

SCIENCE MUSEUM OF VIRGINIA

# Curiosity Guide



FOR MINDS  
OF ALL KINDS



# MINDS OF ALL KINDS

Welcome to an experiential overview of the Science Museum of Virginia – for inquiring minds only!

Plan your next adventure to the Science Museum using this resource as your guide. This guide provides a detailed walkthrough of our experiences, including descriptions of activities and the sensory-related factors associated with each area.

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



Scents / Smells



Flashing Lights



Loud Noises



Periods of Darkness



Textures



Fast Action



Wet



Heat



Element of Surprise

The Science Museum is committed to being an accessible and inclusive community resource, providing quality learning experiences and using science to inspire all of our guests – from any background or circumstance. We invite you to explore at your own pace, whether you are looking for an afternoon adventure or a full day of fun.

**Curiosity piqued?** Discover the wonder that inspires learning at the Science Museum of Virginia!

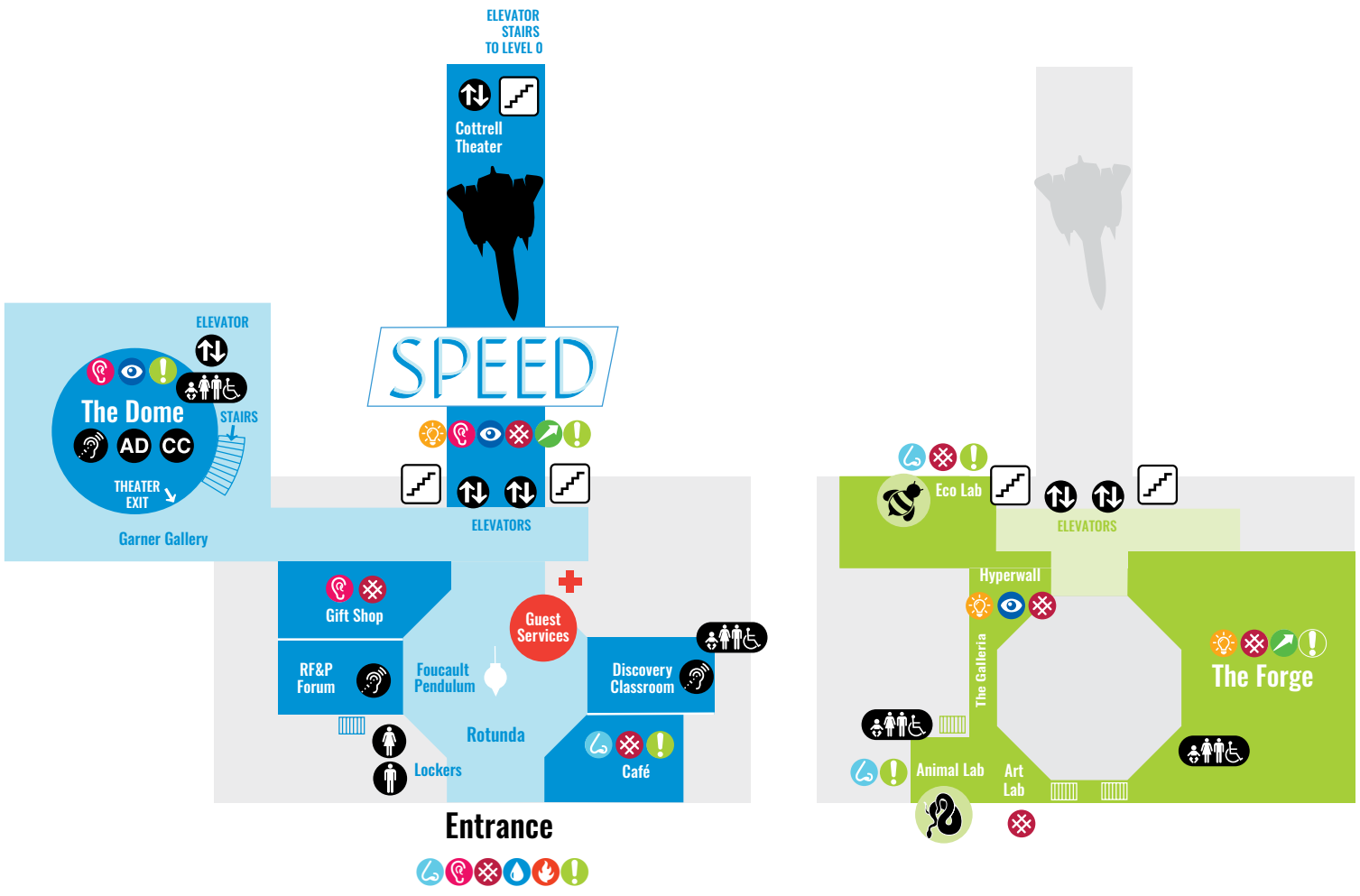
[www.smv.org](http://www.smv.org)

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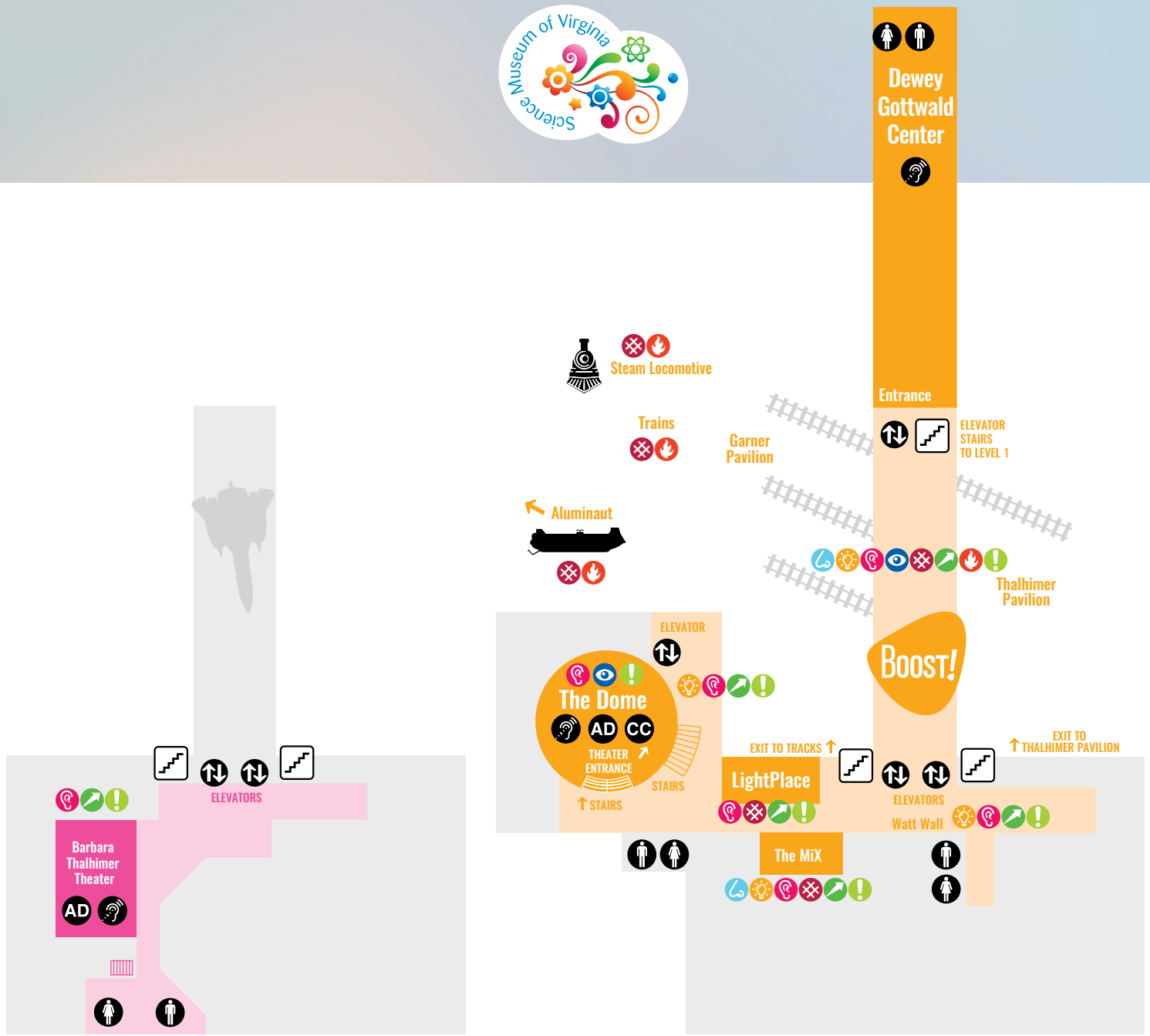
- Scents / Smells
- Flashing Lights
- Loud Noises
- Periods of Darkness
- Textures
- Fast Action
- Wet
- Heat
- Element of Surprise



Earth Kugel

1  
Level

2  
Level



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

**3**  
Level

**0**  
Level

# Science Museum Entrance



Scents / Smells



Loud Noises



Textures



Wet



Heat



Element of Surprise

Learn how the Earth rotates and see 29 tons float effortlessly on water. The Earth Kugel is located outside, so guests will be subject to weather conditions the day of their visit. Just inside the front doors, the Rotunda houses the Foucault Pendulum, gift shop and Guest Services desk. Guest Services can assist with any needs while visiting the Science Museum.



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## EARTH KUGEL

Can you move the Science Museum's 29-ton granite globe?

## 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!

## 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.

## GIFT SHOP

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

## CAFÉ

Stop by our grab-and-go style café for a quick bite to fuel your discovery.



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# Speed



Flashing Lights



Loud Noises



Periods of Darkness



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Fast Action



Element of Surprise

Featuring the SR-71 Blackbird, *Speed* unveils the mind-blowing intersection of motion and time – 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 for a self-lit, sensory experience. Blue lights race across the ceiling and flash throughout the gallery and guests are able to access outside spaces via ramps that lead directly to our collection of vintage trains.

## COTTRELL THEATER

See a presentation on our six-foot suspended Science on a Sphere® globe or watch a live theater performance from our Carpenter Science Theatre Company.

## EARTH TIMELINE

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

## HUMAN TIMELINE

Are your parents so old they rode dinosaurs? Get some perspective on time and human history.

## 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.

## SR-71 FLIGHT GEAR

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

## FLOW CHAMBER

Position objects in a fluid flow to create disturbances.

## SPEED OF SOUND DISH

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

## 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.

## SPEED HERO HELMET

Uncover man's journey to the moon and beyond.

## MOON ROCK

See a real specimen from the moon.

## METEORITE

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

## LASER RANGE FINDER

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

## RELATIVITY QUIZ

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

## RELATIVITY BOOTH

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

## SPRINT TRACK

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

## SPORTS BALLS

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

## YOU MAKE THE CALL

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

## BATTER UP

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

## SPORTS ARTIFACTS

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

## PITCHING CAGE

Pitch a ball and measure your performance.

## 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.

## SIGHT OF SOUND

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

## COSMIC RAY DETECTOR

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

*Continued on next page*

# Speed



Flashing Lights



Loud Noises



Periods of Darkness



Textures



Fast Action



Element of Surprise



Continued from previous page

## HIGH-SPEED VIDEO BROWSER

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

## HIGH-SPEED CAMERA STUDIO

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

## AGE OF WIRELESS

Check out a collection of cell phones through the decades.

## EXTREME TIMES

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

## FACE OF TECHNOLOGY

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

## TRADING SPEED

See how stock market trading has evolved from slips of papers and “tickers” to battling to shave microseconds off of each transaction.

## SUNDIAL

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

## RACING BIKE

Experience the lightweight technology developed for high-speed racing.

## BIKE SAFETY TECHNOLOGY

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

## ROTATIONAL SPEED

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

## SECRETARIAT

Learn about the speed and power of the greatest racehorse of all time.

## SLOWETT DOWNS

Choose your competitor and discover which slow-moving object will win the race.

## WORLD'S SLOWEST DEVICE

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

## FAST ROBOT

Compete against an air hockey playing robot and see who comes out on top.

## RINGS OF TIME

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

## OUTBREAK! SPREAD OF CONTAGION

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

## CHANGE OVER TIME

Compare relative speeds of change over long periods of time.

## TIME-LAPSE CAMERA STUDIO

Watch really slow movements on a live-feed HD video monitor and compare for yourself.

## EXTREME GROWTHS

Explore a variety of surprising growth rates and speeds.

## SPEED OF EROSION

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

## GEOLOGIC TIME

Discover the speed at which the Earth's geography has changed.

## EVOLUTION IN VIRGINIA

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

## FOSSIL EVIDENCE

Unearth the speed of Virginia's geological change by examining pre-historic fossils.

# The Forge



Flashing Lights



Textures



Fast Action



Element of Surprise

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 the Science Museum's website, [www.smv.org](http://www.smv.org), for the workshop schedule.

Swarm lights in the hall of *The Forge* change colors to give the appearance of movement. Inside the workshop, there are various tools and equipment that can create loud noises unexpectedly.



## DIGITAL WALLPAPER

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

## WESTROCK GALLERY

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

## ADA ROBOT

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

## MATERIALS WALL

Use a touch screen to learn more about different materials.

## PROCESSES WALL

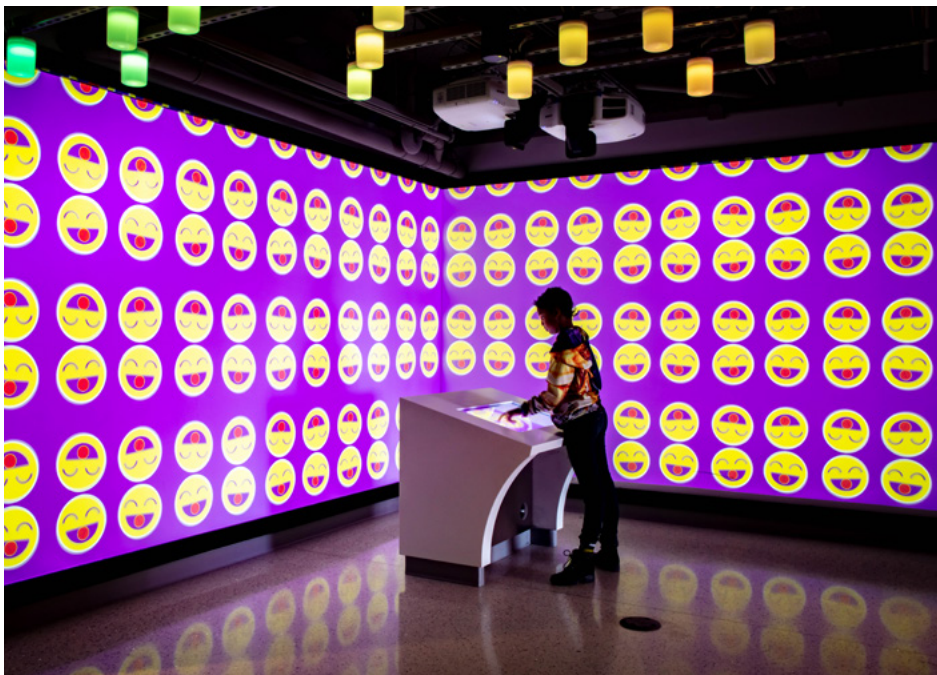
Explore a tactile wall display featuring a variety of fabrication materials and techniques commonly used by makers.

## LIGHT SWARM

Design a custom display on 500 colorful lights.

## CODING AQUARIUM

Code a sea creature to add to the underwater world.





# Inger Rice Learning Center



Flashing Lights



Scents / Smells



Periods of Darkness



Textures



Element of Surprise

The Inger Rice Learning Center lets you explore the world around you. From seeing (and sometimes being able to touch) creatures or creating your own work of art to exploring local stories through data or experiencing science through art, there is something for everyone to discover.

## HYPERWALL

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

## ANIMAL LAB

Come face to face with scorpions, snakes and other reptiles and amphibians in Virginia ecosystems.

## 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.

## THE GALLERIA

Experience science through the lens of art. Throughout the year, this art gallery houses exhibitions curated by Science Museum staff and touring exhibitions featuring a variety of artwork. Most don't include touch elements, but some exhibitions include video elements.

## 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 also a rotating series of interactive elements. But the part that keeps guests buzzing is the observational honey bee hive.

## 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.



# Level 3



Loud Noises



Fast Action



Element of Surprise

Level 3 is a quieter level of the Science Museum, housing the administrative offices. On the east side is the Barbara Thalheimer Theater, a 126-seat presentation facility that is equipped with an accessible entrance and seating, an RF assistive listening system and a high-zoom camera. For information on how to secure accessible seating, please visit our Guest Services desk.

## RAT BASKETBALL

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

## LIVE SCIENCE DEMOS

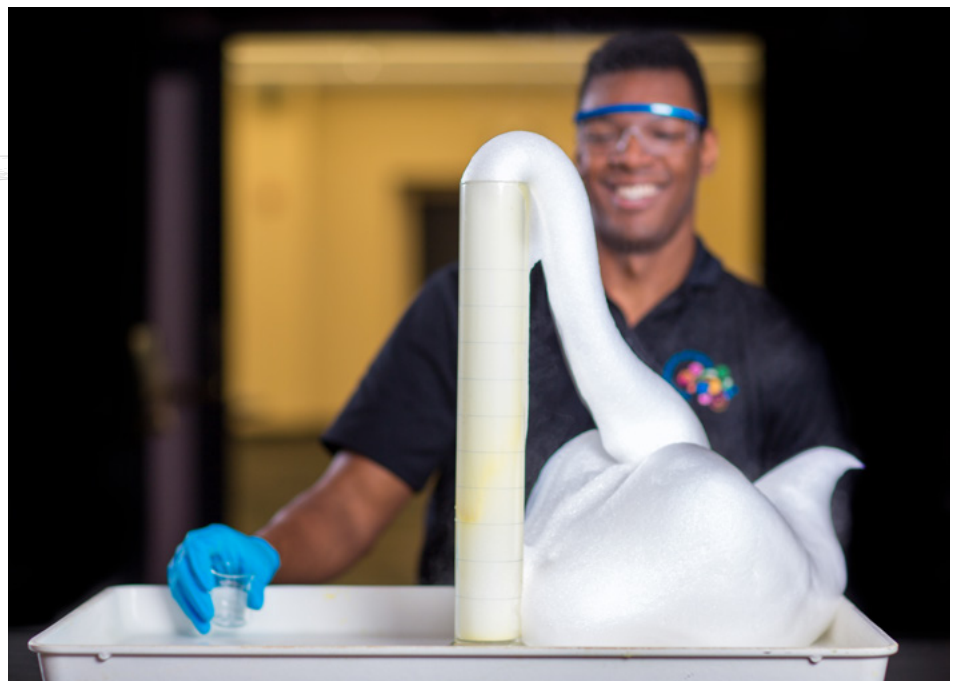
From cow eye dissections to remarkable light characteristics, and from the vacuum of space to liquid nitrogen, educators offer live demos on a variety of STEM topics.

## ART GALLERY

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



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# Boost



Scents / Smells



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Heat



Element of Surprise

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 gallery 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.

## BENCH PRESS

Test your strength on a vertical bench press.

## VERTICAL LEAP

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

## REACTION TIME

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

## SHRINK TO FIT

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

## GIANT LEVER

Explore mechanical advantage using a human-size simple machine.

## HUMAN HAMSTER WHEEL

Take a spin to see your energy output.



## TIME MACHINE

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

## FOOD FOR THOUGHT

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

## KITCHEN STADIUM

Step into our kitchen and help us create something delicious and nutritious.

## RECIPE REMIX

Build your own recipe to try at home.

## HAPPINESS

Find out what makes you happiest by process of elimination.

## TOTAL RECALL

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

## WATER BOTTLE WALL

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

## NERVOUS

Engage your nervous system as you navigate through this movement-activated expedition in neuroscience.

## PATTERN PLAY

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

## CONTROL YOURSELF

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

## WHERE ARE YOU LOOKING?

Track your eye movement – the results may surprise you!

## WHAT'S YOUR PASSION?

Discover the passions of hundreds of celebrities and iconic people.

## MORE COWBELL

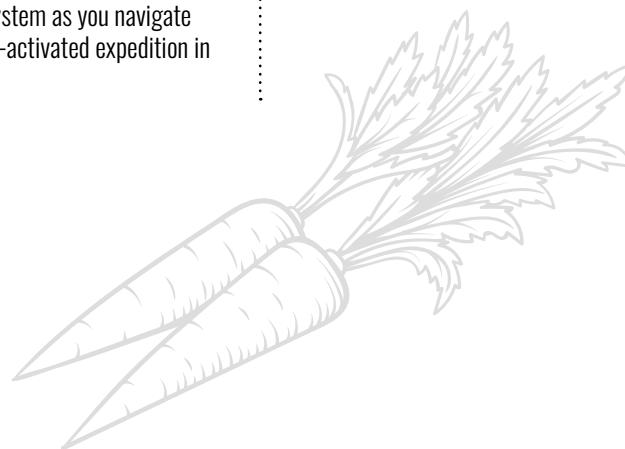
Compose new music using animatronic acoustic instruments.

## HIT THAT NOTE

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

## ENDLESS BUFFET

Grab friends and tackle a conveyor belt challenge by assembling the trays before time runs out!



# LightPlace



Loud Noises



Textures



Fast Action



Element of Surprise

*LightPlace* is a multi-faceted exploratory experience for infants to 5 year olds with age appropriate light-themed learning activities. With one entry point, this space provides a safe and active environment for our youngest scientists with constant on-site support from trained educators and staff. Featuring a large glass wall, this area provides a natural light source and cozy atmosphere for families that includes a semi-private nursing station.



## BRIGHT CLIMBER

Crawl through a tube, climb platforms and reach new heights in this interactive experience.

## EVERBRIGHT LIGHT WALL

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

## LITEBRITE

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

## BUILDING WITH MAGNETS

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

## PATTERN PLAY

Match stars, hearts, triangles and other basic shapes in pattern-based puzzle activities.

## RAINBOWS AND REFLECTIONS

Arrange brilliantly colored arches to make rainbows reflect on a mirrored tabletop.

## BUILDING BLOCKS

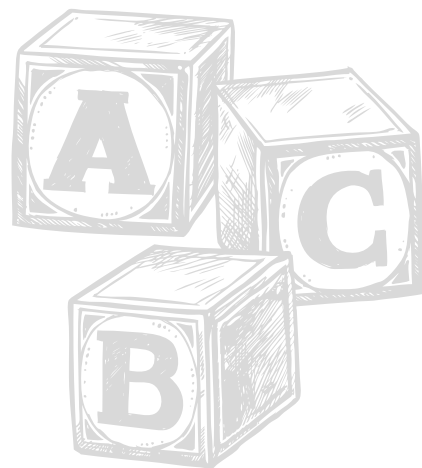
Assemble assorted blocks to construct a castle, build a tower and more.

## COUNTING AND SORTING

Practice counting with puzzles and broaden skills by learning how to sort items based on color and shape.

## 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.



# Level 0 Extras



Scents / Smells



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Element of Surprise

*The MiX* is a teen-only makerspace housed within a moderately-sized, modern workroom featuring worktables, a comfortable lounge area and the latest technology. The space includes a production studio featuring a green screen and audio/visual equipment. Our exterior spaces showcase science and innovation, too! See the world's first aluminum submarine, marvel at the technological innovations involved with rail transportation and more. These experiences are located outside, so guests will be subject to weather conditions the day of their visit.

## THE MIX

Teens work solo or together to build robots, learn how to code, film movies, and much more. *The MiX* requires teens to apply for a free guardian-approved MiX membership and is supervised by MiX mentors and university volunteers.

## WATT WALL

Track the world's energy consumption in real time. Learn about alternative energy sources and new developments in energy that will fuel our future.

## JOURNEY THROUGH LIFE

This lenticular glass mural "moves" 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.

## MAIL CAR

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

## KITCHEN CAR

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

## STEAM LOCOMOTIVE

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

## 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.

## ALUMINAUT

See the world's first aluminum deep ocean research submersible.



# The Dome



Loud Noises

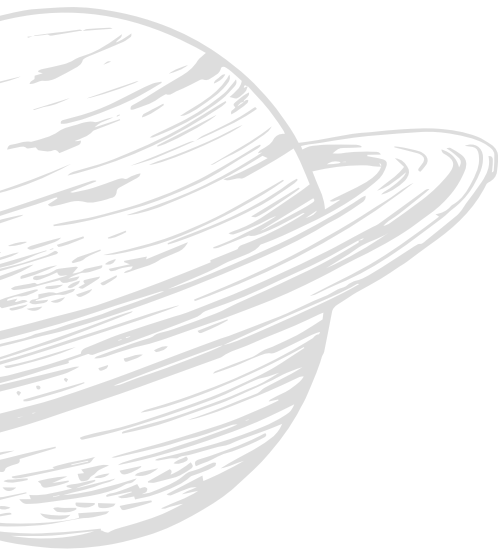
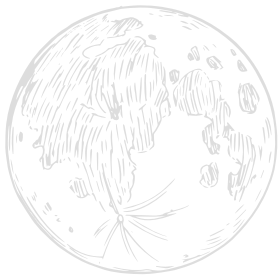


Periods of Darkness



Element of Surprise

From learning how the night sky has inspired Earth's ancient wonders to trekking the African Savanna with a herd of elephants, our full-dome theater allows guests to see the most fascinating and elusive places on Earth and beyond. The Dome features live planetarium content, astronomy shows and giant screen films that explore the far reaches of different worlds in stunning clarity – all from the comfort of your seat.



The Dome has 240 seats with additional seating areas at the top of the theater for wheelchairs and stand-alone chairs. Prior to a film in the theater, soft lighting is provided for safe seating underneath our 76-foot screen showcasing slowly transitional lights or astronomical scenery. Features begin after our Dome operator announces where exits are located. Our Dome operator is present for the entirety of the feature in case of an emergency or if a guest needs assistance exiting The Dome.

Giant screen films are 45-minute features with no live content. Astronomy shows are 25-minute features with a 20-minute live presentation from our astronomer immediately following. 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. To re-enter the theater, a member of our Guest Services team will gladly help you enter through the bottom entrance of The Dome.

Complement your Dome feature with resources meant to bring you the best possible experience. The Science Museum provides rear window captioning technology featuring closed captions which are available upon request. Glow-in-the-dark gloves are available for American Sign Language interpreters and families. The Dome is also equipped with an RF assistive listening system. Recorded audio descriptions and open captions are available on select films. Guests who use wheelchairs or have low mobility may enter The Dome from Level 1 by visiting the Guest Services desk prior to your feature.

The Science Museum is happy to help you schedule an American Sign Language interpreter for your visit. Please make arrangements for an interpreter at least two weeks prior to your visit by contacting us. If you have a special request or would like to receive a copy of our Dome feature scripts prior to or during your visit, please email [accessibility@smv.org](mailto:accessibility@smv.org) or visit our Guest Services desk upon arrival.

*\* Additional sensory factors will vary based on giant screen films or astronomy show.*



## Accessible Resources

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

### Autism Spectrum Disorder

- Minds of All Kinds event series
- Social narrative available at [smv.org](http://smv.org)
- Sensory backpacks available at Guest Services
- Quiet areas available on Level 0 and Level 1

### Deaf or Hard of Hearing

- RF assistive listening in various spaces throughout the Science Museum
- Rear-window captioning available on select films
- Closed captions available on select films
- Scripts available for all films
- ASL interpreter available with two-week advance notice

### Blind or Low Vision

- Recorded audio descriptions available on select films

### Mobility

- Electric scooters and manual wheelchairs available from Guest Services



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