

SUPPORTING

→ *Learning*

THROUGH

→ *Play*

AT



CHICAGO
CHILDREN'S
MUSEUM

TABLE OF CONTENTS

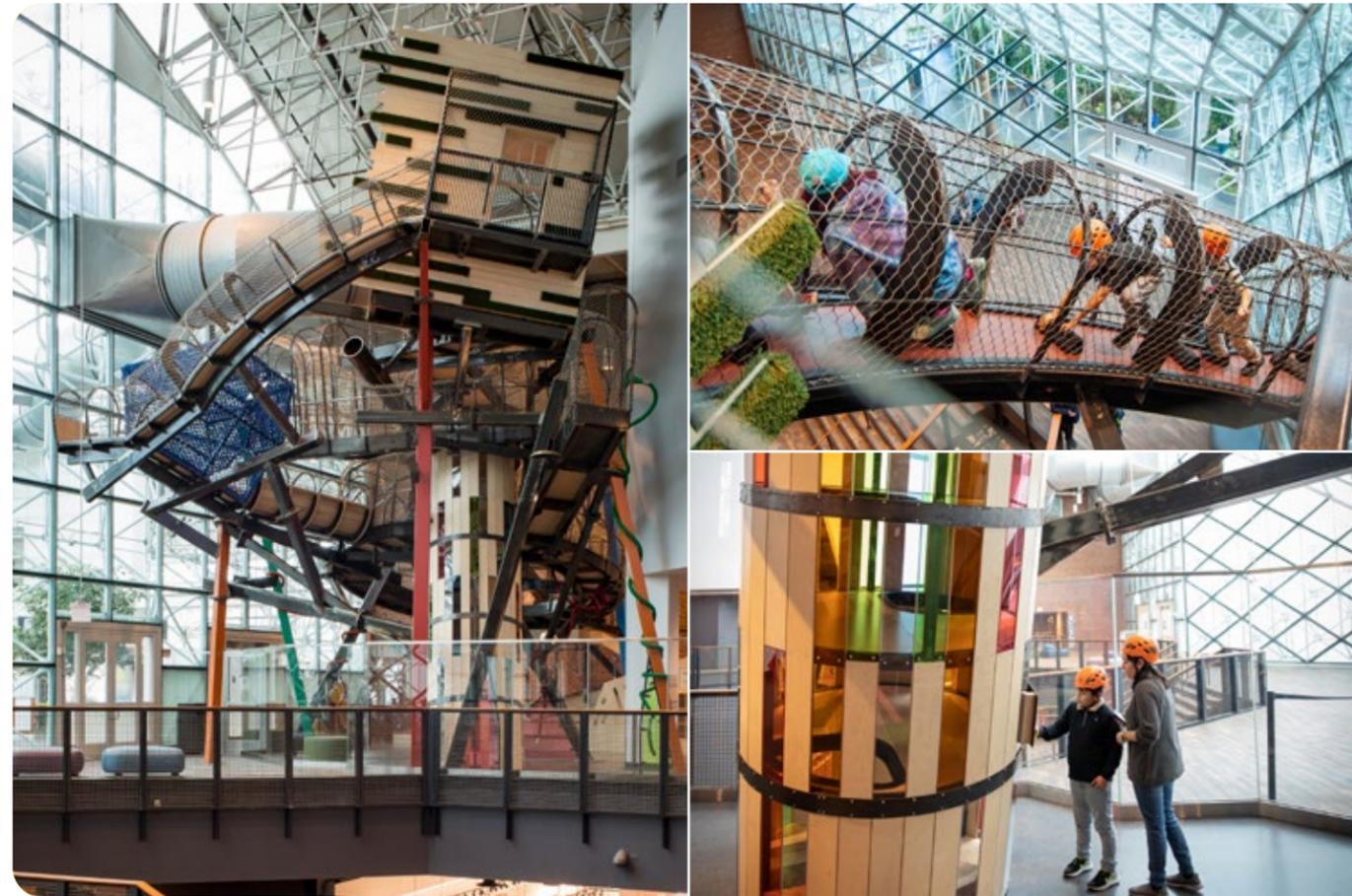
Cloud Buster	4
Kovler Family Climbing Schooner	6
Treehouse Trails	8
Play It Safe	10
Kids Town	12
Suchomimus	14
Pritzker Playspace	16
Dinosaur Expedition	18
Thingamabob	20
Art Studio	22
Michael's Museum	24
Water City	26
Skyline	28
Tinkering Lab	30
Story Hub	32

Supporting Learning Through Play at Chicago Children's Museum

Welcome to Chicago Children's Museum (CCM)! The museum's mission is to improve children's lives by creating a community where play and learning connect. We hope you enjoy experiencing the museum and seeing firsthand the learning that occurs through play. All of CCM's experiences have been intentionally designed to give children opportunities to grow in the realms of cognitive, physical, social-emotional and language development.

The following guide will help you, as an important adult in a child's life, understand the opportunities for growth and development in each experience and how to support children's learning through play.

Cloud Buster



About This Experience

Designed by artist, Kevin Winters, *Cloud Buster* is 37 climbable feet of structural steel, wood, wire, rope, acrylic, fiberglass, and artificial turf perched over Navy Pier's Fifth Third Family Pavilion. Visitors can explore multiple levels, climb through unexpected spaces, and ascend to The Apartment, *Cloud Buster's* highest destination. There is no one-way to explore *Cloud Buster*. Each pathway offers a new adventure!

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Practice reversibility (the idea that actions or thoughts can go in a different direction than usual) as they move in all directions through the structure; solve problems (*How can I get over there? How can I navigate this terrain?*); and sequentially plan each step of their climb.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Build self-confidence as they reach new heights, test their physical abilities, and sense their accomplishments.
 - **Pro-Social Development:** Bond with others through the shared climbing experience and develop empathy for other climbers.
 - **Independence:** Exercise decision-making and following through, while also boosting logic, memory, and concentration as they decide how to climb the structure and navigate from place to place.
- **Physical Development:** Use upper body strength to ascend, and balance to descend. Practice a wide range of vertical and horizontal climbing methods.
- **Language and Literacy:** Engage in play narratives with their peers, develop and tell stories inspired by the climbing adventure and setting, and gain new vocabulary such as directional terms (*i.e. up, down, across, left, right, over, under*).

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN CLOUD BUSTER

- Follow the child's lead: Do they want to climb with you or explore independently? Let them make the decisions about which paths to take.
- If the child is apprehensive at first, invite them to explore just the lower levels of the climber at first. They can visually assess challenges and decide how far to go.
- Note that *Cloud Buster* is especially suited for older children who might be looking for a challenging (and thrilling!) physical experience. Suggest this experience if you have a child looking for an adventure.

Kovler Family Climbing Schooner



About This Experience

Through this nautical-themed climbing experience, visitors can scale three stories of ship's rigging—from cargo hold to crow's nest. Staff stationed at each level can lend a hand to new climbers.

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Improve core cognitive functions like memory and concentration. (*Where should I put my foot next? How should I use my hands? What positioning worked last time?*)
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Experience a feeling of accomplishment and self-confidence as they reach new heights and traverse physically challenging spaces.
 - **Pro-Social Development:** Use social and cooperative skills as they navigate the space with other climbers.
 - **Independence:** Separate momentarily from their caregivers to climb. Practice goal-setting: *I am aiming to reach the top of the schooner*; determination: *This is hard but I will get there!*; and planning: *If I place my foot here while pulling up with my hands and arms, I'll be able to move up to the next section.*
- **Physical Development:** Build awareness of their body's position and movement in the space; strengthen balance and agility as they navigate varying inclines, levels, and distances between platforms.
- **Language and Literacy:** Use spoken words to be clear when giving instructions to, or communicating with, other climbers or staff helpers.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN THE CLIMBING SCHOONER

- Encourage and guide the child as you watch them climb. Be specific with your feedback: *Wow, you are really using your strength to pull yourself up!*
- Offer verbal cues as well as physical cues. *You can put your foot here and grab the rope here with your hands.* [Point to the areas].
- You can follow the child as they climb while remaining outside the structure yourself by taking the staircase that runs adjacent to the climbing structure. Maintain conversation with them while they climb.
- Show empathy and understanding if children feel scared or realize they are not ready to climb all the way to the top. Let them know that they can always try again on your next visit.

Treehouse Trails



About This Experience

In this outdoor-inspired exhibit, visitors can camp, climb, burrow, and pretend. They can canoe and fish in a river, splash in a mountain waterfall, climb through a rock tunnel, and cook and serve a meal in the log cabin. Babies can stretch, explore, and relax in the special infant crawler area.

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Hone their imagination as they play out different roles; solve problems that arise as they play out narratives inspired by the setting; learn to self-regulate as they interact in the space and with others; and make decisions about what to do next.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Explore different identities and abilities as they take on various roles. Develop a sense of judgement about their own abilities and boundaries as they interact in the space.
 - **Pro-Social Development:** Interact with others to share materials in the log cabin, collaborate in the ball run area, and negotiate space at the fishing creek.
 - **Independence:** Gain a sense of freedom and confidence as they explore the space and assess risks.
- **Physical Development:** Build gross motor skills as they climb, crawl, slide. Develop eye-hand coordination by manipulating the loose parts in the exhibit.
- **Language and Literacy:** Engage in conversation with others as they play our scenes, share ideas, navigate the space, and negotiate actions. Use vocabulary words in context.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN TREEHOUSE TRAILS

- Follow the child's lead if they are drawn to a particular area or activity. Take cues from them on how they want you to join in on the play: Eat a meal they're serving in the log cabin? Fish together in the creek?
- Identify words that are specific to the play setting. Use the vocabulary while taking the role of co-player or play leader. *Let's go over the bridge and catch some fish in the blue river!*
- Talk about whether the setting reminds them of any places they've been or things they've done. *Have you ever gone for a walk in the woods? Seen a real fish swimming? Worn a life jacket? Ridden in a boat?*

Play It Safe



About This Experience

Developed in partnership with the Chicago Fire Department, *Play It Safe* invites children to learn fire safety skills as they try on authentic firefighter gear, slide down the fire station pole, drive the truck, put out the “fire,” and safely escape a “smoke”-filled room.

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Make sense of information, either by comparing it to what they already know or changing their thinking to match the new information, as they explore the operations of a firehouse, and what to do if they encounter smoke or fire.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Learn how to manage emotions and self-regulate as they play out the narrative of an emergency situation. Try on adult roles such as firefighter/first responder.
 - **Pro-Social Development:** Practice skills of how to interact, collaborate, and problem solve with others as they work together to manage an “emergency.”
 - **Independence:** Learn self-control and decision-making as they choose which role to play in the firehouse, or how to escape the smoke-filled room.
- **Physical Development:** Build spatial reasoning skills as they figure out how to slide down the fire pole, climb in and out of the firetruck, and “get low and go” out of the smoke-filled room.
- **Language and Literacy:** Practice vocabulary words in context as they play out a narrative, communicate with others, and use words to describe their ideas, intentions, and actions.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN PLAY IT SAFE

- If you have a shy child, join them in their role playing. Take more of a lead role.
- Talk about the smoke-filled room together. Model the safe way to exit the smoke-filled room (get down on your hands and knees, keep your head up, and crawl outside).
- Assist the child in sliding down the fire pole.
- Note that some children will want to stay at the firetruck for a long time! Support their desire to stay. Remember that this means they are still learning and gaining something from the experience.

Kids Town



About This Experience

In this cityscape built just for children, visitors can shop in the grocery store, change a tire, deliver the mail, wash the car, and drive a CTA bus. This city neighborhood promotes role-playing, problem-solving, emerging literacy, and creative exploration.

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Develop short- and long-term goals as they decide where and how to play within the environment. Build capacity to use abstract thought as they imagine, create, and represent ideas by using the props and environment. Make connections between prior experiences and their present play.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Take on roles normally played by adults (bus driver, mail carrier, cashier, mechanic, cook, etc.) and practice the actions and “scripts” of those roles.
 - **Pro-Social Development:** Learn to see from the perspectives of others as they follow the “rules of the role.” Negotiate and collaborate with others as they play out scenes and narratives.
 - **Independence:** Make decisions about what and how they want to play; take the lead in certain scenarios or while playing a certain role.
- **Physical Development:** Build gross motor skills as they stretch to wash the car, push a grocery cart, navigate the terrain of the exhibit, climb in and out of the driver’s seat. Hone fine motor skills as they collect small objects in the grocery store, handle mail and currency, and use buttons on the cash register.
- **Language and Literacy:** Engage in conversation with others as they role play, share ideas, navigate the space, and negotiate actions. Use vocabulary words in context.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN KIDS TOWN

- Take cues from the child on how they want you to join their play: Ride in the bus as they drive? Purchase groceries as they work the cash register? In each scenario, help carry the scene forward and expand conversation. *What’s the next stop, bus driver? What’s on sale at the store today, grocer?*
- Use specific vocabulary while taking the role of co-player or play leader. *Let’s wash the car! Let’s use the soft brush to scrub the hood of this blue car.*
- Note that some items in the grocery store are non-descript (small wooden blocks and blank containers). Ask the child what the item could be, allowing them to stretch their imagination and tap into their own knowledge of familiar or favorite food items that may not otherwise be represented in the store.

Suchomimus



About This Experience

Visitors can greet a life-size skeleton of the dinosaur, Suchomimus, as soon as they enter the museum. Signage helps visitors learn about where Suchomimus lived, what they ate, and how they lived. A replica jaw bone fossil allows visitors to touch a part of the dinosaur's skeleton.

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Improve attention and enhance complex thinking skills as they observe a specimen and tune into information about a scientific topic. Build ability to visualize and imagine how something was in the past.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Enhance their perseverance and persistence as they engage in learning about (or discovering) a topic of personal interest.
 - **Pro-Social Development:** Engage in positive interactions with caregivers and other children as they look at and talk about the dinosaur.
 - **Independence:** Develop critical thinking as they think about the dinosaur, ask questions, and develop their own curiosities.
- **Physical Development:** Build fine motor skills as they touch and feel the fossil jaw bone; build gross motor skills by pretending to move and act like a dinosaur.
- **Language and Literacy:** Use known and new vocabulary to talk about the dinosaur; learn and use descriptive words to describe what they see.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING WITH SUCHOMIMUS

- Note that Suchomimus is the same dinosaur featured in the museum's *Dinosaur Expedition* exhibit on Floor 3. Invite children to continue learning about Suchomimus by visiting the exhibit and digging for bones.
- Explore the touchable jaw bone together. Ask children to compare Suchomimus's teeth to their own. *What can the shape of Suchomimus's teeth tell us about the kind of food he might have eaten?* Describe the fossil by talking about its shape, size, color, and texture.
- Talk about things you can't see right now, like what the dinosaur might have done when it was alive. *How do you think it moved? What did it sound like?*

Pritzker Playspace



About This Experience

The *Pritzker Playspace* is an intentionally-designed environment that supports multi-sensory exploration and play for infants, toddlers and preschoolers. Materials and elements of the environment change regularly to offer new and evolving experiences. It is a great place to meet other families, get inspired, and play!

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Use all senses to explore objects and phenomenon and make sense of the world around them.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Build their self-awareness and self-confidence as they encounter new challenges and new materials, and gain confidence in their abilities.
 - **Pro-Social Development:** Develop social competencies as they interact with others, and begin to share, negotiate, and self-regulate.
 - **Independence:** Explore on their own (distancing themselves from caregiver) as they feel comfortable. Express their emotions and begin to show or receive empathy as they interact with others.
- **Physical Development:** Build strength and balance by toddling, riding, pulling, pushing, lifting, rocking and climbing. Coordinate movements, gain awareness of their bodies, and build spatial awareness as they navigate the space.
- **Language and Literacy:** Build receptive language as they hear others speak and have the opportunity to use expressive language as they communicate with themselves (private speech) and with others.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN THE PRITZKER PLAYSPLACE

- Engage with the child by showing them the materials and modeling different ways to use them.
- Follow the child's lead if they show interest in a particular activity and play with them. Otherwise, initiate an activity. *Let's scoop these beans. Let's stack these blocks. Let's play with the objects on the light table.*
- Narrate the child's experience. *I see that you just put the ball in the basket!*
- Ask open-ended questions. *What do you think will happen if...? What do you want to do next?*

Dinosaur Expedition



About This Experience

This exhibit is a re-creation of the real Saharan expedition site where Chicago paleontologist, Paul Sereno, discovered a new type of dinosaur. Visitors can see a life-size skeleton of *Suchomimus* (*sue-co-MY-muss*), dig for bones in the excavation pit, compare skulls with a T-Rex, and learn what it would be like to be part of the expedition team.

Opportunities for Growth and Development

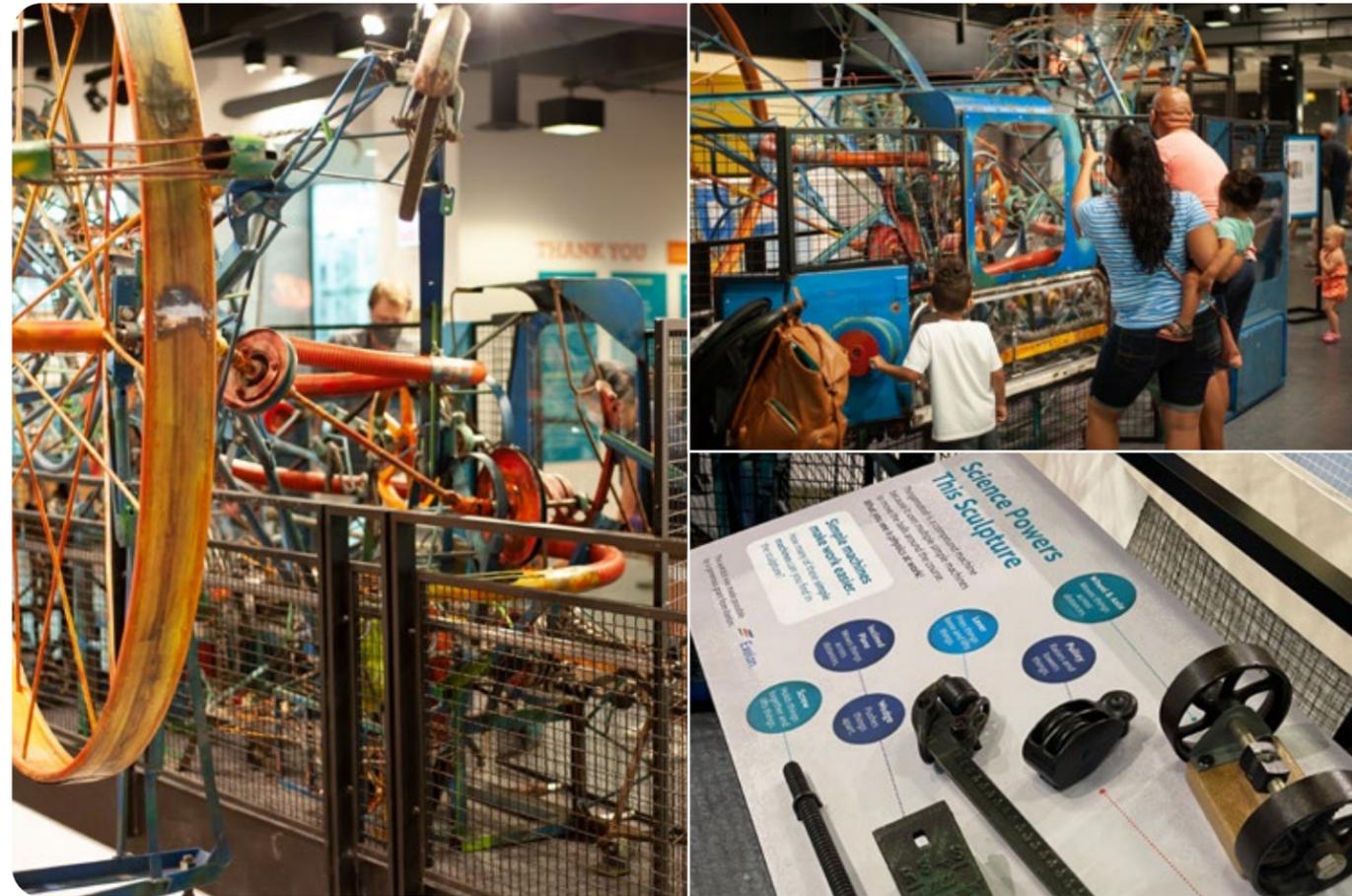
Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Use the scientific method (observing, describing and comparing) to make connections between dinosaur evidence and dinosaur knowledge.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Enhance perseverance and persistence and they seek to gain more knowledge about a topic of personal interest.
 - **Pro-Social Development:** Engage in positive interactions with other children as they work together in the excavation site and drive the truck.
 - **Independence:** Develop critical thinking, ask questions, and look for answers on their own as they excavate the bones and determine which part of the dinosaur they have found.
- **Physical Development:** Engage in effective and efficient use of large muscles to navigate the dig site terrain and dig for bones. Use fine motor skills to manipulate the dig tools such as brushes.
- **Language and Literacy:** Talk with others to communicate actions and ideas and ask questions. Utilize new vocabulary in context such as for parts of the skeleton, environment, materials, tools, and types of fossils.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN DINOSAUR EXPEDITION

- Talk with the child to imagine what a trip to the Sahara to dig for dinosaur bones might be like. *If you were going to look for dinosaur bones in the hot desert, what supplies would you bring?* Use the inventory list in the Jeep as a reference.
- Work together to unearth the skeleton in the dig site. Talk about the bones you are finding. *What part of the dinosaur do you think you have found? A rib bone? A claw?* Use the skeleton map as a reference.
- Touch and look at the T-Rex skull and the *Suchomimus* skull. Talk about what is similar and different.

Thingamabob



About This Experience

Artist Andrew Smith created this sculpture using repurposed machine parts and other materials to demonstrate how simple machines work. Visitors can activate *Thingamabob* by turning the crank and setting the machine in motion. The activation sends a number of billiard balls through the course. Watch as simple machines work together!

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Deepen understanding of physical science and mechanics. Observe how simple machines work.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Learn about the artist who created Thingamabob and think about themselves as artists and makers. *Do they make art? What materials would they like to work with? What could they imagine creating?*
 - **Pro-Social Development:** Talk with others about the parts of the machine they see; work together to find each of the 5 simple machines.
 - **Independence:** Experience the power of making the machine work by themselves. Turn the crank and see what their own strength can do!
- **Physical Development:** Use hands (fine motor skills) and strength (gross motor skills) to turn the crank and get the machine's gears turning.
- **Language and Literacy:** Talk with others about what they are observing. Learn and apply scientific vocabulary in context (e.g. the names of all the simple machines).

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN THINGAMABOB

- Visit the simple machine signage and look at the 5 simple machines. Try to find each of the machines at work in Thingamabob. *How are each of the machines making the work easier?*
- Talk together about the materials the artist used to make the sculpture. *What interesting parts do you see? What materials would you like to use to make a sculpture? What would your sculpture look like?*
- If the crank is hard for the child to turn by themselves, work together to turn it!

Art Studio



About This Experience

The *Art Studio* is designed to let children revel in the creative process. Internationally-renowned, Chicago-born artist, Hebru Brantley, partnered with Chicago Children's Museum to design the space. **Kirby's Clubhouse** is an immersive environment that offers children the opportunity to tell their own stories and display their own art. Visitors can add their own "story frame" to the growing, collaborative art work inspired by comic books, some of Hebru Brantley's early artistic influences. **Sky Studio** houses the museum's facilitated art programming, led by the museum's arts educators. Workshops offer opportunities for families to explore a diversity of art forms, processes, styles, approaches, and artists.

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Understand multi-part artistic processes, including how to use materials, tools, and techniques to create different art forms.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Use art-making to express ideas, interests and identities.
 - **Pro-Social Development:** Work with others during the process of art-making by sharing materials and tools. Experience the power of sharing their work with others by talking about it with friends and family or the museum educator, and/or by displaying it in the museum for others to see.
 - **Independence:** Turn their own ideas into an artistic expression; express their own voice and vision through use of artistic media.
- **Physical Development:** Use fine motor skills to manipulate tools and materials.
- **Language and Literacy:** Learn and apply new vocabulary in context, such as terms for artistic materials, techniques or tools. Talk with others about the process of creating and one's work.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN THE ART STUDIO

- Talk with the child about their ideas and creations. Use open-ended language such as, "Tell me about your creation." Don't make assumptions about what the child has created.
- When possible, use art-making as an in-road to talking with the child about prior experiences or interests related to what they are creating. Art is a great conversation-starter as it allows children to express themselves in ways that their language skills may not yet allow.
- If the child gets frustrated during the art-making process, note that sometimes things don't work the way you expect when making art. *How can we take the "surprise" and turn it into something interesting?*

Michael's Museum



About This Experience

This exhibit fosters the art of collecting and features nearly 100 collections of tiny objects, including miniatures, trinkets, artifacts, and curiosities donated by founder and curator Michael Horvich. Children can ask questions and tell stories as they seek-and-find objects in the collection, use magnify glasses to gain new perspectives, sort and organize tiny treasures, and act as “curators” of their own displays on open shelves.

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Deepen understanding of the qualities and characteristics of objects and materials (color, shape, size, content); sort materials into categories.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Think about one's own interests: *Are they a collector of anything? What would they like to collect?* Try on the role of curator and make decisions.
 - **Pro-Social Development:** Talk with others about the objects they see in the collection. *Do any objects look familiar? Do any of the objects remind them of an experience they had?*
 - **Independence:** Point out their own favorite items in the collection. Describe what they like about them. Curate their own object display by using the loose parts to populate empty display shelves.
- **Physical Development:** Use fine motor skills to manipulate the small loose parts, place them in slots or compartments; open and close drawers; crouch down low to see small objects in cases; reach up high to place objects on display shelf.
- **Language and Literacy:** Talk with others about what they see. Use language to describe the qualities and characteristics of the items; tell stories and share memories elicited by the objects.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN MICHAEL'S MUSEUM

- Use the seek-and-find card by the coffee table and look together for the prompted items.
- Invite the child to take some time to go around the exhibit (separately from you) and find three things that they want to show you. You do the same. Come back together and share your discoveries. *Why did you choose this item? What was interesting about it to you? Why did you think I would find it interesting?*
- This exhibit has objects from many decades! If an item is something you played with as a child, tell the child about it! Talking about memories is a rich form of conversation.

Water City



About This Experience

This exhibit gives children the opportunity to manipulate a child-scaled model of Chicago by directing the flow of water through the river system, exploring cause-and-effect as they use water to create effects on the buildings, and experiencing the sensory qualities of water.

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Deepen understanding of the qualities of water. Explore how water flows, how objects sink or float, how water can be directed, as well as the importance of water to our lives.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Explore their own capability and power to direct the flow of water and create effects. Develop their own narratives and stories using the scaled-model city and the props, and take on different roles.
 - **Pro-Social Development:** Work with others while using the components, props, and activities.
 - **Independence:** Choose which activities to try. Direct their own experience and interact with the water according to their own interests. Direct the water and create effects of their own.
- **Physical Development:** Use fine motor skills to manipulate the sprayers and props such as scoops and strainers. Use strength (gross motor skills) to move water. Experience the calming nature of water as a sensory material.
- **Language and Literacy:** Use language to talk about their actions, the props, materials, and elements of the city scene. Together with an adult, talk about the signage that gives info about the importance of water.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN WATER CITY

- Look around at the cityscape together. Ask children: *What part do you want to explore first?*
- Talk about the buildings and structures you see: *Do any of these structures look familiar to you?* Use the sign showing Chicago buildings as a reference.
- As you are playing in the water, think together about all the words you'd use to describe it. *Cool, smooth, shimmery, soft, clear...? What words describe how water makes you feel? Calm, excited, cool, thirsty...?*
- Ask "What if" questions: *What do you think will happen if we direct the water sprayer at those spinners on the building? What would happen if we open up the dam?* Then test it and see what happens!

Skyline



About This Experience

The *Skyline* exhibit invites visitors to design and build a child-sized skyscraper using struts, nuts and bolts and real tools. The *Skyscraper Challenge* component photographs visitors at work and invites them to tell the story and make a documentary about their building process.

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Deepen spatial and mathematical understanding through real life experiences with 3-D construction.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Share a sense of group and individual ownership and pride in their work as they build. Try on the roles of designer, engineer, builder.
 - **Pro-Social Development:** Collaborate with others to build large-scale structures that require cooperation and team work.
 - **Independence:** Monitor their own progress and set their own standards for success. Learn from and move past unsuccessful strategies in order to build something that stands up.
- **Physical Development:** Grasp, lift, move, and build with large size wooden struts. Develop eye-hand coordination as they line up bolts and nuts and use tools.
- **Language and Literacy:** Build language skills as they communicate during their building experience—dealing with the need for parts, tools, and hardware, talking about plans, sharing strategies, and reflecting on accomplishments. Use new vocabulary for tools and materials.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN SKYLINE

- Talk together about what you might build. Look around at other structures for inspiration.
- Use the labels in the exhibit to learn authentic terms for some of the construction tools and materials. Use the language: *Let's find struts in the length we need. We're going to need more nuts, bolts, and washers.*
- If the structure is wobbly, visit the "What Stops the Wobble?" component to learn an important tip. *What shape can you add to make your structure more stable?*
- Let the child lead the design and build process. Follow in on their vision.

Tinkering Lab



About This Experience

This facilitated workshop space invites visitors to use their building and problem-solving skills to address engineering challenges. In partnership with Loyola University Chicago and Northwestern University, museum educators and researchers are utilizing Tinkering Lab to study how children and families learn about engineering. Evolving programs in the space offer new experiences over time.

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Use critical thinking and problem-solving skills to solve engineering challenges. Test solutions and fix problems. Build executive function skills as they think through a process and determine what to do first, next and last.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Understand their capabilities and grow in confidence as they use tools and materials that may be new to them. See themselves as problem-solvers and scientific thinkers.
 - **Pro-Social Development:** Collaborate with others to build and solve problems. Share materials and tools. Share their creations with others.
 - **Independence:** Make their own decisions about what to create, how to solve a challenge, and what types of materials and tools to use.
- **Physical Development:** Build fine motor skills while working with a variety of hand tools.
- **Language and Literacy:** Build language skills as they describe their building process and tell stories related to their work. Gain new vocabulary related to engineering processes, tools, and materials.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN TINKERING LAB

- The facilitator in the space will provide a brief introduction to the challenge and activity of the day, as well as provide tips on how to begin.
- If children are still unsure of how to start, walk around the room with them and look at the available materials. Look at examples of what others have made or are working on. This can spark ideas!
- When it comes to constructing, follow the child's lead. What is their vision? How can you help? Try not to lead the building/making process *for* them.
- Engage the child in conversation while they are building. Is there a story that goes along with what they are making? Research shows that storytelling and reflection can deepen children's engineering learning.

Story Hub



About This Experience

In this multi-media station, visitors can tell the story of their museum visit. Children and their important adults produce a mini-movie about their experiences to share and revisit online after they leave the museum.

Opportunities for Growth and Development

Through this experience, children have the opportunity to grow skills in the following areas.

- **Cognitive Development:** Deepen their learning by recalling and reflecting on their experiences and making meaning of it.
- **Social-Emotional Development:**
 - **Self-Awareness and Identity Building:** Self-reflect on what they enjoyed and learned at the museum. Identify their favorite experiences and memories of the day.
 - **Pro-Social Development:** Engage in meaningful conversation with a caring adult about their experience. Think about others with whom they will want to share their movie.
 - **Independence:** Take the lead in speaking up and sharing their thoughts and reflections.
- **Physical Development:** Become aware of movements and body positioning during a video recording.
- **Language and Literacy:** Use verbal language to engage in conversation and to describe their thoughts and feelings.

HOW ADULTS CAN SUPPORT PLAYFUL LEARNING IN STORY HUB

- The *Story Hub* program (on-screen) facilitates adult-child interaction by giving prompts and helping adults to support the child's conversation and reflection. Follow the prompts on the screen together.
- After your museum visit, download and view the movie together and talk about it. *What were some of the most interesting moments from your movie? Were there any moments that made you smile or giggle upon watching it? Are there other memories from your museum visit that you want to talk about more?*
- Chat about whether there is anyone else with whom the child would want to share their recording. You can forward the e-mail link to them.



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MUSEUM

AT NAVY PIER

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