enthusiasts and to simplify the utility?	This app is a great start for a useful utility. It could have robust features and be incredibly useful. There are opportunities to bring in partners for advertising and affiliates
Pickles & Preservative Recipes- Edutainment Ventures, LLC	iOs and Android http://www.edutainmentventures.com/contact_us.php	To provide recipes for pickling and preserving foods	2016	private	In-app purchases	2016- updated 2018	Food and Drink	Recipes for pickling and preserving, nutritional values	FB, Twitter, YouTube, LinkedIn, Google+	iOs	1.2 June 2, 2018 latest update. Updated twice since 2016	none		US				This app is mainly for recipes and does not have the features that a full feature app could have. Could be an affiliate or partner
Preserve Smart	iOs and Android- https://apps.chhs.colostate.edu/preservesmart/	to educate as a resource for canning and preserving	March 3, 2017	private Educational		1k+	Canning, preserving foods	Reference for methods, recipes and elevations	FB, Insta, Twitter	ipad, iphone, Android, watch	1.0.1 2018	none		US	Great start—"I love this app! I wish it had more. It has a great potential to be a comprehensive database!" -MesSarahstanley	This app is more of a reference for information regarding canning and preserving. It does not offer any tools. This app was developed by Colorado State University		This app is an information only app and does not include any tools
Canning and Preserving Apps-Riafy Technologies	Google play	REcipes for pickling and preserving			app cost \$1.99 and in-app purchases	1k+	food and Drink										This app needs to be researched more	This app is a part of a larger chain of utility apps.
Canning and Preserving Recipes- Yan Lee	app store- iOs only	canning and preserving	May 31, 2017	private	\$1.99 and in-app purchases	1k+	Food and Drink			ios Devices							This app needs to be researched more	
INDIRECT COMPETITORS																		
Ball Mason Jars- Newell Brands	https://www.ballmasonjars.com/	canning and preserving foods and selling supplies	November 30,										Biggest supplier of canning jars, well known, been around for decades	Colorado-US		Ball Corporation as the 59th-largest corporate producer of Air pollution in the United States with an estimated 4.57 million pounds of toxic air released annually [52] The PERI report for 2006, using data from 2005, ranked the Ball Corporation 54th on its Toxic 100 list; PERI's report for 2010.	How can we include a partnership with Ball to advertise and promote their supplies?	
Masterclass																	Could we offer Master classes?	
Amazon										Books							Would amazon be willing to partner to promote suppliers stores or books?	
National Center for Home Food Preservation																	Need to research more into this	

Affinity Maps

Reducing Food waste in households through gardening/canning/preserving



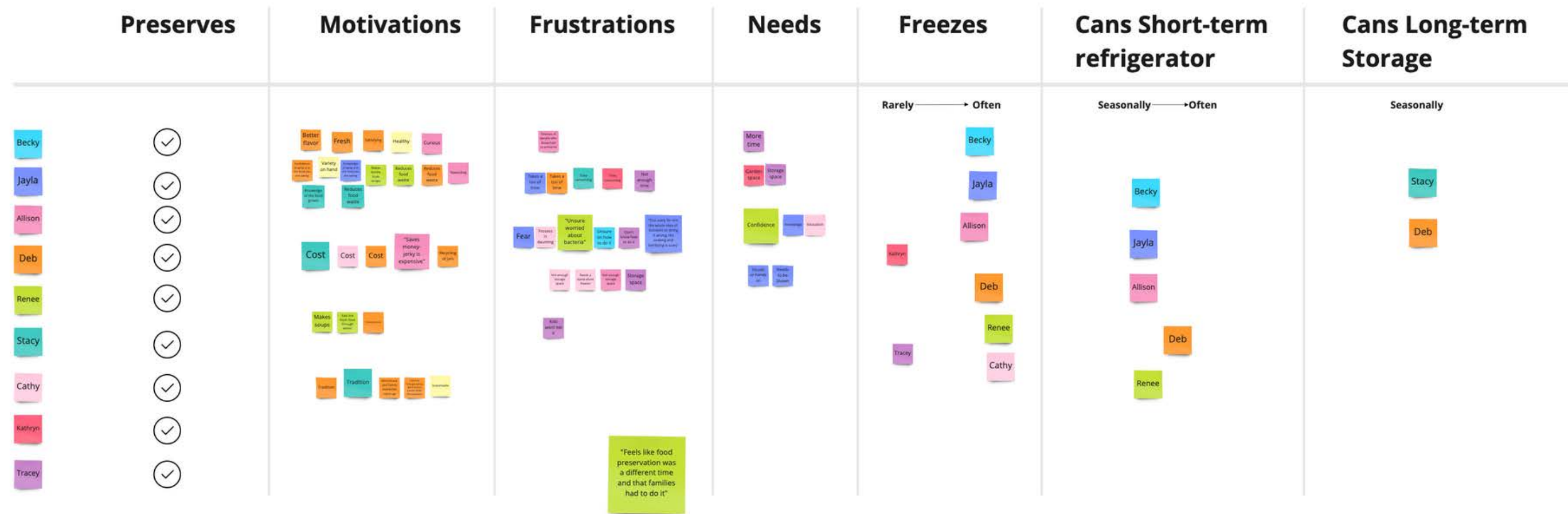
Affinity Maps



Affinity Maps



Affinity Maps



"Feels like food preservation was a different time and that families had to do it"

Affinity Maps

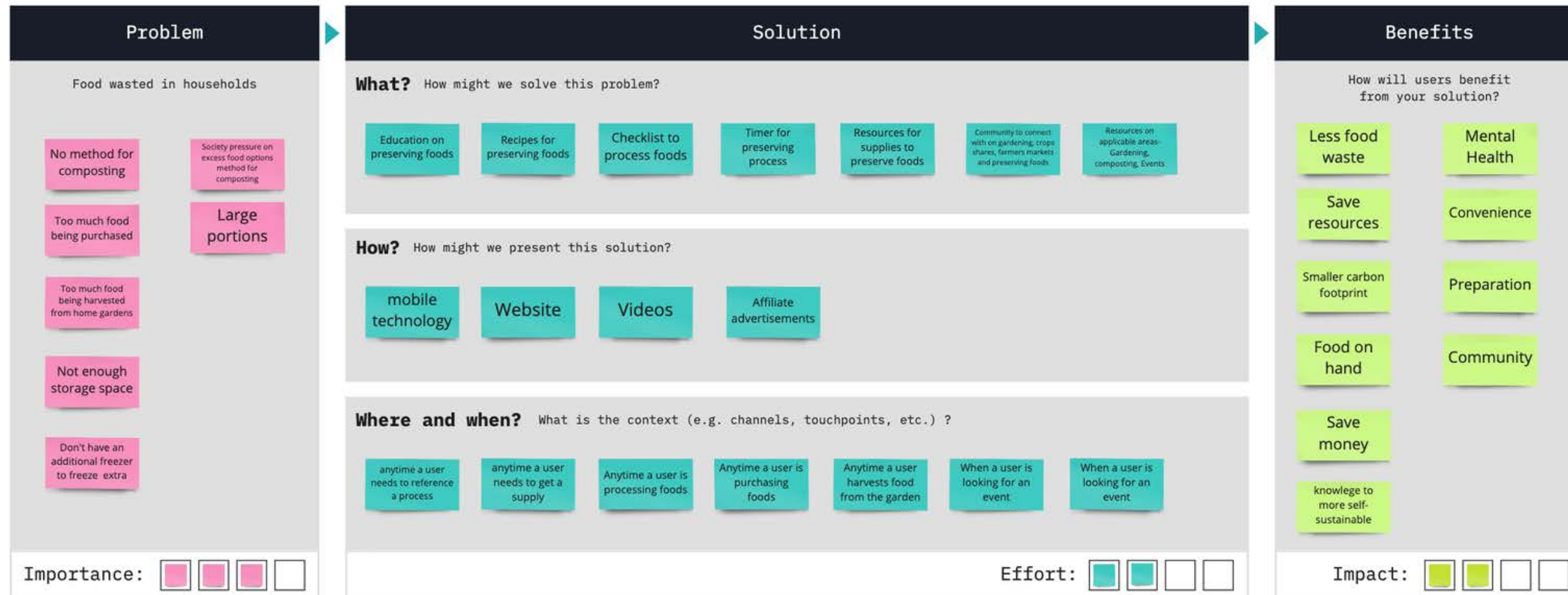
Canning/Preserving/Saving

Elevator Pitch

A time-saving, resourceful application to reduce household food waste by utility and community on the processes of canning & preserving food.

Target users

Households with extra food on hand	Home gardeners	Low-income families	People mindful of their health
Pet owners	Preppers	People who cook often	Farmers Market vendors



POV/HMW Brainstorm

Preserv problem statement brainstorm

POV

HMW

Solutions

Brenda, a gardener needs to buy a row cover for her fall crops and is unsure where to purchase

How might we make shopping for garden supplies efficient and simple?

- Advertisements leading to websites populated by search inquiries
- Shopping feature with listed partners by categories

Brenda, a gardener wants to preserve her June strawberries and is unsure if she has the proper supplies

How might we inform our users on the supplies needed when preserving foods?

- Checklists of items needed with hyperlinks to what the supplies are and where to purchase
- Provide an area with categorized recipes
- Generate a list of items

Brenda, a gardener has dietary restrictions that prohibits her from eating garlic and onion, but wants to pickle

How might we create a space that is inclusive of users with dietary needs?

- Add notes to recipes
- Feature a separate area for information
- Provide a feature that removes ingredients from recipes

Brenda, a gardener has a free weekend and is not aware of any farmers markets, but would like to find some

How might we provide events to our users in an organized and timely method?

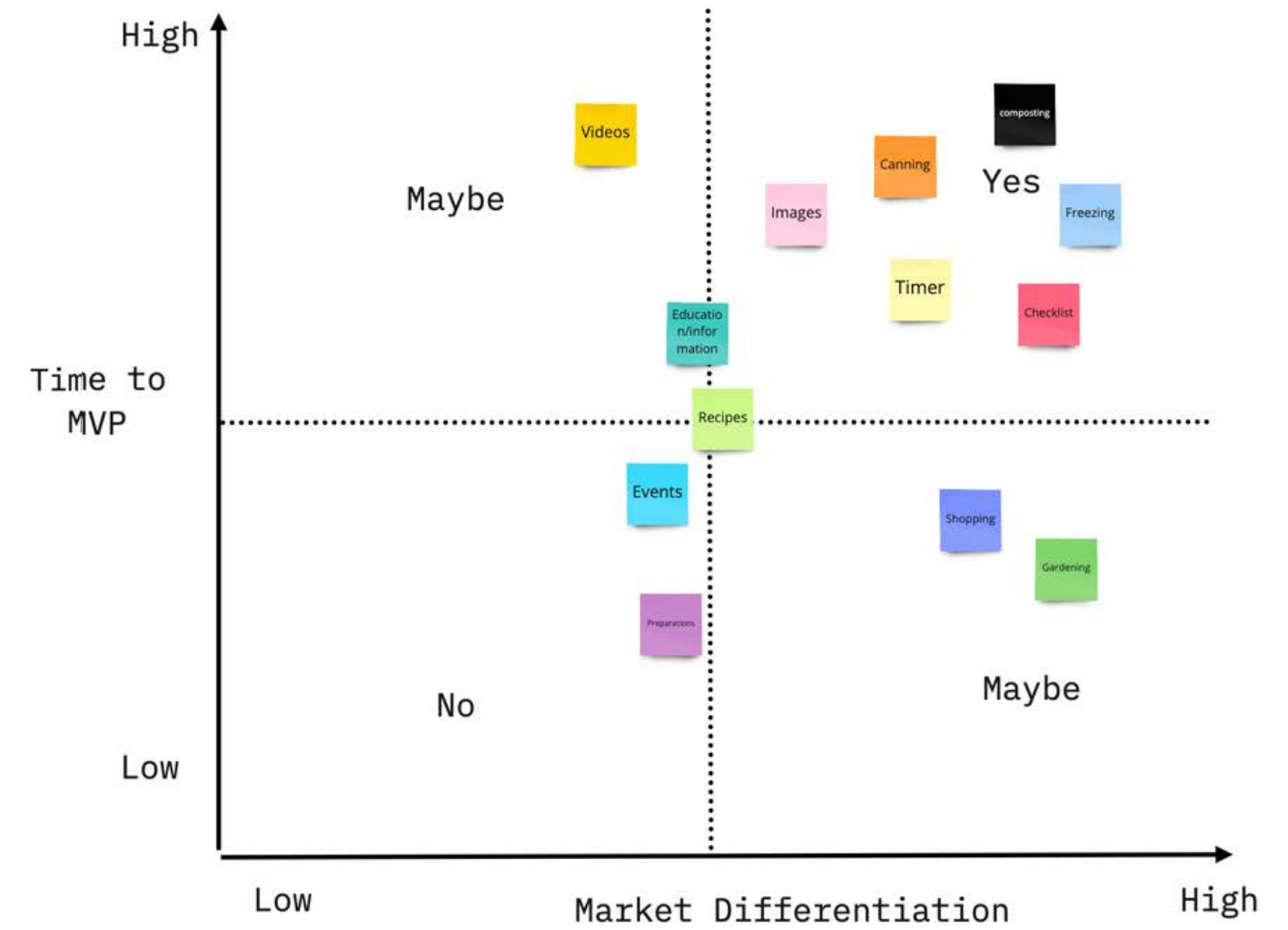
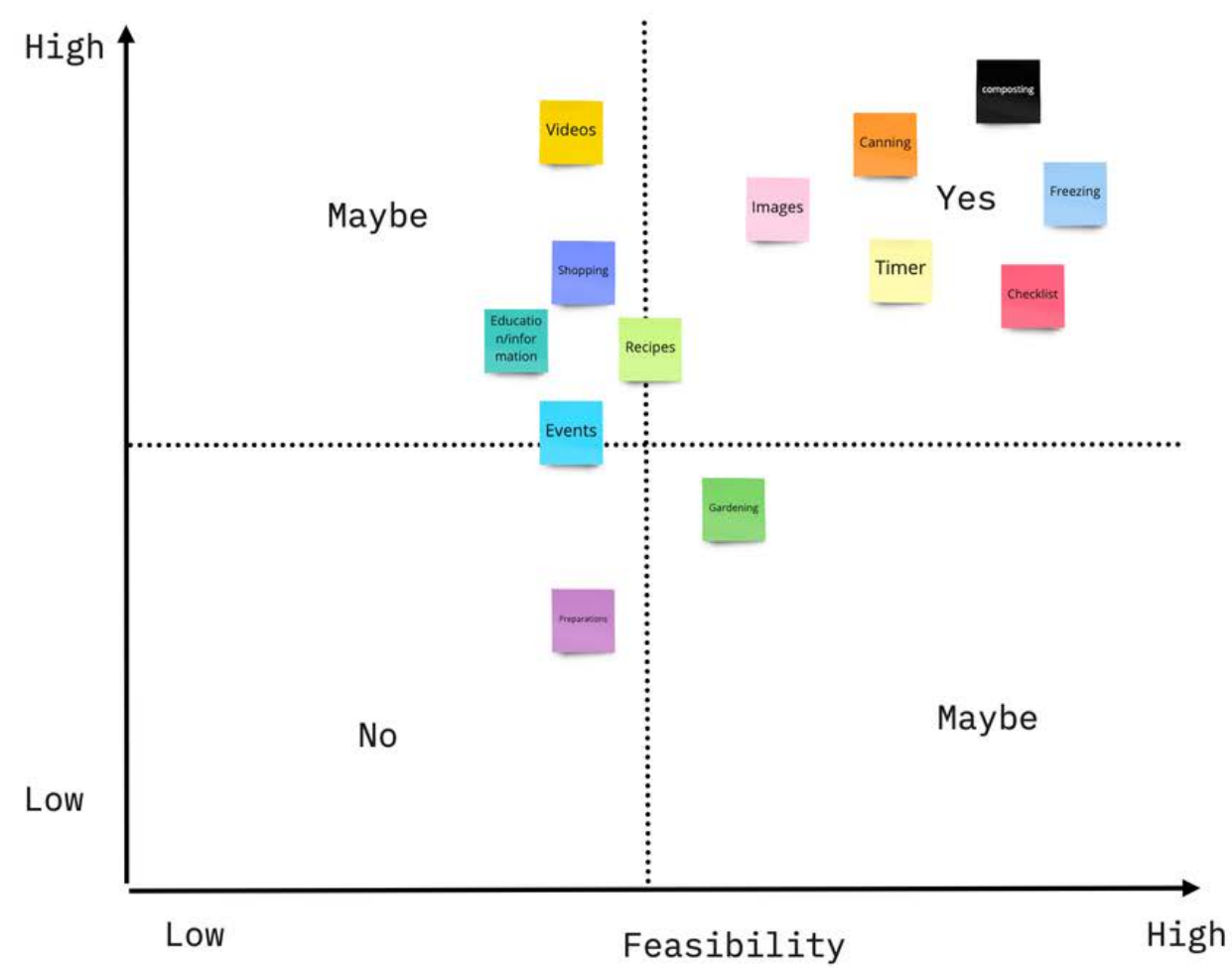
- Create a community board to post approved events
- Provide notification on events that have been favorited
- Provide calendar option to add to personal calendars

Brenda, a gardener wants to can her tomatoes for long term storage and doesn't know how long to process them

How might we provide a tool that aids in making certain all steps are properly timed for processing?

- Provide a timer with a countdown feature
- Reinstate the time before the timer begins
- Allow for notifications about the timer being finished and an alarm to move on to the next steps

2x2 Matrix charts



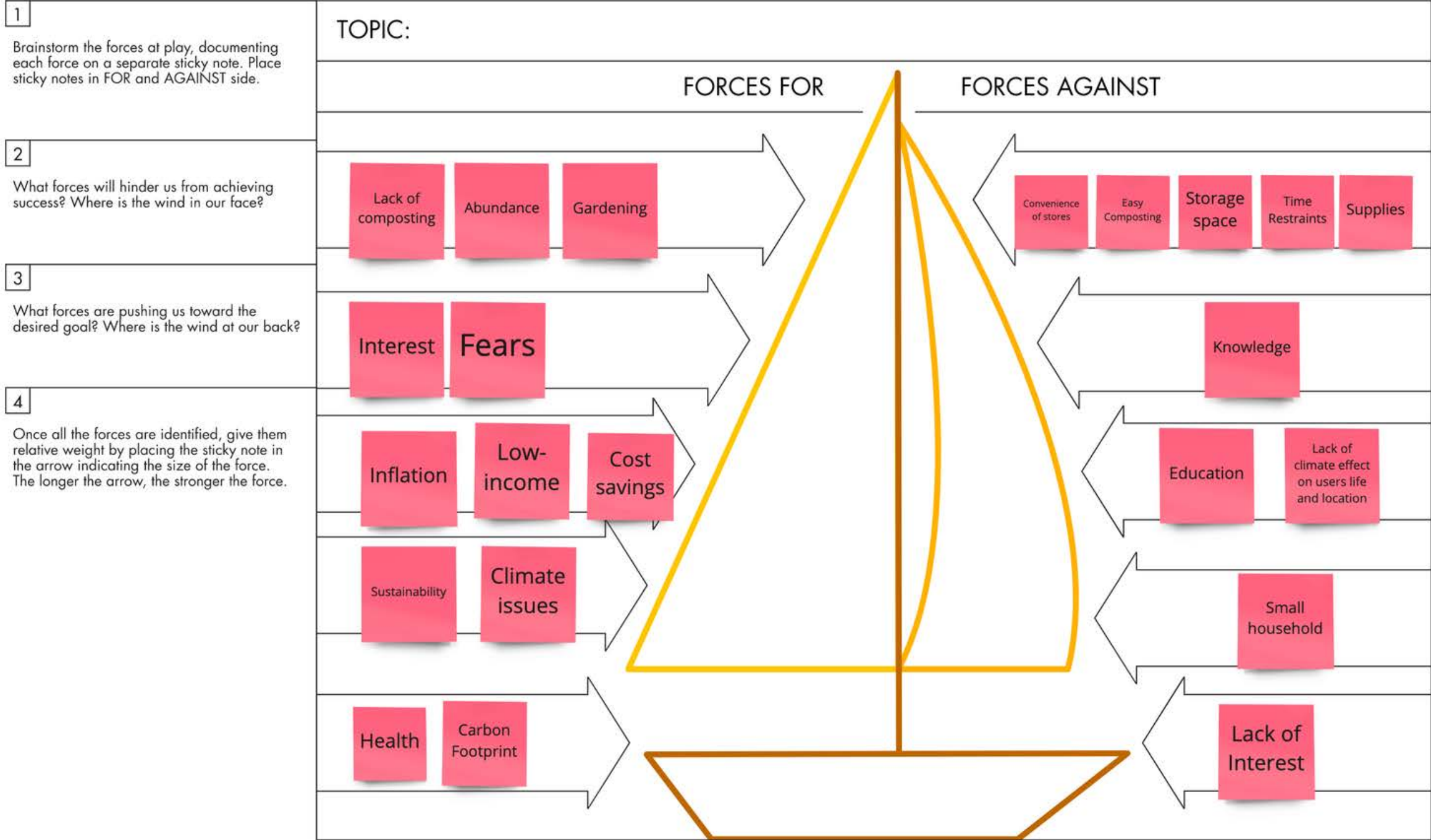
SWOT Analysis



Force Field Analysis

Force Field Analysis

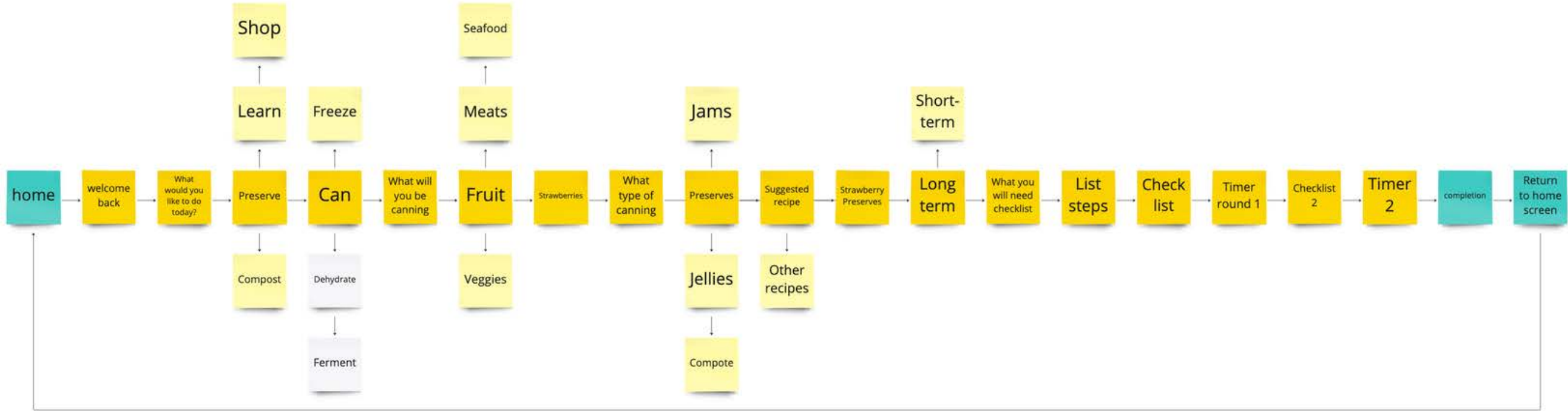
Compare forces working for and against an issue. Visualize a high-level sense of the landscape around a specific topic, goal or vision by determining pros and cons, or environmental and social forces affecting it. Forces in favor can lead to champions and benefits; forces against can lead to resisters and objections.



User Stories/ Flow Charts

Holly

Holly has harvested her June strawberries. She has been eating them and made delicious shortcake- but her harvest is extra abundant this year and she wants to save them and try her hand at strawberry preserves. She has used BASIC *Preserv* before and opens up the app.

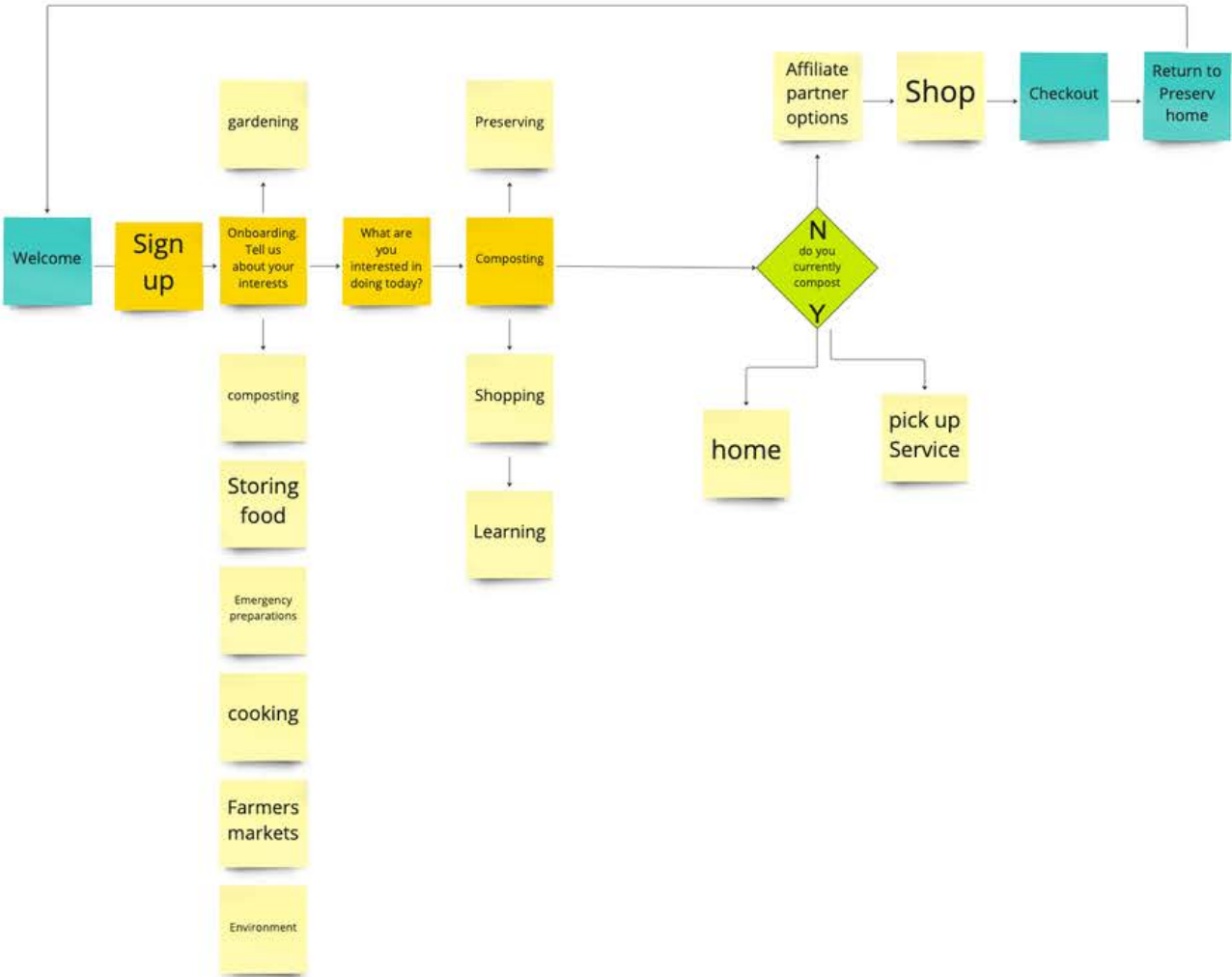


Upgraded version

User Stories/ Flow Charts

Brenda

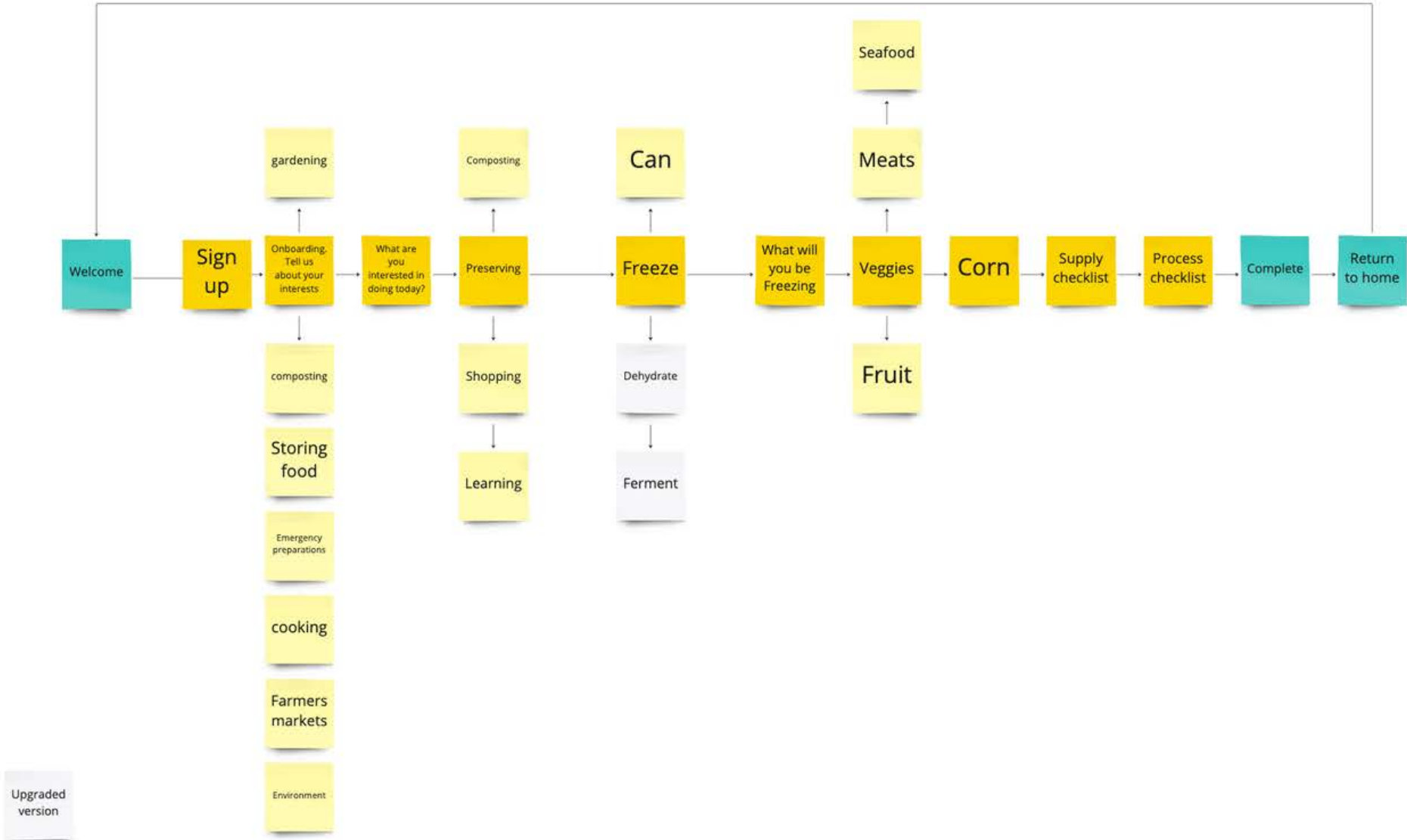
Brenda has two children and a full-time remote job. Her family ordered from the hibachi grill last week and she and her family are sick of the leftovers. She feels guilty to throw the food away and heard about *Preserv* from a co-worker. She decides to give it a try to see about composting.



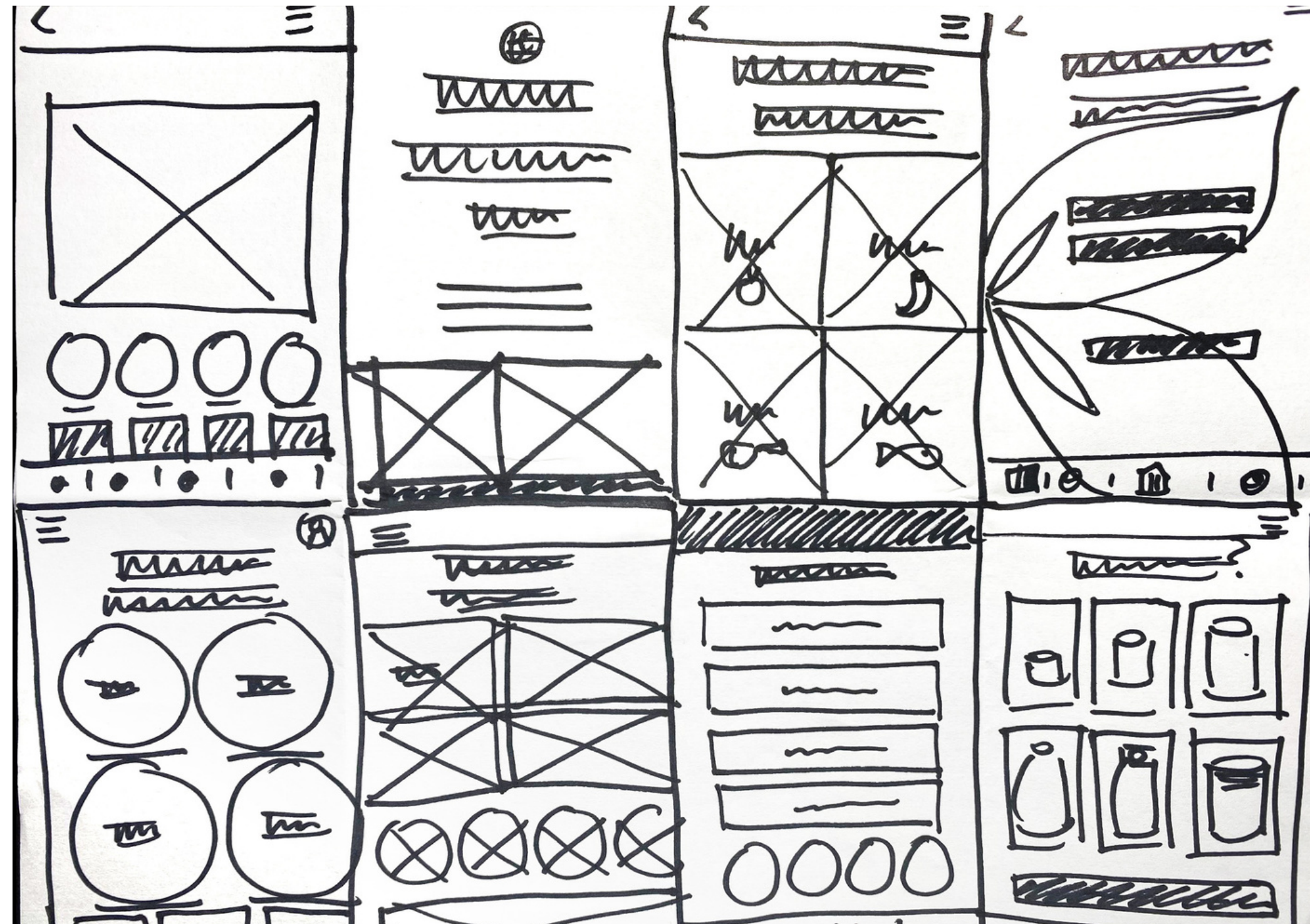
User Stories/ Flow Charts

Elaina

Elaina recently learned that food waste is a top contributor to climate change. She wants to find methods to save more of the food that she purchases from farmer's markets. She has just bought a ton of sweet summer corn and wants to know the best method to store it to enjoy in the cold winter months ahead. She looks up preserving/freezing in her search engine and finds *Preserv* in the search results. She reads the description and decides to give BASIC *Preserv* a try.



Crazy 8's



Storyboard part 1

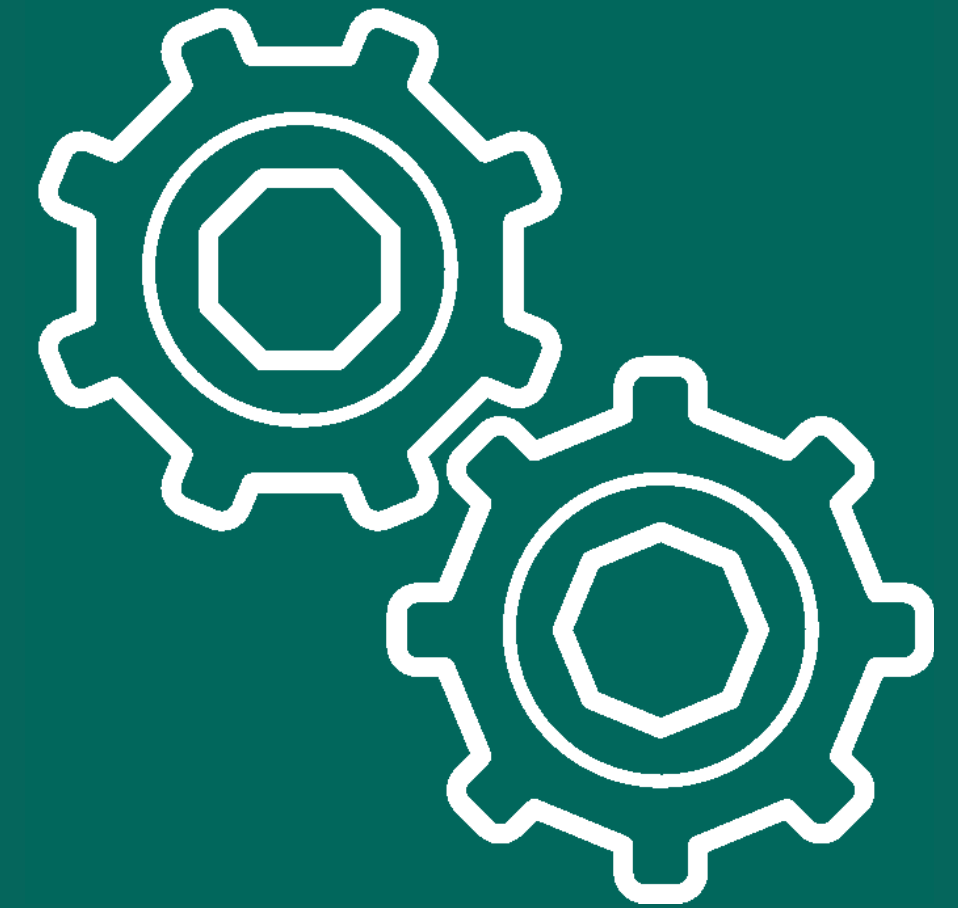


Storyboard part 2



Key Performance Indicators

- Assess and track **social media** trends
- Retrieve analytics on the popularity of the related search terms of "**preservation**" and "**sustainability**"
- We can measure user **downloads** over timeframes
- Advertisement click **traffic**
- Customer support inquiries and feedback
- Surveys on interest, composting and preservation frequency with location data
- Search engine analytics
- Social media response and traffic analytics
- Digital Ad traffic from advertising on related websites/affiliate applications.



Initial Risks Mitigation

- Vetted, researched and approved recipes
- Approved affiliates and partners with the aligned vision
- Accessibility and inclusion for dietary needs and user needs
- Language accessibility must be addressed



Findings to address solutions for:

- Some preservation methods take a **lot of TIME** (*canning, smoking, dehydrating*)
Many users stated they do not have time to preserve foods
- Preserving foods for storage takes **SPACE**. 3/10 users noted they **do not** have the additional freezer space or storage space in their homes
(however, they all stated they would like to have it in the future)
- Not everyone has the same **CONCERNS** about emergency weather scenarios.
(Education through the app may raise awareness on household preparation)



“The whole idea of botulism or doing it wrong, the soaking and sterilizing is scary.”

Eco-Friendly Elaina

User Type: Farmers market shopper

Profile: Household of 2

Gender: Female

Age: 43

Location: Suburbs

Responsibilities:

Handles shopping

Composts

Cooks often

Recycles

Story

Elaina is very aware of climate change and its impacts. She does what she can to make her carbon footprint small. She buys sustainable products and shops at local farmers markets.

Tasha tries to plan her meals, but finds that she has more than her share of produce occasionally and can't seem to cook it all before it can go bad. She doesn't know how to preserve her excess.

Occasionally she can preserve her excess in the freezer, but her freezer is small and doesn't hold a lot of items.

She has looked up how to preserve and can her excess produce, but she is a hands-on learner and isn't comfortable learning the process with videos or directions. All the resources she has looked up are inconsistent with their directions and times and she doesn't know what her elevation is.

She ends up feeling guilty when she composts her extra, but she at least feels as though she isn't throwing it in the garbage.

She feels as though she would save more if she knew how to can her food or had another freezer to store it for later.

She would love to garden, but she doesn't have a yard. She would be interested in doing an indoor garden, or a small porch garden for herbs and some produce, but doesn't know of too many companies to buy from or where to get the supplies.

Goals

- To learn how to safely preserve foods
- To find recipes to preserve
- To buy supplies for preservation and storage
- To be aware of local farmers markets
- To eat healthy
- To have an indoor or porch garden

Frustrations

- Hates to throw food in compost bin
- Can't find consistent methods for preserving
- Isn't sure how to find her elevation
- Doesn't want to make her carbon footprint any larger
- Doesn't have a large enough freezer to preserve her food by freezing

“I would freeze more if I had the freezer space.”

Fears

- She is worried she won't preserve her food safely and might get sick
- She is worried about the environment and not doing her part.
- Worries about climate change and the future
- She is worried about throwing out her food and creating too much waste, even when she composts

Wants

- To have more storage space and supplies
- To have an additional freezer
- To feel comfortable with preserving foods
- To have one point of reference for her preservation needs
- To have an indoor garden space and a go-to shop she can use that handles indoor gardening
- To know more about what else she can do to aid in slowing climate change

Uses often

- Google
- Online recipes
- Farmers markets



"Having a property that is self-sufficient is something I would invest in immediately."

Homestead Holly

User Type: Preserving enthusiast

Profile: Amazon position (remote)

Gender: Female

Age: 47

Location: West Virginia

Responsibilities:

Shops for her family

Cooks for family

Preserves food

Takes care of the dogs

Story

Holly works from home and loves it. She spends time in her garden and prepares homemade foods for her family of four.

She harvests lots of produce from her garden year-round. She loves being outdoors in the garden, it keeps her mood in-check being connected to the earth.

She saves money by growing her own food and preserving it. Her shopping list for the grocery store is minimal- just some supplemental items to aid in her recipes. Many recipes she retrieves on the internet need ingredients she cannot grow.

Holly likes to preserve the food she grows and doesn't want to waste it. She uses all the food she has as efficiently as she can. She dries herbs, fruits out-of-season and freezes homemade broths from scraps. When she doesn't recall or know how to preserve something she looks online to other experts. Sometimes it gets confusing on what the best practices are.

Although she is as efficient as she can be, she still has to dispose of some organic waste. She puts the food in the garbage disposal. She isn't sure where that food goes, but she knows it isn't going into the garbage can. She cannot compost for her garden.

Holly has tons of storage space for her canned items and she invested in a stand-alone freezer.

Holly gets tired keeping up with all the labor of her hobbies, but she feels confident that she has healthy food on hand during any scenario. She is grateful that she can provide nutritious foods to her children and they are in good health more often than not.

Goals

- To live as off-grid as possible
- To feed her family healthy food
- To use the resources she is given
- To balance work and family
- To be prepared

Frustrations

- She finds online inconsistencies in her resources
- She wishes she could compost for her garden
- She cannot remember how long to preserve things for sometimes
- There are a lot of steps in preserving sometimes and she wished she had a resource to remember them all
- She doesn't know any schedules of local farmers markets and wished she had more access

Fears

- She is afraid of disasters
- She is concerned over what is in her store bought food
- If the power goes out she is afraid she doesn't have a generator
- Wasting food

Wants

- She wants to be self-reliant
- She wants to feed her family fresh food
- She wants to have a single resource for canning and recipes
- She wants to compost

Uses often

- Online recipe sites
- Google
- Amazon
- Garden companies for supplies
- Home depot
- The kitchen

"I am a huge fan of making soups. I save my food scraps and make broths and freeze them."



"I am very disturbed by the lack of composting in my county."

Busy Brenda

User Type: Mom

Profile: Web developer (remote)

Gender: Female

Age: 45

Location: Baltimore, MD

Responsibilities:

Is a partner of a startup company

Has twins under 8

Grocery shops for family

Story

Brenda works from home and is struggling as a mom and a partner of a startup company. She has a high income and many perks in life.

Her time is very precious and she orders groceries online for delivery. Convenience is at the forefront of her mind and focuses her grocery order mainly around what her twin boys will eat. Occasionally she finds herself ordering too much produce that she doesn't have time to cook. They often order for delivery, and no one eats the leftovers.

She is not comfortable with the health of the food her family is eating, but the boys are picky eaters and she doesn't have time to cook separate meals for her and her spouse. She wishes she had more food stored on-hand that the boys will eat that is healthy and convenient.

She has a desire to garden and cook healthier foods for the family, but she just doesn't have much time and doesn't even know where to start.

Her county laws prohibit composting in the yard and she does not have a county service for pick up. Where else would she put the food waste but the garbage can?

She is not completely aware of how food waste affects the climate except it probably wastes a lot of energy to grow food.

She cares about the environment, but doesn't think she would make much difference with her busy life and family. She really doesn't know how to help or what she can do.

Goals

- To conveniently feed her family
- To buy foods that get eaten
- To find a method for her food waste that doesn't negatively affect the climate
- To be more aware of climate change
- To have a more sustainable lifestyle
- To be more active and spend more time outdoors

Frustrations

- She has no method for composting and doesn't know of any pickup services
- She doesn't have time to garden or cook healthy meals
- She doesn't spend a lot of quality time with her family
- She doesn't have much storage space because a lot of the pantry and freezer is taken up by processed foods.

"I have no idea what's actually in most of the food my family is eating."

Fears

- The health of the food her family is eating
- The amount of food she is throwing out in the garbage
- Her effect on the environment
- Teaching her kids unhealthy habits

Wants

- More storage space for healthier foods that don't go bad quickly
- To be able to garden and be more active
- To be able to compost
- To be able to preserve her excess food

Uses often

- Instacart delivery
- Google
- The microwave
- Her mobile phone
- Amazon
- Freezer
- Plastics and the trash can

Prototype

[Link to prototype](#)

[Link to full file](#)

