



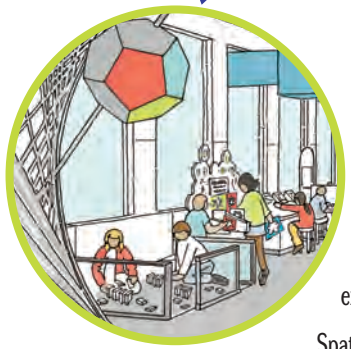
Come play, come learn!

Dragon's Tale

The Newsletter of Providence Children's Museum
Fall 2012 • Volume 15 Number 4



ThinkSpace An exploration of shapes and spaces



ThinkSpace, a major new exhibit exploring spatial thinking, opens in November! This dynamic environment will invite visitors to explore, imagine, create and experiment with shape and space through open-ended play experiences.

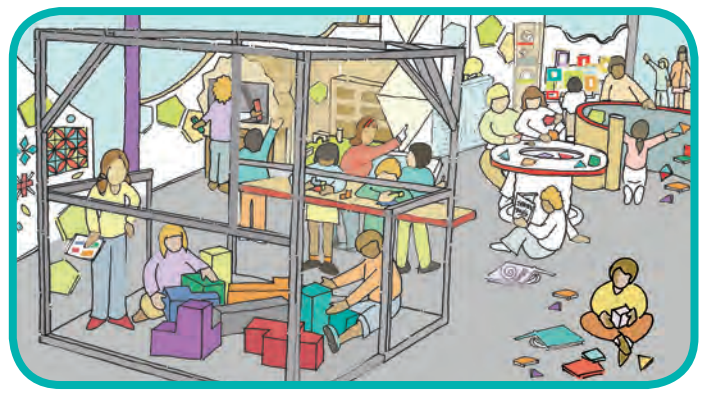
Spatial thinking is necessary for everyday life, to navigate, explore and survive in the world. People think spatially all the time – when tying shoes, reading maps, finding the way to school or work, packing a suitcase, doing jigsaw puzzles, designing costumes, climbing rocks or cutting peanut butter and jelly sandwiches in half – and become better with practice. Spatial thinkers are architects designing buildings, pilots flying airplanes, doctors reading x-rays, plumbers installing pipes, meteorologists predicting weather, bakers decorating cakes, geologists studying fossils and artists painting landscapes. Kids are spatial thinkers, too!

Spatial thinking is a powerful problem-solving tool and a key to kids' interest and success in STEM (science, technology, engineering and math) disciplines. Research suggests that early development of spatial thinking skills increases later achievement in math and science – and that, for young children, *hands-on* experiences are especially important. However, while kids learn the basics of shape and space, spatial thinking isn't systematically taught in schools.

ThinkSpace will get visitors thinking spatially with plenty of puzzles, challenges and opportunities for hands-on play and exploration:

- Navigate mystery maze boxes using the senses to guide a ball through hidden twists and turns, and map the path it traveled.
- Create intricate kaleidoscopic designs by layering, ordering and rotating colorful cutout shapes in countless combinations.
- Experiment with shadows and scale, transforming 3-D objects into 2-D representations and creating imaginative shadow scenes.
- Arrange and rotate 25 cubes – painted with an artful array of shapes – to replicate design challenges or piece together new patterns and pictures.
- Solve the soma cube, a giant 3-D puzzle, by fitting together seven pieces to form a cube. Find one or more of 240 separate solutions!

- Construct domino chain reactions, negotiating spacing and alignment to topple series of spirals and zigzags.
- Also try other puzzles and a selection of changing tabletop challenges, take a new look at favorite block and building activities, and more!



Spatial thinking develops over a lifetime and *ThinkSpace* has much to engage and challenge older kids and even adults. The exhibit also offers several components especially for the Museum's smallest visitors – including a bead maze, shape sorter and a latching and buckling activity – because even very young children are spatial thinkers. A nook stocked with books about shape, navigation, visual and spatial challenges and more will intrigue children and parents alike.

The exhibit's sophisticated design and color palette are complimented by dozens of beautiful images scattered throughout. Pictures of mazes, shell spirals and winding rivers give the activities context, connect them to real world experiences, and inspire and shape visitors' exploration.

Save These Dates!

Friday, November 9
ThinkSpace opening reception for Museum members and supporters

Saturday, November 10 - Monday, November 12
ThinkSpace opening weekend celebration

And join a series of spatial thinking programs on weekends in November and December. Explore the art of origami, puzzle through shape and patterning challenges, join a shape dance, and more!

Illustrations by Valerie Haggerty-Silva



Janice O'Donnell and other staff test *ThinkSpace* prototypes.

It is a *children's* museum. So yes, it's *for* children and also *about* children and the ways they learn. Our mission statement defines our audience as "children, ages 1 to 11, and the adults who care for them." We see the Children's Museum as a play and learning environment for kids *and* for grown-ups who are interested in kids. But do our adult visitors think it's a place for them?

Maybe not, according to a recent national study of adults' perceptions of children's museums. Reach Advisors, a strategy and research firm that works with museums, surveyed over 8,400 adults who visit children's museums frequently. The typical respondent was a 30-something, college-educated mother of a child or children under 6. Why does this mom go to children's museums so often? She does it *for the kids*. She knows the kids love it and it's good for them but she's not having much fun herself. Two-thirds of the respondents said the museum they visit often does not engage *them*, as adults, or meet *their* needs.

We don't know if frequent visitors to Providence Children's Museum would respond similarly. We hope not. From seating and sightlines to signage and staffing, we do think about adults' needs a lot. But this information has prompted us to look again at ways we can ensure visiting the Museum is fun for grown-ups, too – and influenced plans for our new *ThinkSpace* exhibit:

- It's often difficult for adults to join school-age kids in pretend play – and they don't really want us to. But puzzles and games and design challenges are perfect shared activities and *ThinkSpace* is filled with them.
- A parent visiting with children of different ages can be pulled in different directions. While designed for older kids, *ThinkSpace* has activities for very young children scattered throughout. Mom and her 8-year-old can create kaleidoscopic designs while the toddler is happily occupied with the nearby shape sorter.
- Many parents like to know how the activities that engage their kids are helping them learn. The parent labels in *ThinkSpace* explain how experimenting with shadows, creating patterns and solving puzzles develop spatial thinking skills.

We've tested *ThinkSpace* activities with Museum visitors so we're confident that kids will love the new exhibit and we're pretty sure grown-ups will, too. Let us know!

– Janice O'Donnell, Executive Director

Playing Across Providence

This summer, the Museum brought unstructured play to Providence public parks, taking Imagination Playground blocks and other open-ended fun to different neighborhoods throughout the city. The Museum programmed these public spaces with high-quality play experiences for 850 kids and family members, thanks to a pilot partnership with the Providence Department of Parks and Recreation.

Providence was recently named a "Playful City" by KaBOOM!, the national nonprofit dedicated to saving play. The recognition, which honors cities and towns that make play a priority, was due in part to the Museum's growing advocacy for free play over the past four years. To commemorate the designation, the Museum helped plan the first Playful Providence weekend – a citywide celebration of the power of play, held September 7 - 9.



The mission of Providence Children's Museum is to inspire and celebrate learning through active play and exploration.

Providence Children's Museum
100 South Street
Providence, RI 02903
www.ChildrenMuseum.org
(401) 273-KIDS (5437)

Fall/Winter Hours:

Open Tuesday - Sunday and Monday school holidays, 9:00 AM to 6:00 PM.

Admission:

\$9.00 per person 12 months and older.
Members are always free.

For more information:

General Information, Birthday Parties & Group Visits

Reception ext. 234
Info@ChildrenMuseum.org

Membership

Kelsey Nagel ext. 221
Membership@ChildrenMuseum.org

Volunteer Opportunities

Julie Burkhard ext. 144
Volunteer@ChildrenMuseum.org

Education

Cathy Saunders ext. 136

Development

Jennifer Laurelli ext. 120

Fundraising Events

Sara Clarke ext. 121

Communications & Media Relations

Megan Fischer ext. 126

To contact staff members by email, use last name @ChildrenMuseum.org. For a full staff phone directory, visit the Museum's website.

Stay Connected

Join the conversation with Providence Children's Museum and others who care about kids' play and learning:



PlayWatch community discussion listserv
www.PlayWatch.org



Sign up for the Museum's monthly e-newsletter (at www.ChildrenMuseum.org) to keep up with the latest news and events!

Editor:

Megan Fischer

Designer:

Valerie Haggerty-Silva



Playful, joyful, *powerful* stories about children and families, shared by Museum staff and volunteers

This story of spatial thinking exploration while testing ThinkSpace prototypes was shared by Museum director Janice O'Donnell.

The mystery maze prototypes were wooden boxes enclosing mazes of varying degrees of difficulty. The object: roll a ball through the maze and out the other side. By listening, feeling and observing, figure out and draw a picture of what the maze looks like inside.

An 11-year-old girl approached the mazes very methodically. She experimented a bit and then decided, "I'm going to draw as I do it." She tilted the box, ascertained that the ball rolled to the left, and made a horizontal line on her diagram. Tilted again, heard the ball roll down, and drew a vertical line. Tilted again and lost track, so she started at the beginning, checking her drawing and adding new lines as she discovered the ball's progress through the maze. When it popped out the other side, she rolled it through again, carefully confirming her diagram. She followed this method with several different mazes then said, "Now I'll teach my little sister how to do it!" – and she did.

Engaging kids for sustained periods of concentrated exploration – the mystery mazes are a keeper!



Exploration: Spatial Thinking

In *ThinkSpace*, discover a sculptural tower that houses a selection of fun hunts to do throughout the Museum. Search for silhouettes, interpret close-up images to decipher and find their whole objects, and follow a map to uncover these spatial challenges in other exhibits:

- Stand so that half of your body is reflected in the "flying mirror" in *Play Power*. Look in the mirror and move your arm and leg to fly!
- Build a maze in *Water Ways* and float balls and boats from one end to the other. Redesign the maze and see how it changes the flow of the water (and the objects).
- Dig for a mastodon fossil in *Underland*. Estimate the length of the whole creature.
- Wiggle way up to the top of *The Climber* and find a different path back down.
- Go below deck on the ship in *Coming to Rhode Island*. Pack the crates with all the essentials needed to sail from Providence to Cape Verde. Does everything fit?
- Study the map in *Iway* to explore the history of the interstate highways around Providence. Plan your own city on the map table.



Where Do the Children Play?



© Susan Sancomb

Providence Children's Museum is partnering to present two free public screenings of "Where Do the Children Play?" in October. This provocative documentary examines an issue of growing concern among pediatricians, mental health experts, educators and environmentalists: more and more children are growing up with limited time and opportunities for unstructured play, especially outdoors. An audience discussion will follow each screening, led by Museum director Janice O'Donnell and other panelists.

Wednesday, October 3
6:30 - 8:30 PM

Providence Athenaeum

251 Benefit Street • Providence, RI 02903

Space is limited. RSVP to Lindsay Shaw at lshaw@provath.org or (401) 421-6970 ext. 17.

Thursday, October 11
6:30 - 8:30 PM

Blackstone Valley Visitor Center

175 Main Street • Pawtucket, RI 02860

Space is limited. RSVP to Jane Blanchette at blanchettej@psdri.net or (401) 729-6293.

Join the conversation! Visit the Museum's blog to learn about previous "Where Do the Children Play?" screenings.

Other panelists include Linda Atamian, co-founder of The Mariposa Center; pediatrician Dr. Jane Dennison; and Julia Steiny, education columnist and director of the Youth Restoration Project.

Other panelists include John Blais, Pawtucket Parks and Recreation director; Dr. Elizabeth Lange, pediatrician and former RI American Academy of Pediatrics chapter president; and Cindy Larson, LISC senior program officer.

Talking Back

Meet Museum Director of Exhibits **Robin Meisner**, who guided the exhibits team in creating *ThinkSpace*.



The Museum's exhibit team: Exhibit Technician Hillel O'Leary, Exhibits Director Robin Meisner, Graphic Designer Valerie Haggerty-Silva, Exhibit Designer & Fabricator Chris Sancomb.

Describe your background and your role at the Museum.

I first came to the Museum in 1998 as an AmeriCorps member, then was hired as the science developer in charge of school-age science programs, exhibits and community outreach. Four years later, I went to London for a PhD in Education Research. I studied Providence Children's Museum, the Exploratorium in San Francisco and the Science Museum in London to see how exhibits encouraged children's play in different types of museums. After I graduated, I was director of programs at the MIT Museum and then came back here as director of exhibits.

How does the Museum choose exhibit topics?

With *ThinkSpace*, the exhibit team was very excited about shape. It's something the Museum has had an exhibit about almost since opening and is relevant for our audience. We wanted to take it beyond the basics of shapes and spaces to spatial thinking, which encompasses a much broader look at the world around us.

How do you create new exhibits?

Many people don't know that we create our exhibits ourselves. Once we know a topic, we think about our exhibit goals, target age and main messages – what we hope both children and parents will take away. Then we translate the concepts and goals into actual components by thinking about what kids are going to *do*. That is often a challenge but a really fun challenge. We decide what the exhibit is going to look and feel like – the range of activities and also details like its colors. After we finalize our components, budget and timeline, we begin building.

What's unique about the *ThinkSpace* process?

This is the first time we've systematically prototyped almost all of our exhibit components by building cheap, quick mock-ups. Our prototypers observed kids and asked what they liked, how much fun they had, if they had ideas about making the activities better. Often kids liked that it was challenging – that it was hard but they were able to figure it out. It gave us confidence about giving them something difficult.

Some favorite *Shape Space* activities have been kept for *ThinkSpace*. Why?

We're keeping several great spatial thinking tools, like unit blocks – basic wooden blocks that kids of all ages and grown-ups love to play with. There's a lot of research

that shows their value. They're completely open-ended. There's an element of pretend or dramatic play.

The two-dimensional Jovo® shapes snap together to make different polyhedra – triangles make a pyramid and squares make a cube. They're a fantastic manipulative that demonstrates the relationship between the 2-D and 3-D worlds. Magna-Tiles® allow little kids to do something very similar with an easier mechanism.

We're keeping the Shape Talk game because there's evidence that spatial language is incredibly important for spatial thinking. Shape Talk prompts you to think about and articulate spatial relations – where something goes in relation to something else. Spatial language is not just shape names but also about location, movement, size, orientation, curvature, construction and transformation.

What are you most looking forward to in *ThinkSpace*?

I'm interested to see how our visitors use the space. Among the components for the big kids will be, at a low level, activities designed purposefully for very young children. I'm curious to see whether little kids and big kids know which activities are meant for them.

I have my favorite activities. I'm very excited about the mazes because they're challenging and kids and adults loved testing them. I love dominoes and I'm eager to see how they'll help kids think about spatial relations. For dominoes, spacing makes a huge difference in whether the chain will work and also its speed. I'm excited to see what kids create and what sort of challenges they make for themselves.

Visit the Museum's blog to learn more about the process of planning, prototyping and fabricating *ThinkSpace*.

Gift Shop Picks: Spatial Thinking

There are scores of superb spatial thinking toys and games. These educator-recommended favorites, available in the Museum's Gift Shop this fall, make great gifts for holidays, birthdays or any special occasion.

As seen in *ThinkSpace*, nest, stack and link together vibrant **Wedgits** to build intriguing structures and sculptures. The blocks' open-ended design and rhombus and octahedron shapes stimulate perception and reasoning skills for all ages. Replicate designs from hint cards provided in assorted sets and invent creative new constructions. **\$34.99 - \$42.99**

A long-time Museum favorite for all ages, **Magna-Tiles®** are innovative magnetic building toys that promote imaginative play and creativity as well as patterning, shape recognition and other critical developmental skills. Available in 32, 48 and 100 piece sets. **\$49.50 - \$120.00**

When toddlers piece together the colorful grooved shapes of the **Creative Peg Puzzle**, they engage in early exploration of spatial relationships and practice problem-solving and fine motor skills. **\$20.00**

Discover an assortment of smaller items as well as playful puzzles and activity kits. Fold and create paper in interesting ways with origami and paper airplane kits and learn to create a kaleidoscope. Or opt for Museum Dollars in increments of \$1 to \$5 or a gift certificate in any amount.



How Many?



How Much?

Look for an intriguing new display that challenges visitors' eyes and teases their brains! Count and estimate the quantities of colorful objects and natural materials stacked and packed in the Museum's atrium walkway window boxes.



Join the Thrive Drive

Be part of *ThinkSpace* and help kids increase their spatial thinking skills by becoming a team captain in the Thrive Drive! This online effort will raise funds for the Museum's newest exhibit *and* raise awareness about the importance of hands-on play for children's healthy development.

Simply set a fundraising goal, create a Thrive Drive webpage and invite family and friends to contribute small gifts. Fun incentives encourage captains to reach their goals – the top five fundraisers over \$500 win a Providence Children's Museum membership! And following an October 1 kick-off party, Thrive Drive captains, supporters and their families celebrate at the November 9 *ThinkSpace* opening reception.

It's not too late to join the fun! Contact Sara Clarke at Clarke@ChildrenMuseum.org or (401) 273-5437 ext. 121 to become a Thrive Drive captain, or visit www.ChildrenMuseum.org/ThriveDrive.asp.

Golf Tournament Nets \$32,500

The 29th Annual Allen H. Chatterton Jr. Memorial Golf Tournament, held at Portsmouth's renowned Carnegie Abbey Club in August, drew over 100 golfers and netted \$32,500 to benefit the Museum's hands-on exhibits and innovative educational programs. The Museum gratefully acknowledges Allen H. Chatterton III, who chaired the tournament for the 23rd consecutive year in memory of his father, and major event sponsors Admirals Bank, Neighborhood Health Plan of Rhode Island and Nortek Inc. Thanks to all of the other generous sponsors, in-kind donors, volunteers and participants who made the tournament a success!

Visit the Museum's website for a full list of event sponsors, tournament winners and committee members.



Denis Riel, Kevin Saber, Larry Blau and Axel Stepan from LW Blau Restoration

Need a Gift? Play Inspires!

Provide joyful learning experiences to children and families with a gift to Providence Children's Museum.



Contributions can:

- Honor a child
- Celebrate a loved one
- Memorialize a relative or friend
- Provide a charitable membership to a family in need
- Inspire the next generation's love of learning

Individuals honored by a gift of any amount will be included in the Museum's Annual Report; donors of \$100 or more (the amount of a charitable membership) will also be listed.

Make a gift online at www.ChildrenMuseum.org/Support.asp or send a tax-deductible contribution to Play Inspires!, Providence Children's Museum, 100 South Street, Providence, RI 02903.



Give the Gift of Play!

Give a fun-filled year of play and learning with a Museum membership – the perfect gift for any special occasion.

All memberships include:

- One year of free admission to Providence Children's Museum
- 10% discount at the Museum Gift Shop
- Birthday party discount
- Newsletters full of great family fun

Purchase by November 30 and give an extra month FREE!

Choose a Family PLUS Membership to give discounted reciprocal admission to hundreds of children's and science museums. A Supporting Play Membership includes those benefits plus a \$100 tax-deductible gift to fund a charitable membership.

Visit www.ChildrenMuseum.org/Membership.asp to buy online.

Grants & Gifts

\$1,500 or more for non-capital campaign support received June 7 through September 7, 2012

The Bank of America Charitable Foundation, Inc.

\$25,000 for general operating support

Textron Charitable Trust

\$7,500 to support Head Start/Good Start and Learning Clubs

Neighborhood Health Plan of Rhode Island

\$5,000 for free NHPRI member admission

The Providence Shelter

\$3,000 to support Head Start/Good Start

Betty & Ed Capozzi

\$2,500 for general operating support

Russell B. Gross Jr.

\$2,500 for general operating support

Harry M., Miriam C. & William C. Horton Fund, Bank of America, Co-Trustee

\$2,000 to support Head Start/Good Start and Learning Clubs



The Museum welcomes charitable gifts of all sizes. For information, please contact Jennifer Laurelli at (401) 273-5437 ext. 120.

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Member Corner

Providence Children's Museum welcomed **276** new and **239** renewing member families in June, July and August!

Bring a Friend! Members, on December 2 bring an adult friend and his or her family to the Museum for FREE to enjoy exciting hands-on fun and other special offers. Watch for an invitation.

Save BIG! Providence Children's Museum members always receive a discount in the Museum Gift Shop. But from Friday, November 23 - Friday, December 7, receive a **double** discount (20%!) on the entire stock of hands-on toys and games.

Visit www.ChildrenMuseum.org to join or renew today.
 Contact Membership@ChildrenMuseum.org or (401) 273-5437 ext. 221 or for more information.



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Opens November 10!

Seeing Stars?

If your address has a star (★) by it, it's time to renew your membership. Renew before your expiration date and get an extra month FREE!

Try it
at home!

Finding the Way

Try these fun activities to develop spatial sense and practice spatial language!

A-maze-ing

- Draw your own mazes on paper. Try making them inside different shapes or draw the inside lines in interesting designs. Include dead ends and loops for more of a challenge!
- Create a maze with masking tape on the floor or chalk on the sidewalk or driveway. Have a friend put on a blindfold and use words to guide him through the maze, telling him when and where to step or turn. Try it again with him walking backwards. How does it change your directions?
- In the fall, many local farms build walk-through hay or corn mazes. (Visit www.pumpkinpatchesandmore.org for listings by state.) Race through one with your family to see who can find the finish the fastest!

Map It

Study a room for several minutes, then leave and draw a map of the space from memory. How accurate is it? Did you forget anything? Try making a map of your entire apartment, house or neighborhood.

Parents, help young children build mapping skills through recognition of patterns and object placement. Place several household objects on a tray. Have your child study them for a few minutes, then cover the tray. Add or remove an object and ask your child what has changed.