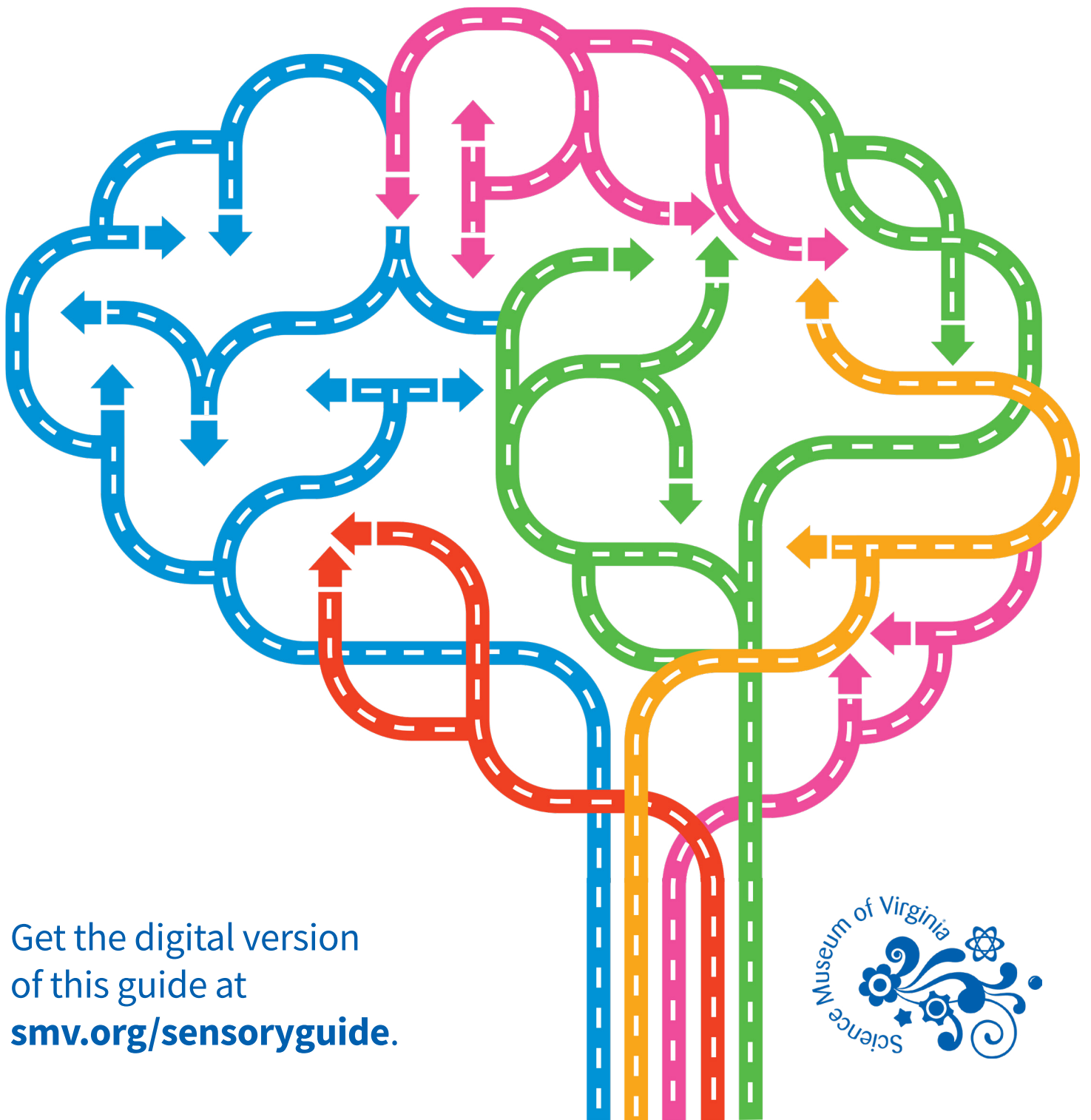


Science Museum of Virginia

# Sensory Guide



Get the digital version  
of this guide at  
[smv.org/sensoryguide](https://smv.org/sensoryguide).



# Experiential Overview

Welcome to an experiential overview of the Science Museum of Virginia.

The Science Museum is committed to providing meaningful, engaging and memorable learning experiences that are accessible and inclusive. We use science, technology, engineering and math (STEM) to inspire guests from all backgrounds, circumstances and communities.

This sensory guide will help you plan your next adventure to the Science Museum. It provides a detailed walkthrough of our experiences, including descriptions of activities and the sensory-related factors associated with each area. We invite you to explore at your own pace, whether you are looking for an afternoon adventure or a full day of fun.

Throughout the guide, the following icons will represent environmental and sensory factors associated with our experiences:



**Element of Surprise**



**Fast Action**



**Flashing Lights**



**Heat**



**Loud Noises**



**Periods of Darkness**



**Scents/Smells**



**Textures**



**Wet**



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### Join Our Family

Remove the pressure of trying to experience all the Science Museum has to offer in one visit. Memberships are a great option for guests who want to engage with the Science Museum at their own pace.

Becoming a member allows you to return to the Science Museum unlimited times throughout the year. Membership discounts are available for seniors, military, educators and EBT cardholders. Visit **smv.org** to review membership levels and perks.

**Be social! Follow us on**



# Resources and Accommodations

The following resources are available to guests with disabilities free of charge. For more information, please contact [accessibility@smv.org](mailto:accessibility@smv.org) or visit Guest Services.

## Autism Spectrum Disorder

- Minds of All Kinds event series
- Social narrative at [smv.org](http://smv.org)
- Designated quiet areas

## Sensory Backpacks

- Developed in coordination with the Autism Society of Central Virginia, each sensory backpack includes noise-canceling headphones, sensory fidget toys, sunglasses, a magnifying glass and activity sheets with crayons.
- Sensory backpacks can be checked out for free from Guest Services. Guests who would like to check out a backpack need to leave a form of ID, which will be returned once the backpack is returned to Guest Services.

## Quieter Times to Visit

- Visitation will vary depending upon holidays, school vacations, weather and other factors. September, January and February are usually less busy, quieter months of the year to visit.
- Wednesday is typically the quietest day of the week at the Science Museum.
- Weekday afternoons after 2 p.m. during the school year are often less busy.

## Deaf or Hard of Hearing

- RF assistive listening in select spaces
- Closed captions on select films
- Scripts for most films
- ASL interpreter with two-week advance notice

## Blind or Low Vision

- Recorded audio descriptions on select films

## Mobility

- Electric scooters and manual wheelchairs from Guest Services
- Elevators travel to all public levels of the building

## Service Dogs










- Welcome on all levels

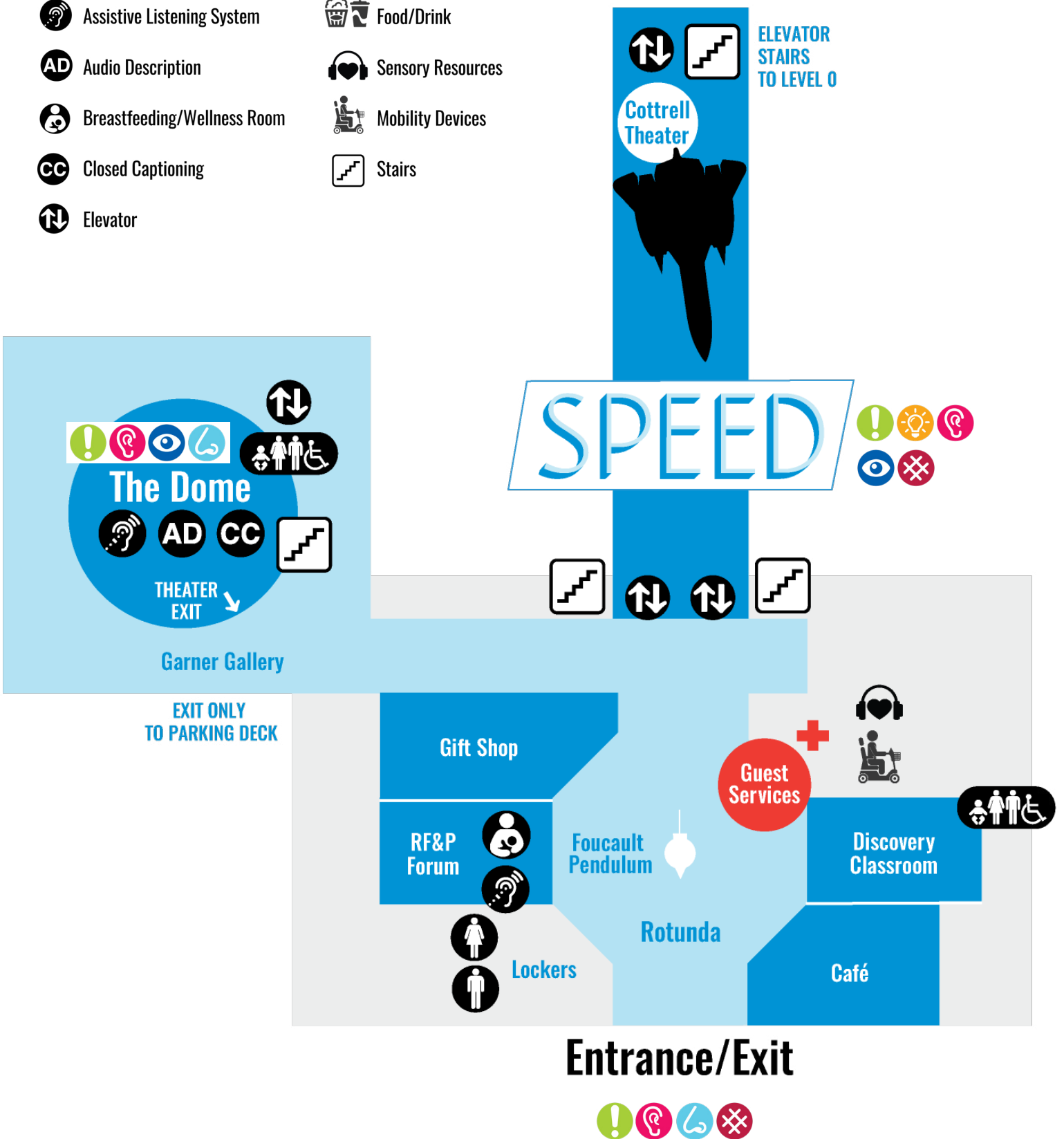
## Accessible/Family Restrooms

- Level 1 through the Discovery Classroom
- Level 1 in the Dome Atrium
- Level 2 in *The Forge*

Please note: all restrooms have accessible stalls.

# Level 1 Map

-  Assistive Listening System
-  Food/Drink
-  Audio Description
-  Sensory Resources
-  Breastfeeding/Wellness Room
-  Mobility Devices
-  Closed Captioning
-  Stairs
-  Elevator



# Entrance and Rotunda

Just inside the front doors, the Rotunda houses the Foucault Pendulum, café, gift shop, breastfeeding/wellness room, restrooms and Guest Services. Guest Services can assist with any needs while visiting. Science Museum admission is not required to access these portions of the building.



**Element of Surprise**



**Loud Noises**



**Scents / Smells**



**Textures**

## Foucault Pendulum



Watch our 235-pound pendulum show how the Earth rotates on its axis as you wait for one of the 79 pegs to fall!

## Café



Stop by our grab-and-go style café for a refreshing beverage and quick bite to fuel your discovery. This space also includes an exhibition highlighting ways edible plants flourish in their environment.

## Gift Shop



Purchase the perfect souvenir from your visit to the Science Museum.



# Speed

*Speed* unveils the mind-blowing intersection of motion and time by displaying demonstrations of the superfast to the incredibly slow. This exhibition is located in the historic main concourse, which is an open, three-story hall that features dramatic blue lighting. Blue lights flash across the ceiling, guests can pitch balls and run on a track, and interactive exhibits include sound. Guests are able to access outside spaces via ramps that lead directly to our collection of vintage trains.



**Element of Surprise**



**Fast Action**



**Flashing Lights**



**Loud Noises**



**Periods of Darkness**



**Textures**

## Age of Wireless

Check out a collection of cell phones through the decades.

## Air Hockey Robot

Ready to play? Compete against a robot and see who wins a game of air hockey.

## Batter Up

Test your batting reaction time to a 90 mph baseball pitch. Keep your eye on the ball!

## Bicycle Race Gear

Find out how high-speed cyclists use technology to protect themselves.

## Change Over Time

Compare relative speeds of change over long periods of time.

## Cosmic Ray Detector

Take a glimpse into the hidden world around you to see tracks left by fast-moving, invisible particles.

## Cottrell Theater

Explore scientific data with a visual presentation on our six-foot suspended Science on a Sphere® globe.

*Speed continued on next page.*



# Speed *continued from previous page.*



**Element of Surprise**



**Fast Action**



**Flashing Lights**



**Loud Noises**



**Periods of Darkness**



**Textures**

## **Earth Timeline**

Check out this eons-in-inches timeline to uncover significant milestones in Earth's history.

## **Evolution in Virginia**

Listen, watch and discover how life in Virginia has been affected by evolution.

## **Extreme Growths**

Explore a variety of surprising growth rates and speeds.

## **Extreme Times**

Think you know fast? Explore a variety of surprising machine speeds.

## **Extreme Weather: Human Wind Tunnel**

Want to feel the wind in your hair? Experience what it's like to move at a variety of high speeds.

## **Face of Technology**

Scan your face and see how computers from different eras would render your image.

## **Flow Chamber**

Position objects in a fluid flow to create disturbances.

## **Fossil Evidence**

Unearth the speed of Virginia's geological change by examining prehistoric fossils.

## **Geologic Time**

Discover the speed at which the Earth's geography has changed in the last 400 years.

## **High-Speed Camera Studio**

Watch your own speedy movements as they are displayed in slow-motion.

## **High-Speed Video Browser**

Use a high-speed video browser to reveal the invisible details of really fast things.

## **Human Timeline**

Get some perspective on time and human history.

## **Laser Range Finder**

Use the speed of light to instantly measure distances with amazing accuracy.

## **Mercury 7 Capsule**

Climb inside and discover what it was like to travel in a space capsule that flew faster than the speed of sound.

## **Meteorite**

Touch and lift a portion of a meteorite that's experienced a fiery trip through the Earth's atmosphere.

## **Moon Rock**

See a real specimen from the Moon.

## **Movies Don't Move**

Explore how what appears as motion is actually a series of still images that move faster than your brain can process them.







## **Outbreak! Spread of Contagion**

Explore the speed with which a contagion can spread and the factors that affect its speed.

*Speed continued on next page.*



# Speed *continued from previous page.*

-  **Element of Surprise**
-  **Fast Action**
-  **Flashing Lights**
-  **Loud Noises**
-  **Periods of Darkness**
-  **Textures**

## **Pitching Cage**

Pitch a ball and measure your performance.

## **Puzzled about Relativity**

Test your knowledge of freaky, but true, relativistic speeds.

## **Quetzalcoatlus**

See how you compare to the size of a prehistoric flying reptile.

## **Racing Bike**

Experience the lightweight technology developed for high-speed racing.

## **Relativity Booth**

What is so special about special relativity? Sit back, relax and find out!

## **Rings of Time**

Learn how to calculate the speed and rate of growth for trees and explore factors that influence their growth.

## **Rotational Speed**

Try your hand at building your own fast or slow turning devices.

## **Sight of Sound**

Slow down the wave pattern of a vibrating string instrument and watch sound waves in action.

## **Slowett Downs**

Choose your competitor and find out which slow-moving object wins the race.

## **Speed Hero Helmet**

Uncover humankind's journey to the Moon and beyond.

## **Speed of Sound Dish**

Use your voice or clapping hands to experience the speed of sound.

## **Sprint Track**

Put on your running shoes and test your sprinting skills against a friend, an Olympic athlete or an animal.

*Speed continued on next page.*



# Speed *continued from previous page.*



**Element of Surprise**



**Fast Action**



**Flashing Lights**



**Loud Noises**



**Periods of Darkness**



**Textures**

## **Sports Artifacts**

See Michael Phelps' swim cap, Arthur Ashe's tennis racket and Jeff Burton's NASCAR helmet.

## **Sports Balls**

Analyze a display of various sporting equipment from curling stones to shuttlecocks.

## **SR-71 Blackbird**

Marvel at the high-altitude, photo-reconnaissance aircraft that accomplished feats that no other before or after it could.

## **SR-71 Flight Gear**

Learn about the personal technology used to protect the lives of SR-71 pilots.

## **Sundial**

Explore how, for more than three millennia, people have used sundials to track and measure time.

## **Take a Second Look**

Watch three types of movements—people, traffic and water—and their change over time.

## **Too Slow to See**

Observe how the appearances of two identical objects change over time when one is exposed to the elements and the other is not.

## **Trading Speed**

See how stock market trading has evolved to shave microseconds off each transaction.

## **Water Camera**

Watch falling water's hidden pattern revealed using modern camera technology.

## **Water Strobe**

See how dripping water is seemingly frozen in time by the fast repeated flashes of a strobe light.

## **World's Slowest Device**

Don't hold your breath while you watch the world's slowest device in motion.









## **You Make the Call**

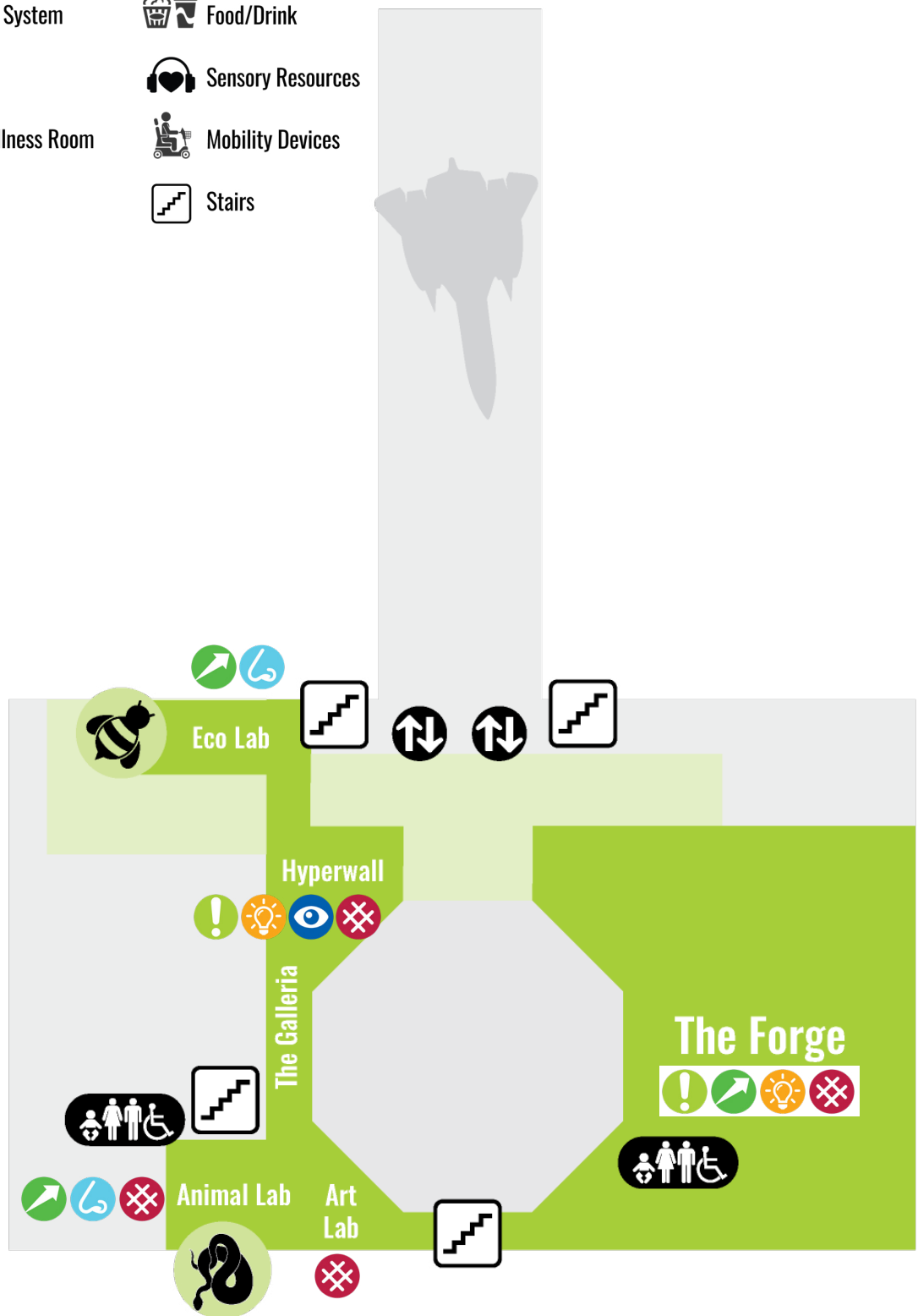
Use your referee and umpire skills to make split-second decisions. Did you make the right call?



© Philip Andrews Photography


# Level 2 Map

-  Assistive Listening System
-  Food/Drink
-  Audio Description
-  Sensory Resources
-  Breastfeeding/Wellness Room
-  Mobility Devices
-  Closed Captioning
-  Stairs
-  Elevator



# The Forge



Part showroom and part workshop, *The Forge* both celebrates and demonstrates the process of design and fabrication. Guests can enjoy the WestRock Gallery during Science Museum operating hours, and the workshop portion of *The Forge* during scheduled hours. Visit Guest Services or [smv.org](http://smv.org) for the workshop schedule. Lights in the WestRock Gallery change colors to give the appearance of movement. Inside the workshop, various tools and equipment can create loud noises unexpectedly.




 **Element of Surprise**


 **Fast Action**

 **Flashing Lights**




 **Textures**

**Ada Robot**    
Watch an industrial robot use liquid chalk markers to draw various images on glass.


**Coding Aquarium**     
Code a sea creature to add to the underwater world.

**Digital Wallpaper**   
Use a touch screen to create a unique wallpaper pattern made of various shapes and icons.

**LEGO Table**   
Express your creativity and freely build with a variety of LEGO® bricks.

**Light Swarm**     
Design a custom display on 500 colorful lights.

**Materials Wall**  
Use a touch screen to learn more about different materials.

**Processes Wall**   
Explore a tactile wall display featuring fabrication materials and techniques used by makers.

**Westrock Gallery**  
Marvel at the products from past and present created by Virginia innovators.



# Inger Rice Learning Center

Explore the world around you! From seeing (and sometimes being able to touch) creatures to creating your own work of art, and from exploring local stories through data to experiencing science through various artistic mediums, there is something for everyone to discover.

 **Element of Surprise**

 **Fast Action**

 **Flashing Lights**

 **Periods of Darkness**

 **Scents/Smells**

 **Textures**

**Animal Lab**   

Explore what different animals need to survive in their environment and how they eat, sleep and live.

**Art Lab** 

Use the materials provided to experiment with art and create your own scientific masterpiece. This classroom-style area offers informal learning experiences with seating provided and room for individuals using wheelchairs.

**Eco Lab**   

This lab is big on all things ecology! From insect and butterfly specimens to rocks and minerals, there's plenty to see. There's a rotating series of interactive elements, but the part that keeps guests buzzing is the observational honey bee hive.

**Hyperwall**    

Explore local-scale environmental, social and climate science stories. Mapping technology combines with immersive projection and touch-screen techniques to create an innovative data visualization experience.

**The Galleria**

Experience science through the lens of art. Throughout the year, this space houses exhibitions featuring a variety of artwork. Most don't include touch elements, but some exhibitions include video and/or audio elements.

**US by the Numbers** 










Take a guess at the top ice cream flavor, hand washing prevalence and more in this touch-screen exhibit. The answers are displayed on a massive projection screen.

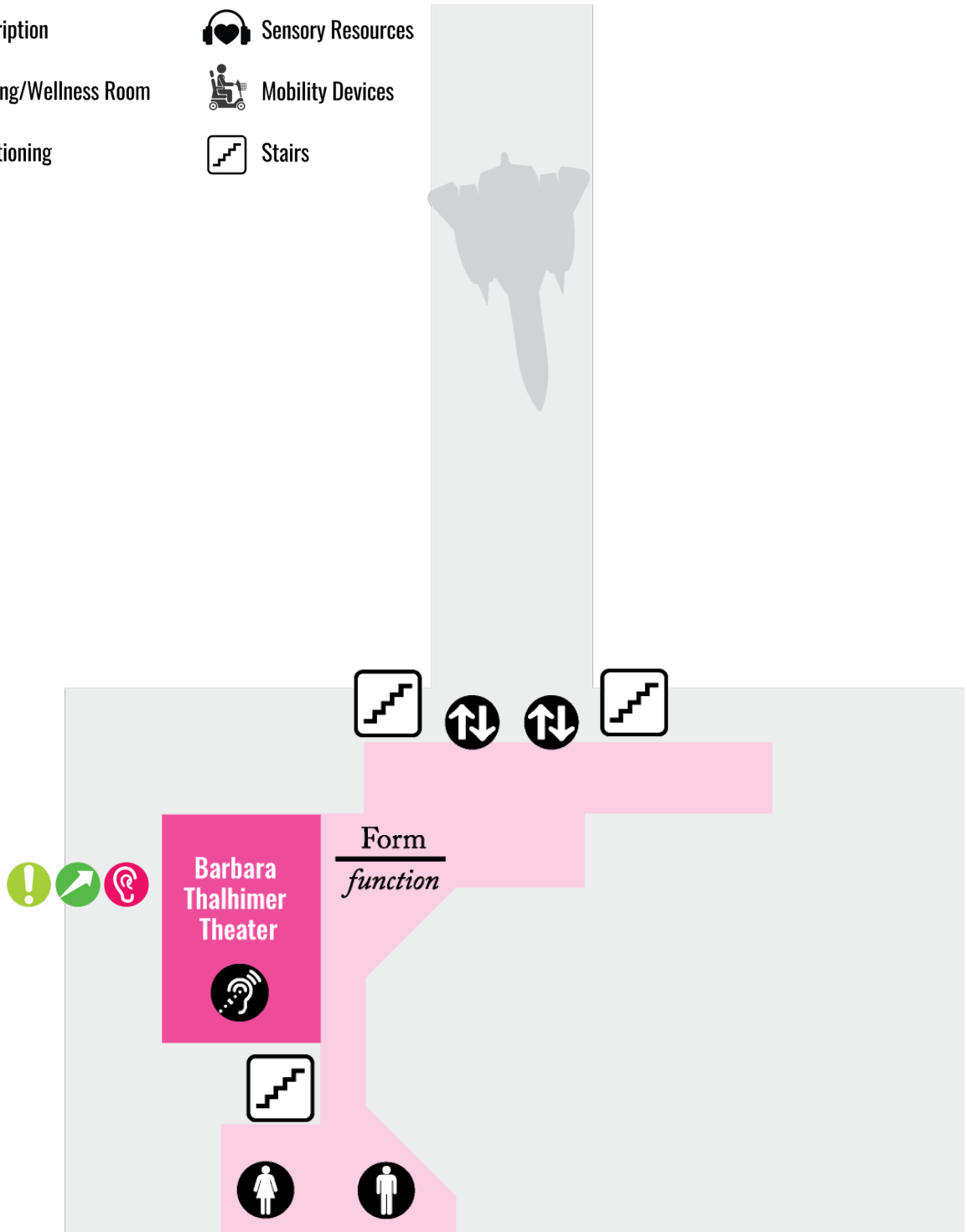


©Cara Pressley



# Level 3 Map

-  Assistive Listening System
-  Food/Drink
-  Audio Description
-  Sensory Resources
-  Breastfeeding/Wellness Room
-  Mobility Devices
-  Closed Captioning
-  Stairs
-  Elevator



# Engaging Experiences

When demos are not in progress, Level 3 is a quieter area of the Science Museum. Half of the level houses administrative offices and the other half contains the Barbara Thalhimer Theater, a 126-seat presentation facility equipped with an accessible entrance and seating, an RF assistive listening system and a high-zoom camera.



**Element of Surprise**



**Fast Action**



**Loud Noises**

## Art Gallery

The Science Museum regularly hosts or curates exhibitions that explore STEM topics through the lens of art. Most don't include touch elements, but video and/or audio elements are sometimes included in the exhibitions.

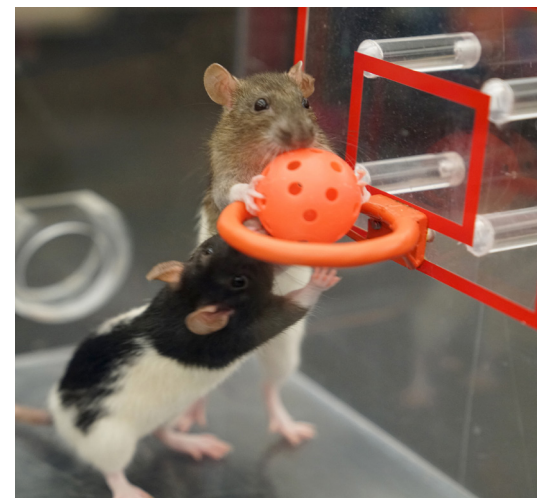


## Live Science Demos

From cow eye dissections to remarkable light characteristics, and from the vacuum of space to liquid nitrogen, educators offer live demos on a variety of STEM topics.

## Rat Basketball

Learn about operant and classical conditioning as you watch rats play basketball. Rat Basketball is typically performed within the Barbara Thalhimer Theater.

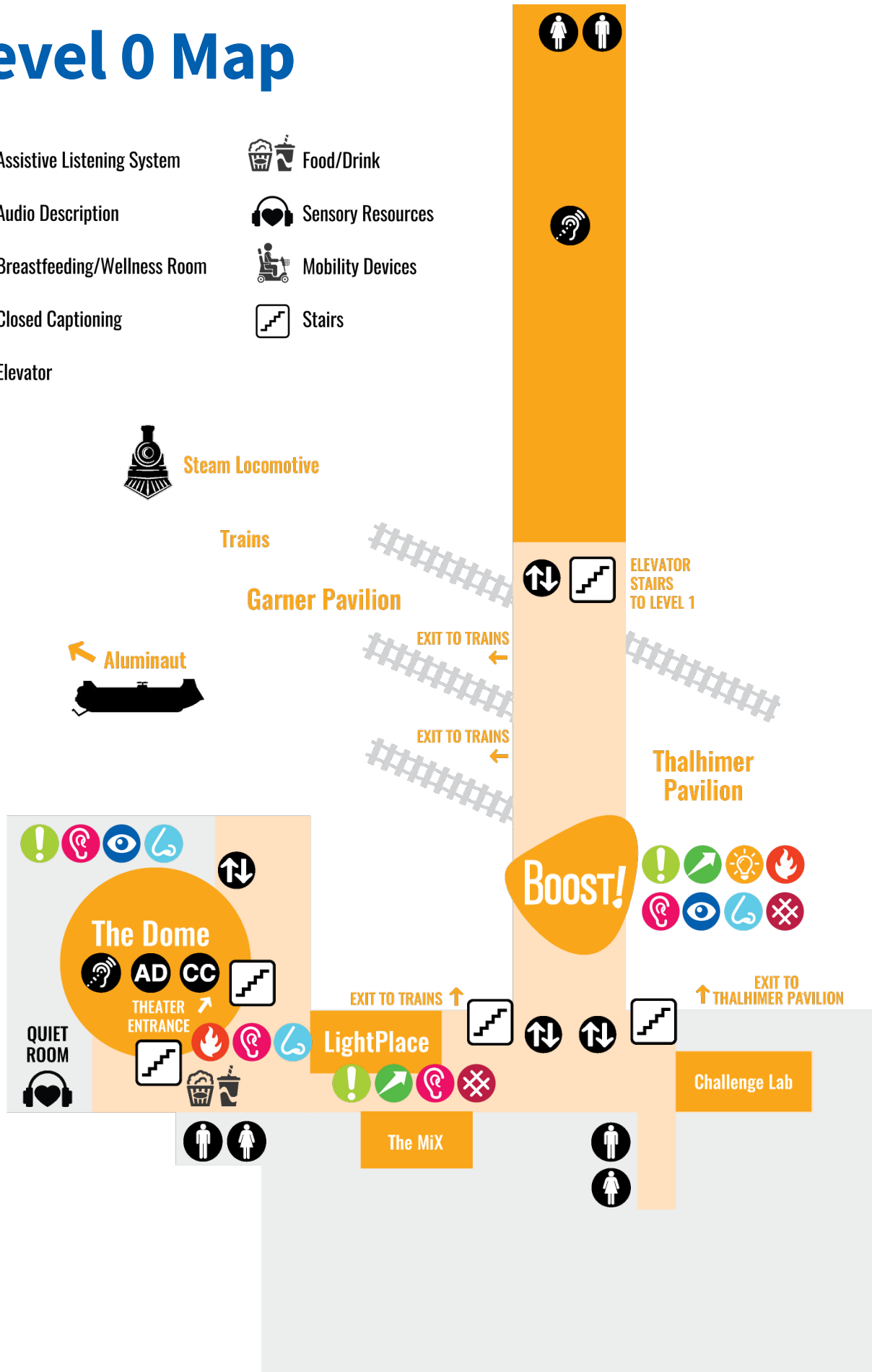


Guests will often be encouraged to cheer and interact which may create excessive noise. Guests may have the optional opportunity to pet the rats after a show.



# Level 0 Map









- Assistive Listening System
- Audio Description
- Breastfeeding/Wellness Room
- Closed Captioning
- Elevator
- Food/Drink
- Sensory Resources
- Mobility Devices
- Stairs





# Boost

A unique approach to wellness and self-improvement, *Boost* presents interactive physical and mental challenges. Featuring striking architectural elements, dramatic purple lighting and natural wood accents, this exhibition includes stations that encourage guests to reflect on goals while completing specific activities. This space is flanked by doors that give you outdoor access to our historic trains and also provides additional seating for rest and personal reflection.

-  **Element of Surprise**
-  **Fast Action**
-  **Flashing Lights**
-  **Heat**
-  **Loud Noises**
-  **Periods of Darkness**
-  **Scents/ Smells**
-  **Textures**

## **Bench Press**

Test your strength on a vertical bench press.

## **Endless Buffet**

Grab friends and tackle a conveyor belt challenge.

## **Feeling Nervous?**

Explore the nervous system by moving your body while the on-screen form follows along.

## **Food for Thought**

Uncover the truth and myths about what we eat in this interactive trivia game.

## **Genes and Traits**

Discover how your genes make your body unlike any other.

## **Giant Lever**

Explore mechanical advantage using a human-size simple machine.

## **Happiness**

Find out what makes you happiest by using the process of elimination, and share your level of happiness to see how it compares to other guests.









## **Hit That Note**

Hear a tone and see how closely you can match and hold it.

*Boost continued on next page.*



# Boost *continued from previous page.*

-  **Element of Surprise**
-  **Fast Action**
-  **Flashing Lights**
-  **Heat**
-  **Loud Noises**
-  **Periods of Darkness**
-  **Scents/Smells**
-  **Textures**

## Human Hamster Wheel

Take a spin to see your energy output.

## Kitchen Stadium

Step into our kitchen as we create something delicious and nutritious. Please see the daily schedule for live demos planned during your visit.

## Look at This!

Track your eye movement. The results may surprise you!

## More Cowbell

Compose new music using animatronic acoustic instruments.

## Multitasking

Learn how doing more than one task at a time impacts performance.

## Pattern Play

Test your memory by replicating visual spatial patterns that increase in difficulty as you level up.

## Recipe Remix

Build your own recipe to try at home.









## Reaction Time

Test your reflexes by measuring how fast you can react to lights in a random sequence.

*Boost continued on next page.*



# Boost *continued from previous page.*

-  **Element of Surprise**
-  **Fast Action**
-  **Flashing Lights**
-  **Heat**
-  **Loud Noises**
-  **Periods of Darkness**
-  **Scents / Smells**
-  **Textures**

## Self Control

Follow along with a virtual dance instructor to learn moves to popular songs.

## Shrink to Fit

Bend, fold or contort yourself to become as compact as possible.

## Time Machine

Unlock the power of time in pedaling to reach your personal destination.

## Total Recall

Challenge your short-term memory with a timed matching game.

## Vertical Leap

Jump from a standing position to find out how far you can get off the ground.

## Water Bottle Wall

Learn how much water it takes to make a burger, fill a swimming pool and more.

## What's Your Passion?





Discover the passions of hundreds of celebrities and iconic people.



© Dave Parrish Photography for Richmond Region Tourism


# LightPlace



*LightPlace* is a multifaceted exploratory exhibition for infants to 5 year olds. Rotating age-appropriate, light-themed activities may include pattern play, rainbows, reflections, counting, sorting and shape-matching. With one entry point, this space provides a safe and active environment for our youngest scientists. Featuring a large glass wall, this area provides a bright, colorful atmosphere for families.


-  **Element of Surprise**
-  **Fast Action**
-  **Loud Noises**
-  **Textures**

**Bright Climber**    
Climb platforms and reach new heights in this interactive experience.

**Building Blocks**    
Assemble assorted blocks to construct a castle, build a tower and more.

**Building with Magnets**   
Use your imagination to build various shapes and structures with colorful magnetic tiles.

**Everbright Light Wall**    
Rotate circular dials to adjust the hue of hundreds of lights and make a dazzling display.

**Infant Zone**   
Crawl, sit or cruise in a padded play area for infants. Interact with soft toys and shake a set of tubes filled with different objects for a fun sensory experience.

**Litebrite**   
Place colored pegs into a giant board to create large scale art with light.





# The Dome

From flying through the asteroid belt to trekking the African Savanna with a herd of elephants to diving into the ocean to swim with exotic creatures, our full-dome theater allows guests to experience fascinating and elusive places on and off our planet. The Dome features a rotating selection of astronomy shows and giant screen films that explore the far reaches of different worlds in stunning clarity.

The Dome has 250 fixed, plush seats with additional seating areas at the top of the theater for wheelchairs and stand-alone chairs. Prior to the start of a film, the theater has soft lighting underneath the nearly quarter-acre screen, which features slowly transitioning lights or astronomical scenery. Features begin after an educator makes announcements.

Giant screen films are 45-minute features with no live content. Astronomy shows are shorter films followed by a live presentation from an astronomer. While the theater will have periods of darkness during presentations, guests are welcome to leave at any time as the stairs will be lit for safety throughout the presentation.









Please note: Additional sensory factors will vary based on the giant screen film or astronomy show content.

-  **Element of Surprise**
-  **Loud Noises**
-  **Periods of Darkness**
-  **Scents / Smells**



# Extras - Inside

Level 0 showcases a wide variety of science and innovation. See the world's first aluminum submarine, marvel at the technological innovations involved with rail transportation and explore energy consumption. Some experiences are located outside, so guests will be subject to weather conditions the day of their visit.

-  **Element of Surprise**
-  **Fast Action**
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-  **Scents/Smells**
-  **Textures**

## Concessions

Grab a drink, popcorn and sweet treat to enjoy in The Dome while watching your film.

## Million Wall

Discover how long it takes to count to one million.

## Watt Wall

Track the world's energy consumption and learn about alternative energy sources that will fuel our future.

## Journey Through Life

This lenticular glass mural appears to move as you pass by. From one side, you get the illusion you're growing from microscopic to human-size. From the other side, you get the sense you're going from Earth-size to human scale.

## Quiet Room

Step away from more active parts of the building and experience a calming environment. The space is equipped with tactile objects, soothing lighting and seating zones to promote relaxation and self-regulation.

## The MiX

In this membership-based, teens-only area, 13–18 year olds work solo or together to build, code, film, sew and much more. Teens should apply for a free guardian-approved MiX membership to access this makerspace during specified hours. Visit [smv.org](http://smv.org) to learn more about *The MiX*.



# Extras - Outside



Heat



Textures

## Aluminaut

See the world's first aluminum deep-ocean submersible used for research and rescue missions.

## Car ONE

This luxurious train car was built in 1919 by the American Car and Foundry Company.

## Dickenson Caboose

This bay-window caboose was made in the 1970s.

## Kitchen Car

Built in the 1920s, this train car served as the onboard kitchen for both rail passengers and crews alike.

## Mail Car

See the train car used by the American Express Agency to move meat, fruits and vegetables across the country.

## Steam Locomotive

This C&O Kanawha class steam engine pulled freight through the mountains of Virginia, West Virginia and Kentucky, traveling 300,000 miles before its retirement.



# Campus Map







 ProtoPath





# Campus Complements

Experience the blend of science and art with engaging sculptures. Spend time connecting to nature and appreciate a wide variety of flora and fauna. These exhibits and experiences are located outside, so guests will be subject to weather conditions the day of their visit. Science Museum admission is not required to access these portions of the campus.

-  **Element of Surprise**
-  **Heat**
-  **Loud Noises**
-  **Scents/Smells**
-  **Textures**
-  **Wet**

## Cosmic Perception

With its 50 spires and dichroic film, this modern art sculpture acts like a giant kaleidoscope to offer different views of the world around you.

## Earth Kugel

Move a 29-ton granite globe using only your finger.

## The Green

Comprised of native flowers and trees, walking paths, benches and interpretative signage, this urban greenspace is the perfect place to watch pollinators, go for a nature stroll, eat a picnic lunch or take a short rest.

## ProtoPath

Enjoy being in nature and take a stroll on the rustic, tree-lined path connecting the Science Museum's campus to Scott's Addition.



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