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# The Design Thinking Process for Innovation

A TOOLKIT FOR LEADING CREATIVE CONVERSATIONS ABOUT PARK AND PROGRAM RELEVANCE

Center for Park Management  
National Parks Conservation Association  
June 2013





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# Welcome to the Toolkit

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The Center for Park Management, in partnership with the global design and innovation firm IDEO, has designed this toolkit to support the National Park Service and its partners—to better connect all Americans to the Park System. As the National Park Service enters its second century, there is no better time to try new ideas, experiment with untested models, and build a learning community that is dedicated to sharing creative and innovative approaches. We invite you to be part of this movement. Take advantage of this resource to begin your own innovation design journey at your park or program.

## HOW SHOULD THIS TOOLKIT BE USED?

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- Watch the 15-minute preview of IDEO's design thinking process.
- Use this process guide and the activity worksheets to design your own workshops, and to brainstorm new ideas for making your park or program more relevant.
- Email [cpm@npca.org](mailto:cpm@npca.org) to get more information and support.
- Go to the Urban Matters Site, and share your experience and results on the blog: [sites.google.com/site/urbannps/](https://sites.google.com/site/urbannps/)
- Spread the word about this resource!



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# The Design Thinking Process

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This design process can help you approach problem solving in new ways. Actively seek insights and inspiration. Question your assumptions. Rethink the paradigms. Try new ideas, test them in your park or program, learn, and share your successes and failures with your colleagues in the parks community. Your innovation journey starts here...

Follow these steps in the design process.

## PREPARATION

### 1. ASSEMBLE THE TEAM

### 2. DEFINE THE DESIGN CHALLENGE

## INSPIRATION

### 3. DESIGN RESEARCH

### 4. TELL STORIES

### 5. IDENTIFY THEMES

### 6. FRAME THE QUESTION

## PREPARATION

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Before diving into the innovation process, it's important to lay the groundwork for meaningful and focused explorations.

## INSPIRATION

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Inspiration is about understanding people and their needs, and looking at what works and where change is needed in your park or program. It's a chance to fill our minds with possibilities.

## IDEATION

## IMPLEMENTATION

### 7. BRAINSTORM

### 8. PROTOTYPE

### 9. INTRODUCE EXPERIMENTS

### 10. SPREAD

## IDEATION

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Ideation is a phase of divergent thoughts, wild ideas, and exploration of solutions. We move from brainstorming hundreds of solutions to prototyping the best few.

## IMPLEMENTATION

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Implementation is the time to focus on getting feedback, revising, and developing ideas; then we lay the groundwork for spread.

# PREPARATION

## 1. ASSEMBLE THE TEAM

The most powerful way to approach design is with a collaborative team. A great team will bring diverse perspectives and skills to your park or program, and have the right mindset to learn from and build from each other's contributions.



## THE DESIGN MINDSET

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What does it take to be an innovator? While some specific design skills and park or program expertise are helpful, the most important thing is adopting a design mindset. Characteristics of this mindset include:

Optimism

Collaboration

Curiosity

A big-picture view

Empathy

A just-do-it attitude

Creativity

A hands-on approach





## THE TEAM

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As you're thinking about building a team, start with people who have (or can adopt) the design mindset. In addition, think about these elements:

### **INTERDISCIPLINARY MIX**

Assemble people with a mix of skillsets—such as visual expression, strategic thinking, ability to build things, communication.

### **COMMUNITY EMPATHY**

Make sure your team includes people with direct experience and empathy for the community of visitors at your park or program.

### **CORE & EXTENDED TEAMS**

The core team should be 2-8 people who are ready to get their hands dirty, taking part in all major team activities. You may also want to assemble an extended team to contribute specific skills or participate as needed in brainstorming and larger team meetings.

### **KEY STAKEHOLDERS**

While this process is not hierarchical, it's useful to include key decision-makers in the loop on the extended team.

# PREPARATION

## 2. DEFINE THE DESIGN CHALLENGE

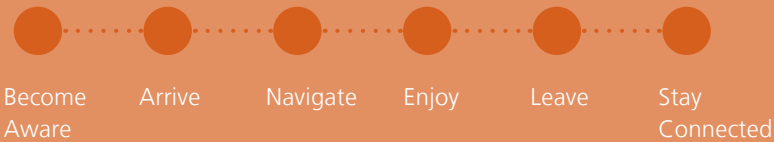
Before we dive into the design process, choose a design challenge to focus on—either a current project or something you’re hoping to tackle in the future. Think about a challenge that is human-centered—that is, it focuses on people and their needs and experiences at your park or program.



## THE PARK JOURNEY

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One way of revealing interesting design challenges is to consider a person’s ‘journey’ as they experience a new place, product, or service. For a park, a visitor journey might look something like this:



Where do you see the biggest pain points or opportunities for improvement?



## EXAMPLE DESIGN CHALLENGES

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- How can we raise awareness of parks or programs and what they offer?
- How can we increase the sense of stewardship for visitors at the park?
- How can we use the Park System as a platform for education and civic awareness?
- How can we better connect with the communities that surround a park?
- How can we create a compelling digital experience that integrates with the physical experience?
- How can we build new partnerships with agencies or organizations that do not share our same mission?

# INSPIRATION

## 3A. DESIGN RESEARCH

Design starts with research—to gain empathy and understanding, to inspire new ideas, and to test our intuition.



## RESEARCH METHODS

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Here are a few great research methods for you to try.

### IMMERSE

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Put yourself in somebody else's shoes to experience a key moment firsthand. Look for opportunities to improve the experience.

*ex: To understand the challenges of access to the parks, travel from an urban center to a park via public transportation.*

### OBSERVE & INQUIRE

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Conduct observations and in-context interviews with a variety of end users. Speak to 'extreme users' who provide unique perspectives and are often able to articulate common needs more clearly because they feel them more strongly.

*ex: Interview a park visitor at the park, a neighbor in their home, or a local business. For an extreme perspective, interview your most active volunteer at their duty station, or somebody who has never been to the park.*

## LOOK IN

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Understand the perspectives of key stakeholders within the organization.

*ex: Interview a policy-maker, administrator, or a visitor contact specialist connected to the park.*

## FIND ANALOGOUS INSPIRATION

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Look at how similar challenges are addressed in analogous situations—outside the world of parks and green spaces.

*ex: To think about wayfinding, go to an amusement park or museum and note what they're doing well.*



For prompts to plan your research, see the worksheet  
**ACTIVITY A: RESEARCH PLANNING**

# INSPIRATION

## 3B.OBSERVE & INQUIRE

What people say they do and what they actually do are often different. We learn by talking to people, and by observing them in their natural context—to understand the full picture of the person.

### INTERVIEW TIPS

#### **BREAK AWAY FROM THE NORM**

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The most important part of observation & inquiry is to surprise yourself. Seek people with perspectives you haven't heard before, and meet up in their homes and workspaces rather than your turf.

#### **START WITH RAPPORT**

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First, it's important to get to know the person you're talking with. Age, job, family situation. What do they do for work? For fun? You might spend a quarter of the interview getting to know them before shifting to more targeted questions related to your design challenge. This will help you build rapport, understand their needs, and put everything else in context.

#### **GO FOR STORIES!**

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When people tell stories, they reveal new things about themselves. A great way to learn unexpected things is to say, 'Tell me a story about a time when...'

#### **ASK OPEN-ENDED QUESTIONS**

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Instead of asking yes/no or survey questions (for example, 'do you like this park?' or 'how many times have you visited?') ask, 'how do you feel about this park?' or 'how would you describe it to your friends?' This is a good way to hear opinions you didn't know to ask about.

#### **SKETCH TIME**

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Ask people to draw their experience. Hand people a blank piece of paper, with instructions to 'draw your day' or 'draw your relationship with this park.' Let people interpret as they see fit, and get ready for some surprising answers.

#### **SHOW ME**

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Ask people to show you things physically: places, tools, artifacts and mementos. Use this to prompt new directions in the conversation.

## INTERVIEW DYNAMICS

The key to a successful interview is to get people feeling comfortable, natural, and conversational. It's important that they don't feel like they're being interrogated, or feel outnumbered by their interviewers.

One way to establish good dynamics, and to get the most from every team member in the room, is to establish interview roles.

Roles include:

- **Lead interviewer:** Introduces the team and asks majority of the questions
- **Scribe:** Captures quotes, stories, and interesting details from the conversation
- **Media Maven:** Captures photos, videos, audio (after getting permission)

## INTERVIEW PLANNING

|                                       |             |
|---------------------------------------|-------------|
| How many interviews?                  | 3 - 12      |
| How long should each interview be?    | 0:45 - 1:30 |
| How many people from the design team? | 2 - 3       |



Take these interview tips into account with the worksheet,  
**ACTIVITY B: INTERVIEW GUIDE**

# INSPIRATION

## 4. TELL STORIES

Storytelling is a powerful and efficient way to discover what's important. We reflect back on what we saw and heard, and what we interpret that to mean.



## WHY TELL STORIES?

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Certain pieces stand out from others, and we may not even know why at the time we first tell them. Through storytelling, our unconscious mind reveals important issues and opportunities.

Stories are useful because they are specific, not general. They provide us with concrete details that help us imagine solutions to specific problems.

Storytelling allows us to:

- Articulate what stands out
- Learn from each other—everyone hears something different from a conversation
- Recognize our own biases



## STORYTELLING TIPS

### DO

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- Be specific and descriptive
- Capture quotes & stories
- Use your physical senses
- Separate your raw observations from your interpretations

### DON'T

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- Generalize
- Judge
- Prescribe (they should, would, could...)

## EXAMPLE

Julia lives in a low-income neighborhood in San Francisco. From her interview, a few quotes stuck out for the emotional and practical needs they revealed.

“Parks are my therapy. I go to escape, to get away from the drama... the amigos and pill sellers on each block.”

“The magic word is free.”

“I don’t want to feel judged. I don’t want people staring at me. Around here there may be problems, but I fit in.”

“I’ve never heard about these programs. I had no idea you had a free shuttle. If you want to reach people here, come to the church, the soup kitchen, the senior center.”

# INSPIRATION / IDEATION

## 5. IDENTIFY THEMES

Synthesis is a process of moving from concrete observations and stories to more abstract themes that span across groups of people. Identifying important themes from our research is foundational work that points to opportunities for design.

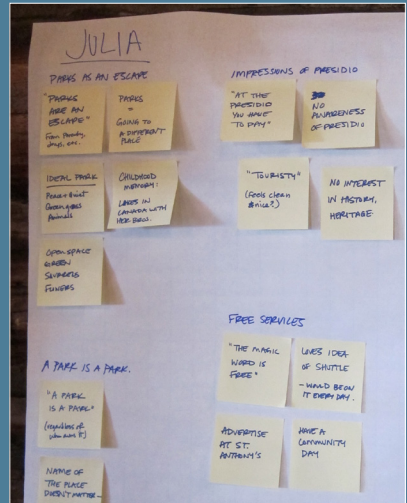


## WHAT DO THEMES LOOK LIKE?

Synthesis is a messy process, and can be quite unsettling because you don't know where you'll end up or how long it will take you to get there.

The first step of synthesis is grouping your research outputs into themes and patterns—clusters of observations, quotes, and stories that reveal a common insight or opportunity.

For example, a theme across many interviews may be 'lack of awareness of program offerings', or how 'people use the parks as an escape from the daily challenges of life.'



## THEME TIPS

### **PUT YOUR NOTES ASIDE**

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As a team, walk away from your notes and reflect. What are the top 3 takeaways? What surprised you most? How would you summarize what you learned from the interviews? Have each team member jot down their takeaways, then share. This works particularly well at the end of a day of research, over a drink or a walk in the park.

### **CLUSTER POST-ITS**

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We recommend using a lot of post-it notes during synthesis. If you've written one observation, quote, or story per post-it note, then you can easily cluster into themes. Take a look at each cluster, and write a statement that captures its essence.

## INSPIRATION / IDEATION

### 6. FRAME THE QUESTION

The goal of ideation is to generate as many ideas as possible. The first step is framing questions that build from the research themes, and provide focus and inspiration for new ideas.



### HOW MIGHT WE...

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First, we look back through our research themes. Each theme may prompt several brainstorm questions.

A good brainstorm question can be answered in many ways, is human-centered, is not too broad, and is not too specific. We start brainstorm questions with the words 'How might we' (or HMW) to give a sense of optimism and possibility.

Building from the themes above, 'HMW increase awareness of the park's offerings in urban areas?' 'HMW make parks a better place to escape to?'

You'll want at least 5 HMW questions for brainstorming—but challenge yourself to generate dozens and pick the best few from there.

### HMW TIPS

#### BE HUMAN-CENTERED

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The HMW should focus on a human need or experience.

*Bad example: 'HMW use more technology in the parks?' This is pushing solutions rather than responding to needs.*

*How to fix this: Think about what human need you're trying to address in this question. This might lead you to, 'HMW allow people to connect the parks to their digital lifestyles?'*

## NOT TOO BROAD

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If a HMW is too broad, it's hard for people to know where to start.

*Bad example: 'HMW save the world?' It's an interesting philosophical question, but feels overwhelming.*

*How to fix this: Ask yourself what is the problem you're trying to solve in this question. Draw upon the research themes.*

## NOT TOO SPECIFIC

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If it's too specific, then there's less opportunity for new or innovative ideas.

*Bad example: 'HMW plant more trees?' The answer is embedded in the question.*

*How to fix this: Ask yourself why you're suggesting this answer. The broader question might be 'HMW increase our green space?' or 'HMW get the community involved in maintaining the parks?' Either of those questions opens up new possibilities.*

# IDEATION

## 7. BRAINSTORM

Now it's idea time! This is a time for divergent thinking—be wild, put constraints aside, and generate as many ideas as possible. The time for analytical thinking will come, but not quite yet.



### THE RULES OF BRAINSTORMING

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To many people, brainstorming is synonymous with an undisciplined conversation. We've found that conducting a really good brainstorm involves lots of discipline and takes a fair amount of preparation. Here are our rules for effective brainstorming:

|                                     |   |
|-------------------------------------|---|
| <b>DEFER JUDGMENT</b>               | There are no bad ideas at this point!                         |
| <b>ENCOURAGE WILD IDEAS</b>         | It's the wild ideas that often provide breakthrough insights! |
| <b>BUILD ON THE IDEAS OF OTHERS</b> | Think 'and' rather than 'but.'                                |
| <b>STAY FOCUSED ON TOPIC</b>        | You get better quality output if everyone is disciplined.     |
| <b>ONE CONVERSATION AT A TIME</b>   | That way all ideas can be heard and built upon.               |
| <b>BE VISUAL</b>                    | Try to engage the left and right sides of the brain.          |
| <b>GO FOR QUANTITY</b>              | Set an outrageous goal and surpass it!                        |

# BRAINSTORM PLANNING

|                  |  |
|------------------|--|
| How much time?   | 45-60 minutes per session<br>15-30 minutes per brainstorm question   |
| How many ideas?  | Shoot for 100+ ideas in a session  |
| How many people? | 6-10   |
| Who?             | Beyond your core design team, invite people with fresh perspectives. Maybe even the people you're designing for! |



# IDEATION

## 8. PROTOTYPE

After selecting top ideas, we prototype. Prototyping is a great way to communicate a concept with minimal investment, and get feedback. Prototypes allow you to quickly identify what may need to be refined.

### WHAT IS A PROTOTYPE?

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Prototypes are the first rough representations of ideas. They provide people with something concrete to react to.

Prototypes can represent products, spaces, services, experiences, tools, roles, processes, communications, and more.

During prototyping, we 'build to think'—using the process to develop an idea more deeply.

The key to prototyping is to be quick and dirty—exploring a range of ideas lightly without becoming too invested in only one. From there, we start to imagine the stories and scenarios around ideas.

Solicit feedback from customers or end users: What did you like? What questions do you have? What suggestions for improvement? Refine your prototype based on this feedback.



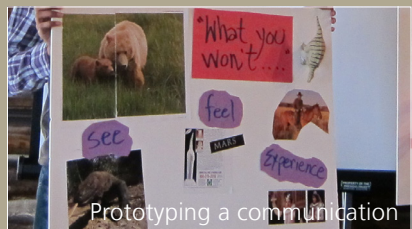
'Build to think'



Prototyping an experience



Prototyping a space



Prototyping a communication



## HOW CAN WE RAPIDLY PROTOTYPE DIFFERENT IDEAS?

|                       |  |
|-----------------------|--|
| Product               | Build a rough object, using whatever materials you have on hand—cardboard, clay, wood, foam, pipe cleaners, etc.   |
| Space                 | Build a new space or a model of a space, with quick lightweight materials. Add design touchpoints (such as signage, furniture, interactions) to an existing space. |
| Service or experience | Act out key moments or interactions in a skit or video. Draw them in a storyboard or a comic strip.  |
| Role                  | Write a job description. Put together a uniform. Hold a 15-minute training. Role-play a behavior, or ask somebody to act out the role for an hour or a day.        |
| Tool or process       | Draw a map of the steps, and act out how each step would happen. Create a communication of the process. Mock up a tool on paper. Write prompts and directions.     |
| Communication         | Create a mock ad or campaign—print, radio, video, etc.   |



Move from idea to prototype plan with the worksheet,  
**ACTIVITY C: PROTOTYPE DEVELOPMENT**

# IMPLEMENTATION

## 9. INTRODUCE EXPERIMENTS

Introducing a new idea as an experiment allows you to test its viability and let others see what's possible.



### WHY EXPERIMENT?

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Experimentation is a form of getting feedback.

People generally like to 'try before they buy.' By introducing your new idea as an experiment, you give people the chance to co-develop the idea and get interested in it. Your idea will nearly always be improved upon by the people who are part of the experiment.

Change is often unwelcome, so find a 'friendly' way to test your idea. Enlist people who are already trying to fix things in your park or program to participate in your experiment. Once they've shown that your idea does lead to improvement, then test the idea with more skeptical people. Come up with some simple measures that show others how the idea is working.

## EXPERIMENT TIPS

### **ADDRESS THE RISKS**

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Based on what you learned in prototyping, identify the biggest risks of your idea. Use experiments to address these risks head-on, and work through the challenges.

### **START SMALL**

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Scale your experiment down and keep it simple—start with an hour, a single customer, a single shift.

### **TRY MULTIPLES**

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Introduce multiple variations on your idea simultaneously so people understand that some ideas will fail.

### **STICK WITH IT**

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Don't let people kill your idea on the first try—if they say your idea didn't work, ask them why and get suggestions for how to improve the next round. Then get them to try it with their suggestions incorporated.



Think through goals, challenges, and partners for experiments with  
**ACTIVITY D: EXPERIMENT PLANNING**

# IMPLEMENTATION

## 10. SPREAD

Organizations frequently talk about ‘rolling out’ a new idea after figuring out a way to get ‘buy-in’ from employees. We believe that things spread best when people want something and actively seek it out.



### SPREAD TIPS

#### **EXTEND THE TEAM**

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Empower a few passionate people to act as local ‘idea ambassadors.’

#### **LEVERAGE STORIES**

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Send out a few memorable stories about the impact of your idea on a customer or employee.

#### **PROVIDE TOOLS**

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Create ‘kits’ that help ambassadors easily communicate and replicate the new ideas.

#### **MEASURE**

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Along with the new idea, give people tools to measure its impact.



## NEXT STEPS

### **STARTING MONDAY MORNING**

Sometimes, the hardest thing about innovation is getting started. Here are some ways to introduce a few of the key innovation methods into your daily work before launching into the entire process.

## TRY THIS.

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Bring the design process into every aspect of your work!

## **TELL STORIES**

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Start every meeting with a story about a good or bad service experience. Ask 'how might we take the lessons from this story to help us improve what we do?'

## **ENCOURAGE COLLABORATION**

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Bring a cross-functional team together to solve a problem that spans functions and levels of the organization. Serve them great food.

## **PROTOTYPE**

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Bring paper, markers, tape, and scissors to your next meeting, and design a rough solution before the meeting ends. Appoint someone to get feedback outside of the meeting.

## **INVESTIGATE ANALOGOUS SETTINGS**

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Take field trips to local places such as hardware stores, train stations, hotels. Encourage discussion about what ideas you might borrow from another industry.

## **EXPERIENCE A ROLE FIRST-HAND**

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Observe or walk in the shoes of a colleague or customer. Make sure others on your team have time for this.

## **INTRODUCE & ENCOURAGE EXPERIMENTS**

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Make excursions into the marketplace with your prototypes. Have your customers help you refine the concepts.



Icons from The Noun Project.