Who says all the fun has to happen at The Tech Interactive? This DIY design activity can be done with inexpensive supplies and things you find around your home!

Introduction

Think about the last time you visited a playground. Did you see other people there? What were they doing? Just like any place you go, playgrounds are created with a purpose—they are meant to be community spaces that are open to all kinds of people to visit and enjoy. Playground designers and engineers think carefully about what would be safe and exciting for everyone. For this activity you will become a playground designer! Your job is to create a play space that is fun, both for you and other kids. Sketch out your plans for the latest and greatest playground, designed for you and a fictional friend. Once you're happy with your design, present it to the world and introduce everyone to the playground of the future.

Design Challenge

Design and draw a playground for yourself and a fictional person, then pitch your design to family and friends!

Subject:
Design Thinking

Age:
8+

Time:
30 minutes

Key Concepts:
Inclusion, iteration, problem-solving, empathy, brainstorming

Materials

- Paper
- Something to write with
- Persona Cards, My Playground Design sheet
- (*Optional*) Colors (markers, pencils, crayons, etc.)

Use the drawing materials you have on hand. We encourage you to get creative — you can color code your playground with crayons or use stickers or construction paper to decorate your sketch. Be as simple or as detailed with your design as you like.

Instructions

Define the Problem

Any playground you design won't be for just you — other people will want to play there as well. How can you be sure that the playground you design works and is fun for different kinds of people? In this activity, you'll think like a designer and look at user **personas** to help shape what you make.

Personas are fictional characters that help designers empathize with people who use their products. They are based on research and interviews with real people, so designers can decide what is most important to include in their product.
They often include:
- Information about who the person is.
- What they want and/or need.
- Details about their lives.

Get to know the Personas
1. Choose one or two other playground users from the Persona Cards attached to this guide.
2. Take a look at their needs, likes and dislikes.
3. Think about your own needs, likes and dislikes as well.
   - You can fill out the blank persona card or take notes on the My Playground Design sheet.
4. Imagine you were going to go to a playground with your new 'friend'. What would you do together or separately?
   - Do you like any of the same activities?
   - How are the things you need similar?
   - What activities do you like that your new 'friend' doesn't?

Design for All
How would you create a playground where you can all have fun?
As you design your playground, you will want to include things that meet everyone's needs.
This means finding a good balance between what you all like to make a playground that works for everyone.

For example: If the persona's favorite color is blue and your favorite game is tag, how would you incorporate those into your playground?

Imagine Your Playground

Playgrounds come in all shapes and sizes. Your favorite playground might have a special theme or features. Try thinking about the playgrounds that you have been to and their similarities and differences. It's time to figure out the things that YOUR ideal playground would need.

While coming up with ideas for your playground, think about:

Activities	Location	Materials	Other
What do you and the persona like to do at the playground?	Where would your playground be? What is the weather/setting like?	What is your playground made of? Plastic or metal? Will it last many years?	What else would you and your persona need?
Ex: We like soccer or tag. Add a big grass area.	*Ex: The weather is hot.* Add trees, a water fountain and covered slide.	*Ex: We want a natural look and feel.* Add climbing ropes instead of metal or plastic.	*Ex: We like pirates!* Add a boat theme.

Feeling stuck? Check out these inclusive play spaces for ideas!

- Magical Bridge Playgrounds: Magical Bridge Playgrounds in the San Francisco Bay Area are multi-sensory and open to everyone. They include distinct play areas like the Swing and Sway Zone, Hideaway Huts, and Community Treehouse and Stage, which ensure that anyone can have a fun and enriching experience.

- Morgan's Wonderland and Inspiration Island: Morgan's Wonderland is the first fully inclusive theme park in the United States, accessible to people of all abilities. It is service dog friendly, provides Braille signage, and is completely wheelchair accessible.

Brainstorm Ideas

1. There are different ways to brainstorm your playground ideas.
   - You can try filling out the My Playground Design brainstorm sheet at the end of this guide.
   - Or sketch out your favorite pieces of playground equipment.
2. What ideas will work best for you and the persona? Take these ideas and get ready to use them to sketch out your playground design!

✋ Sketch Out Your Playground

Now that you have some ideas about what features you want your playground to have, it's time to start designing. Creating a **concept sketch** of your playground will help you think about how all the features of your playground should be laid out.

> **Concept sketches** are labeled drawings used as a quick and simple way to initially explore a design, like a first draft. Architects, engineers and other kinds of designers all use concept sketches to think over and explain their initial designs.

Draw a Concept Sketch

1. Grab some scratch paper and something to draw with, then start sketching out what you imagine your playground might look like.
   - Don't worry about what it looks like, or how well you draw. These rough drawings are just another way for you to figure things out!
2. While making your sketch, try to show how your playground will be built. Consider things like:
   - How close together is all of your playground equipment?
   - Where does the path or sidewalk to get to the playground go?
   - If the floor of your playground is tanbark, sand, or rubber chips, how much space does it take up and what shape does it make?
3. Next, pick the combination of ideas or features that you would like to use for your final concept sketch. Choose your favorite parts of the design and incorporate any new inspirations!
   - Making this sketch is a way to explore how all the details of your playground fit together. Don't be afraid to make lots of sketches and compare them to see what works best before deciding on a final concept sketch.

💬 Share and Iterate

Playground designers have to pitch their designs before they can be built. It's time for you to show your playground plans to family or friends and get feedback on what you have created. A pitch can be as simple as a conversation or as polished as a commercial. Tell your family and friends about your playground and why you designed it the way you did.

> A **design pitch** is a presentation where you tell people about an idea or design, how it works, and what makes it special. A pitch is a great way to show someone why an idea is good or important and convince them to like or believe in what you made.

After you pitch your playground, ask them what they think:
- Would they be excited to play there?
- What kinds of activities would they want to do there?
- What else would they want you to include? Is there anything they would need/want?
- What changes would they suggest?

Now that you have gotten some feedback, use that information to improve on your playground plans and create your final design. See if you can make your playground fun for even more users!
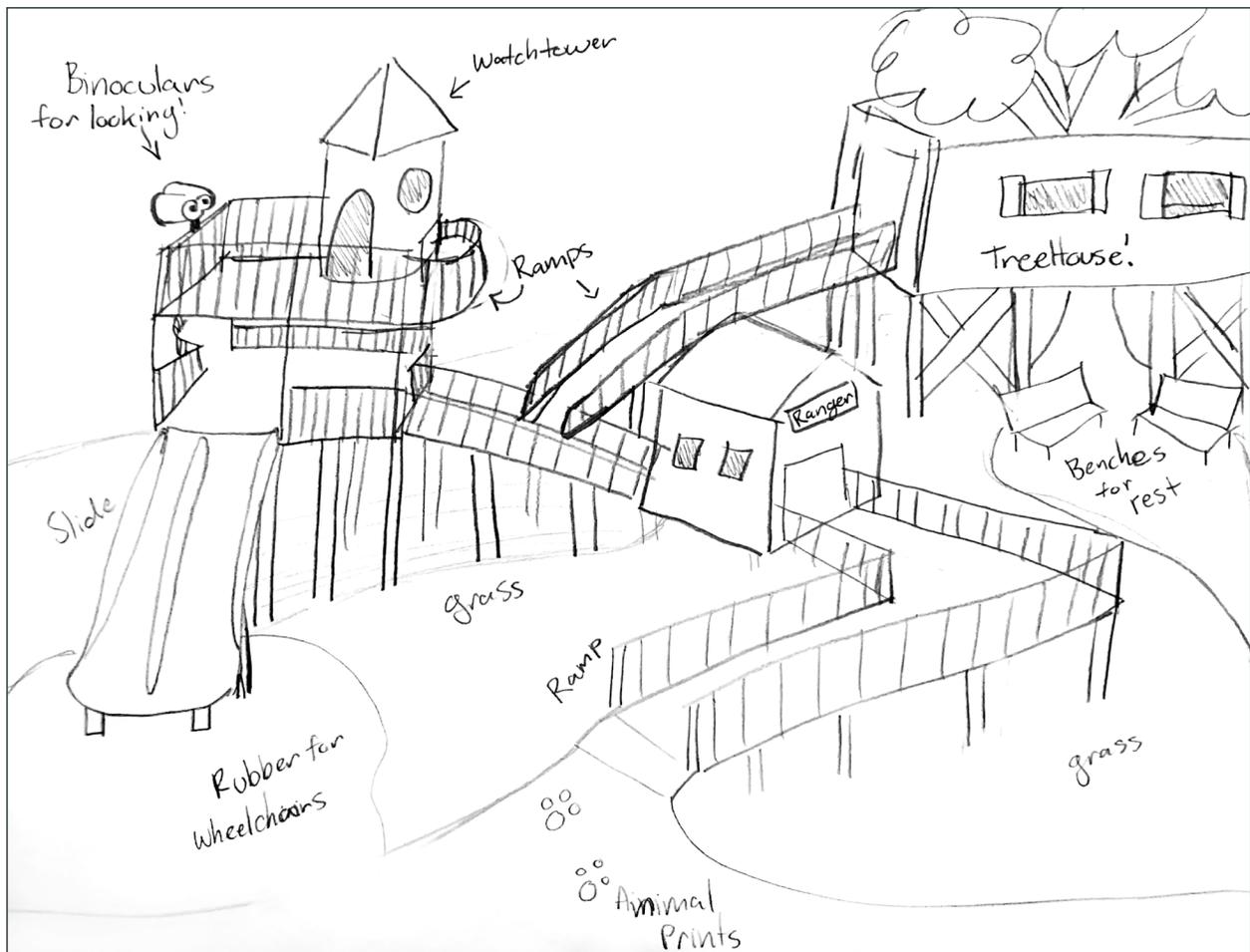
Explore More

- **Build your playground:** Try taking your design one step further and create a model of your playground. Build your playground out of things like Lego bricks, wooden craft sticks or cardboard and use a toy to test how it feels to play in the space you designed. Get creative with it!

- **Explore in virtual reality:** Use a tool like Panoform to create a virtual reality experience from your sketches on your computer or smartphone.

- **Spread the word:** Social media can be a great place to pitch the playground that you made to other people. Get your parents to help you share — check out The Tech Interactive's activity posting on Zigazoo to share with others who have done this activity!

Advertise Your Playground
Take your idea even further and come up with a creative way to present your design. Make a poster, do a skit, or record a commercial to tell everyone to come and visit your playground. Think of a fun way to tell the world what makes your playground amazing!

Sample Concept Sketch

The Tech Interactive at Home

thetech.org/athome

Persona Cards

Dai — Age 11

Today, I came to the playground with my dad and my 8-year-old brother.

> When I'm at the playground, I need a quiet place to rest.

> I like to run around and spin really fast.

> I don't like crowds and noisy places.

Dai likes Minecraft and the color red.

👍
- SWINGS
- RUNNING
- CROWDS
- NOISE
👎

Sofia — Age 7

Today, I came to the playground with my mom and my grandmother.

> When I'm at the playground, I need the ground to be flat so I can use my wheelchair.
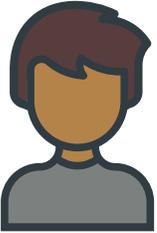
> I like to play on the jungle gym and watch the birds.

> I don't like when I have to sit and rest but it's too far from everything to keep playing.

Sofia likes music and playing make believe.

👍
- FRIENDS
- JUNGLE GYM
- MONKEY BARS
- CLIMBING
👎

Fernando — Age 8

Today, I came to the playground with my mom, dad, and two brothers.

> When I'm at the playground, I need snacks when I get tired and a place to wash my hands after.

> I like to draw the things I see in the park and swing super high on the swings.

> I don't like getting dirty or wet.

Fernando likes making up new games.

👍
- DRAWING
- SWINGS
- BUGS
- DIRT
👎

Phuong — Age 12

Today, I came to the playground with my dad and my step-mom.

> When I'm at the playground, I need shade and water when I take breaks from playing.

> I like to look for bugs and climb up high.

> I don't like missing out on playing when I have to stay in the shade to protect my sensitive skin from the sun.

Phuong likes gymnastics and monkey bars.

👍
- CLIMBING
- BUGS
- FRIENDS
- SUN
👎

Persona Cards

Maalik — Age 9

Today, I came to the playground with my dads and 2-year-old sister.

> When I'm at the playground, I need a place to play with my baby sister safely.

> I like to go down the slide really fast and play with building blocks with my sister.

> I don't like getting sand in my shoes and when grass makes you itchy.

Maalik likes hide & seek and building things.

👍
- SLIDE
- HIDE & SEEK
- SISTER
- SAND
👎

Niha — Age 9

Today, I came to the playground with my mom and my dog.

> When I'm at the playground, I need to be able to bring my dog, Rover, with me.

> I like to dig in the dirt with my dog, but I don't like playing with kids I haven't met before and crowds make me unhappy.

Niha likes playing in the woods by her house.

👍
- DOG
- RUNNING
- PLAY FETCH
- CROWDS
👎

Jessie — Age 10

Today, I came to the playground with my grandma and grandpa.

> When I'm at the playground, I need to be able to practice with my soccer ball.

> I like reading and playing sports with my friends but I don't like climbing up high on the jungle gym.

Jessie likes swimming and basketball.

👍
- SOCCER
- READING
- JUNGLE GYM
- CLIMBING
👎

— Age

👍
👎

My Playground Design

Use words, sketches, or a combination of both to list out the needs, likes and dislikes that you and the persona have while visiting a playground.

Think about things like...

Activities	Location	Materials	Other
Ex. games, sports, picnic, swings	Ex. weather, park size, animals	Ex. metal slide, plants, rubber floor	Ex. themes, color schemes, etc.

I am designing for

(Your Name) — *(Persona Name)*

Needs

Likes

Dislikes

What should your playground have to be fun and personalized to both of you?
You'll be using this information to start sketching your playground so use this space to record all your ideas!