

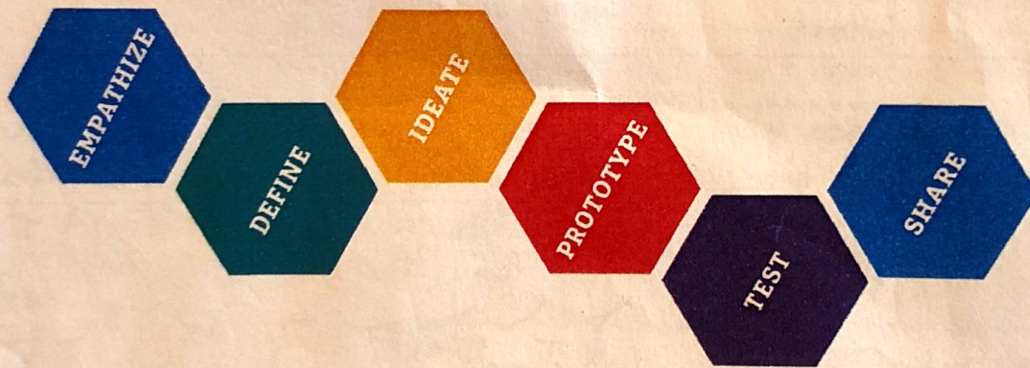


MERMAN



MERMAN by Black North

Design Thinking with EXTRAORDINAIRES



FIVE STEPS TO INNOVATION
Design thinking outlines a process of five steps to arrive at an innovative solution to a problem:

 EMPATHY	 DEFINE	 IDEATE	 PROTOTYPE	 TEST
1. EMPATHY: Gather information through interviews, observation, or first-hand experience. Keep an open mind and just listen.	2. DEFINE: Narrow it down and describe the specific problem you are trying to solve.	3. IDEATE: Working within a time limit, hold a blue-sky brainstorming session. No idea is too improbable to write down.	4. PROTOTYPE: Using whatever materials are at hand, quickly throw together models of your top ideas.	5. TEST: Take your prototypes to the end users and listen to their honest feedback, then repeat steps 4 and 5.

Group Members: Mia Mia Alethia

Extraordinaire (front, bottom right): Merman

Empathize

SEE

What do you see? Describe the Extraordinaire's physical appearance, environment, what he/she is doing, what others are doing, etc.

<p>Merman water food animals plants Pipes fish bones</p>	<p>Butterflies Parrots Bugs clock fish Bridge rocks Bubbles</p>	<p>wheel castle stick moss clams desings (on merpeoples) Peppers (green and red) white line</p>	<p>fins light (colored)</p>	<p>Sand Seaweed hair color</p>
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THINK

Based on what you see, what conclusions might you draw? What do you think is going on in his/her life? What challenges might the Extraordinaire face?

<p>I think that there playing a sport like football etc.</p>	<p>I think hes collecting food for a restaurant</p>	<p>I think there eating</p>
<p>I think theres lava poring out</p>	<p>I think there using fish bones as forks</p>	
<p>I think the symbols on there body represent something</p>		

WONDER

What do you now wonder about the Extraordinaire? What do you think keeps him/her awake at night? What do you think he/she most enjoys doing? What hopes & dreams do you think the Extraordinaire has?

<p>I wonder why there bars and cages</p>	<p>What is he worried about</p>	<p>I wonder why he has spikes</p>	<p>What is he exactly doing</p>
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Define

(Object Card)

What type of object does your Extraordinaire need created?

a Cooking utensil

Ideate

(Research Cards)

Thinking about the type of object your Extraordinaire needs, complete a list of 5 possible ideas. Next to each idea, write how the idea could help the Extraordinaire.

Object Idea	How could this object help him/her?
☆ At least one ^{cooking} utensil	so if they wouldn't help them eat
close range Plate	So this will be a service for them
refrigerator Stove	keep things warm or cold
Seaweed cup	a cup that you can eat
never dirty ^{napkin}	a napkin that never gets dirty or wet

to cook and eat on

Now, get a Research Card. Write the question(s) below:

what does this object do for the extrordinaire that they could not do before.

Our thoughts about and answers to this question:

it will help cut things eat
cook things and dig things up to eat.

Next, get a second Research Card. Write the question(s) below:

What is different about your world than your world?

about your world than your world

Our thoughts about and answers to this question:

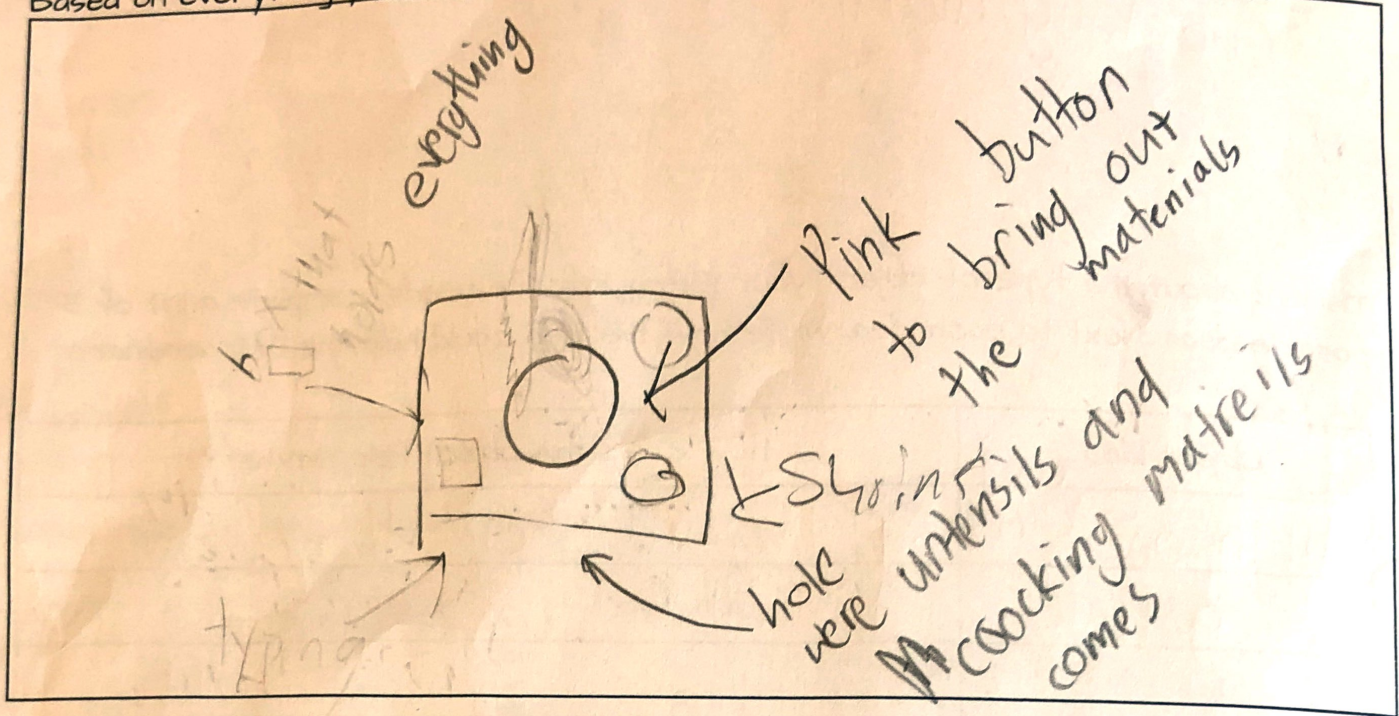
Their under water
were on land

Sticks instead of forks

Prototype

(Design Cards)

Based on everything you've answered on pages 1 & 2, sketch and label prototype 1:



Now, get a Design Card. Write the question(s) below:

- ① How will your design be stored when not in use? Does it need to change size, shape or color when not in use?

Discuss the question(s) on your Design Card. How might your prototype design change because of your answers to these questions?

It will shrink when not in use.

Yes it does need to shrink.

Next, get a second Design Card. Write the question(s) below:

- ① Will your design do lots or will your design do one thing really well.
- ② What would the extraordinary

Discuss the question(s) on your Design Card. How might your prototype design change because of your answers to these questions

Our design will do one of things really well.

The extraordinary would prefer 1 thing

Test (Improve Card)

Directions: Complete the checklist below with another group:

- ✓ Explain the Extraordinaire. What did you see, think, and wonder? (Empathize)
- ✓ What object were you asked to create for him/her? (Define)
- ✓ Explain the prototype you created to the other group. (Ideate/Prototype)
- ✓ Ask the group for 2 specific compliments and 1 specific suggestion. (Test)

• Compliment 1 (write it below):

I like how you noticed

• Compliment 2 (write it below):

I like how you noticed

• A Suggestion (write it below):

Add a microphone to

Next, look at your Improve Card. Write the question(s) below:

What other job can

you make your design do for the Extraordinaire

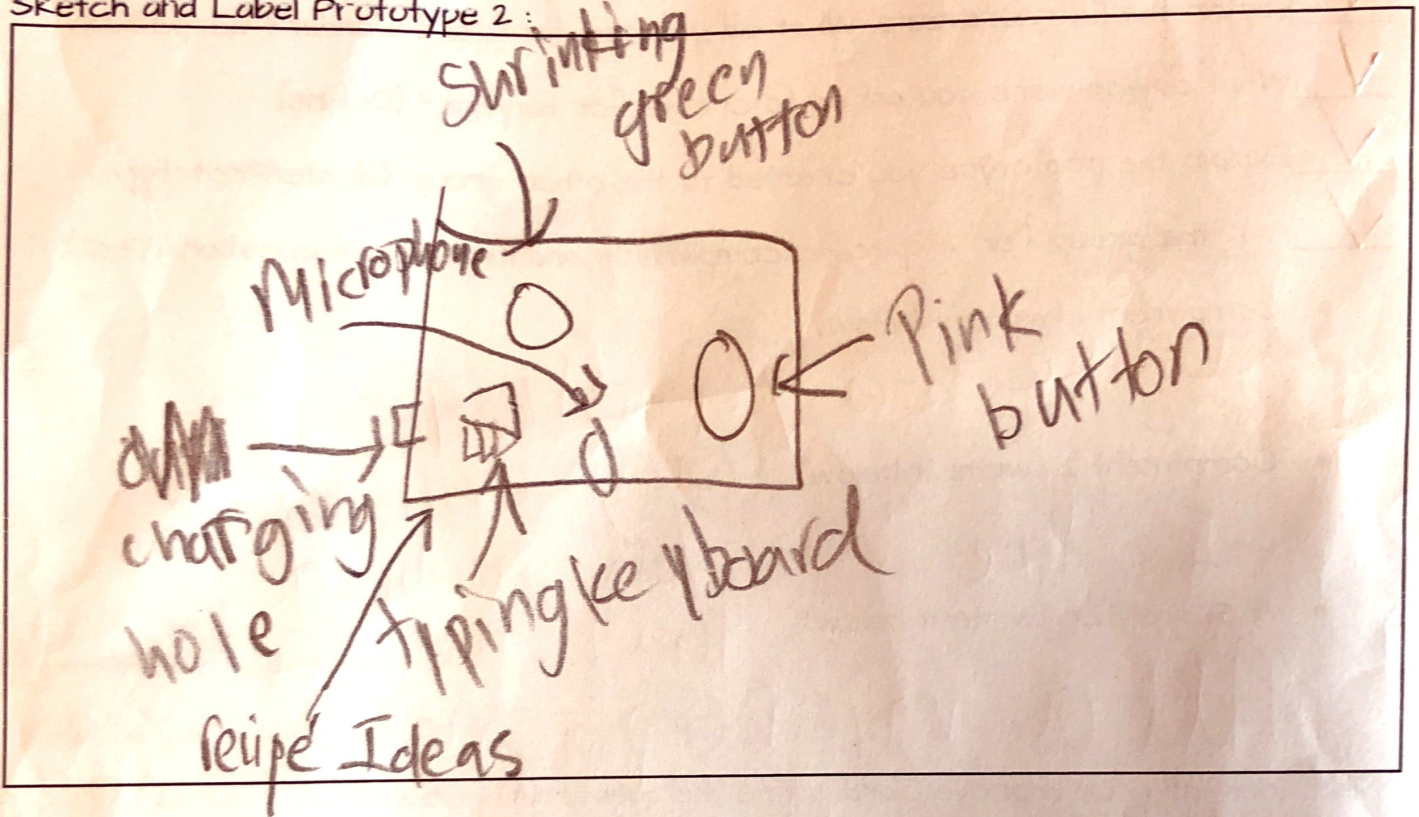
Discuss the question(s) on your Improve Card. How might your prototype design change because of your answers to these questions AND the feedback you received from another group?

Have a button to shrink the
Box and have a chain so
they can hang it from
things.

Prototype - Iteration 2

Using the feedback you received from another group and your answers to the Improve Card, modify (change and improve) your original prototype.

Sketch and Label Prototype 2 :



Share

What is the name of your final product?

All in one cooking utensil

Time to practice! Prepare a presentation to share each stage in this workbook.

Reflect

How did your final prototype change from prototype 1?

typing board

reipe ideas keyboard / microphone

charging hole

What about this design makes you the proudest?

typing board.