



Museum of Science.



Young Learners Guide

(up to age 7)

INTRODUCTION

The exhibits highlighted inside are ideal for young learners up to age 7. Encourage these natural scientists and engineers to:

- ask questions
- experiment
- solve problems
- *have fun!*

Please return this guide to the Information Desk so that others may use it.

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Look for
this symbol
for spaces
and activities
designed for young
scientists!





Overview of Science Process Skills

Children develop their science process skills while investigating the world around them. These skills lay a strong foundation for **Science Technology Engineering and Math** learning throughout their lives. On each page you will find fun and developmentally appropriate ways to invite your young learner to practice these skills. Look for these icons:



Observing

Using any of the five senses (sight, sound, smell, touch, and taste) to explore and notice.



Measuring

Using numbers to describe an object. How many blocks tall are you?



Classifying

Sorting based on similarities and differences. Can you find matching shapes?



Experimenting

Making changes and noticing differences. Which shoes keep your feet the driest on a rainy day? Can you make a plan to find out?



Predicting

Making guesses using what we already know. If we put a rock in water, do you think it will sink or float?



Communicating

Sharing ideas through talking, listening, drawing, and playing.



Inferring

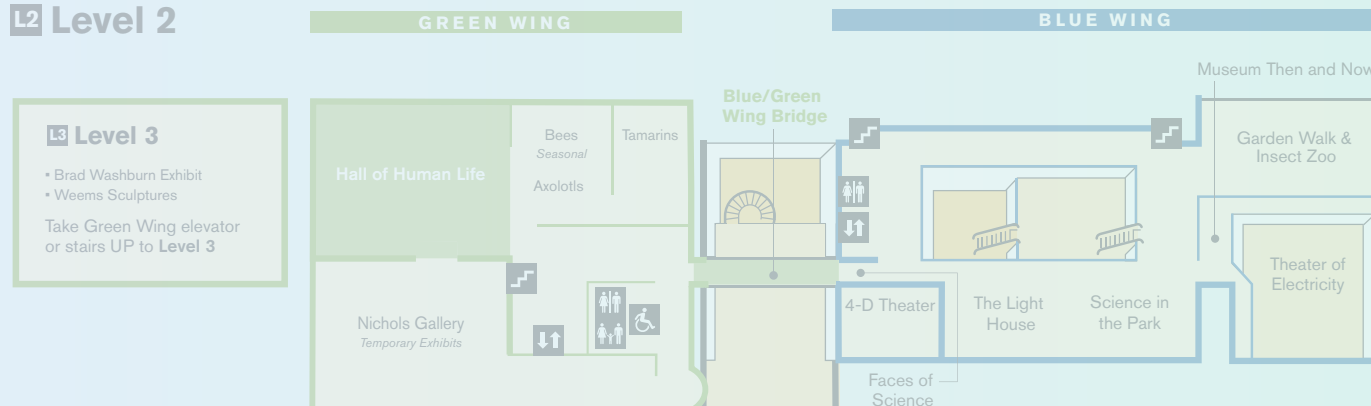
Using what you already know to make connections in thinking about something new. What reminds you of this?



Museum Map: Explore Level 1

This map highlights key experiences for families with young learners. Exhibits subject to change. Please refer to mos.org/visit/map for the most up-to-date offerings.

L2 Level 2



L1 Level 1



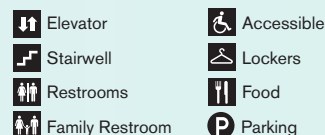
Lower Level



Accessibility Services

First Aid and other emergencies
Lost Children: instruct children to report here
Lost & Found (or call 617-589-0319)

Baby changing facilities available in restrooms
Nursing: Anywhere in the Museum is fine
Wheelchairs, Electric Scooters, Strollers, Semi-Private Nursing Area access



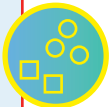
Explore Level 1, Red Wing



Audiokinetic Sculpture



Do you see a ball? Can you point to it? What is it doing? Make a prediction. Where will it go next?



What shapes do you notice? Can you count them? How many circles, rectangles, and triangles do you see?



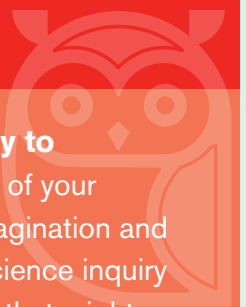
Musical Stairs



Want to make music by walking up a staircase? Walk up the staircase next to the audiokinetic sculpture with an adult. Do you hear any sounds? Do all of the steps sound the same or are they different?

ASKING QUESTIONS

There isn't one "right" way to investigate. Follow the lead of your young learner's awesome imagination and support them by modeling science inquiry skills. Ask "Why do you think that might be happening?" or say "I don't know the answer, but let's find out together."



Predicting



Classifying



Experimenting



Explore Level 1, Blue Wing



Engineering Design Workshop, Powered by MathWorks (EDW)

Your young one is already an engineer! When they play, they test how materials work, problem solve, use materials in new ways, and try again! Be sure to check out the young learner pockets on the side walls.



What do you think will happen when you press the buttons in this room?

Buttons are a great way to learn about cause and effect!



Can you move the magnets in the Sift and Sort so that ALL the balls reach the bottom? How about NO balls reaching the bottom?

Watch underneath the machine. The balls roll back to the far end of the ramp so that they can travel back to the top—and you can test out your design again!



Arctic Adventure

Ready to go on an adventure to another part of the world? Look for the exhibit with large white ice walls and blue lights, and you'll soon find yourself in the Arctic!



What arctic animals can you see?

You might get a quick peek if you look into the holes in the wall. See how many animals you can count and find!



Find and feel the ice wall. What do you notice? What do you see?

WHAT IS TECHNOLOGY?

Technology helps scientists explore in the harsh Arctic climate. But it's not always as sophisticated as this—technology is any tool used for a purpose. Your young learner might be familiar with these from their own toys: wheels, levers, ramps, scissors, utensils, flashlights, containers, hinges, jugs, backpacks.



Predicting



Experimenting



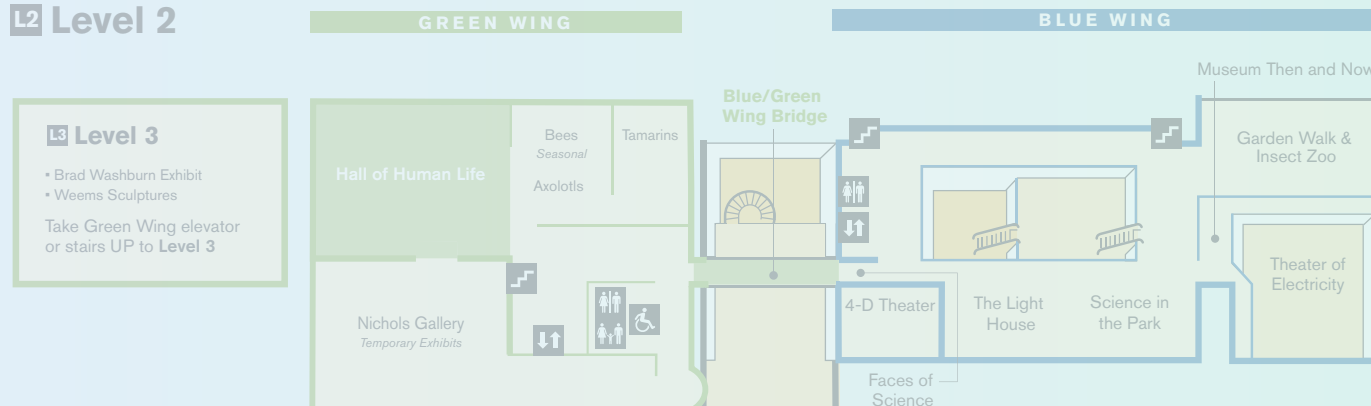
Observing



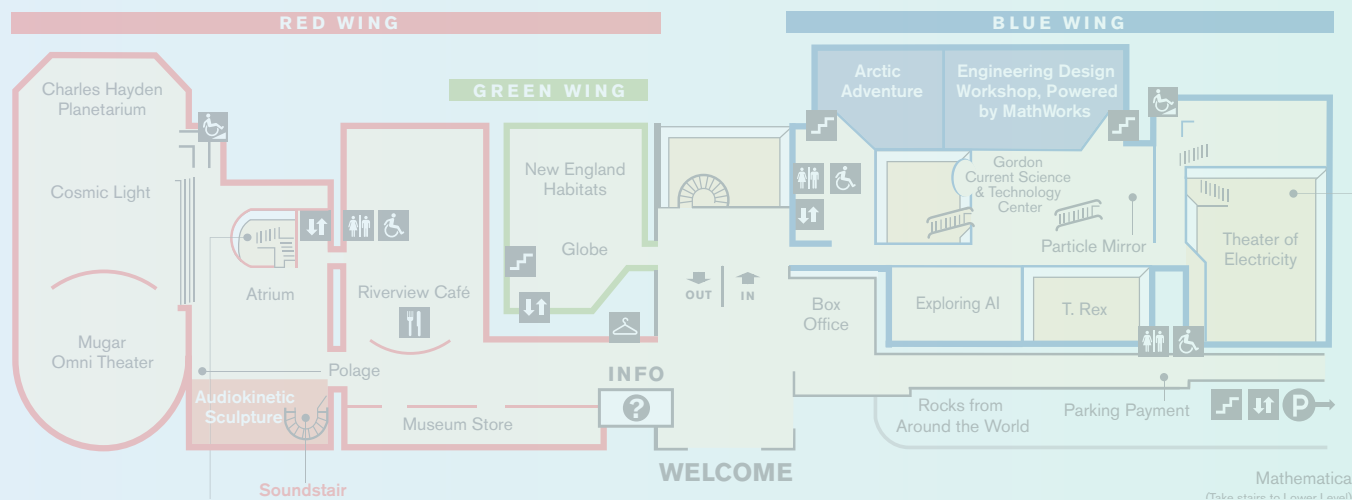
Museum Map: Explore Lower Level

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L2 Level 2



L1 Level 1



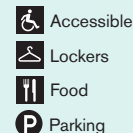
Lower Level



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Explore Lower Level, Blue Wing



Escalators



On the side of the escalator, a window shows how the inside of escalators work. What do you notice? How is going up and down an escalator different from using stairs? Which one makes your body feel more tired?



Dinosaurs: Modeling the Mesozoic



Do you have teeth like a *T. rex*?

What other body parts does the *T. rex* have that you also have? Does the *T. rex* have any body parts that you don't have?



Can you find the *T. rex* footprint?

Try looking behind it! How does your hand compare to the size of a *T. rex*'s foot?



Apollo Space Capsule



Are you ready for your mission to the Moon? Pretend to be an astronaut inside of the space capsule! What supplies do you think you might need for your trip?

SCIENCE PROCESSING SKILLS

Let your young learner know when they practice Science Process Skills.

Celebrate their ability to communicate observations, classify sizes, or make inferences. They don't have to wait to be scientists!



Inferring



Communicating



Classifying



Measuring



Explore Lower Level, Green Wing



Natural Mysteries

Explore our collection of natural artifacts, and don't forget to open the drawers!



Practice your sorting on the circular tables on both ends of the room.

Which rocks seem alike? Which shells do you think are different from each other?



Beside the schoolhouse, there are some leaves that need matching!

Can you match the leaves based on their shape and the bumpiness of their sides?



A Bird's World



Have you seen any of these birds before? What did you notice? Listen for bird sounds in the exhibit. Have you ever heard noises like this?



Birds come in all sizes and colors! Can you find one as tall as you? How about a blue bird? One with a really long beak?



Yawkey Gallery *on the Charles River*

Learn about the nature past these windows.



Pretend you're a rat moving through the sewer! Can you crawl through the sewer under the fish tanks and find some rat friends? How many can you spot?



What animals can you find in this room? Some are metal sculptures and others are alive in water tanks and habitats! How do the sculptures feel?

PARALLEL TALK

Natural Mysteries is a great exhibit to practice making descriptive observations with your young learner and vocalizing their actions (**parallel talk**). Even if they don't yet have the vocabulary to express their own observations, you can reinforce their developing scientific thinking skills.



Inferring



Classifying



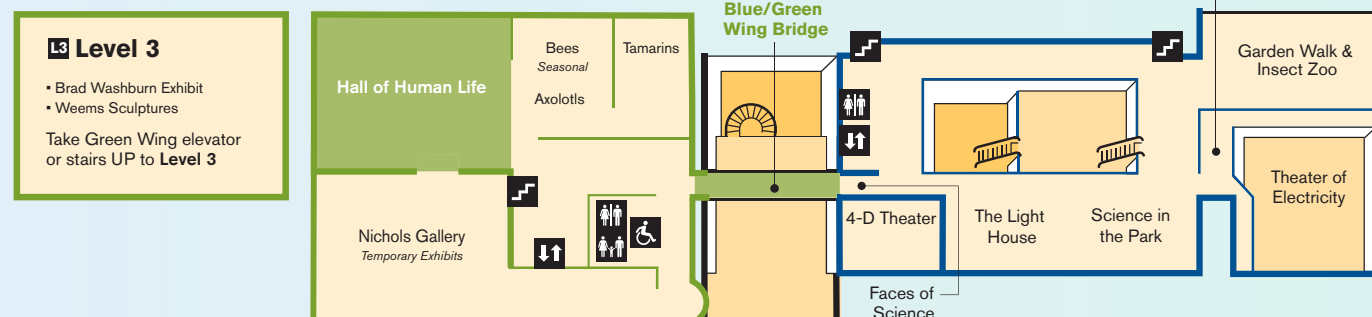
Observing



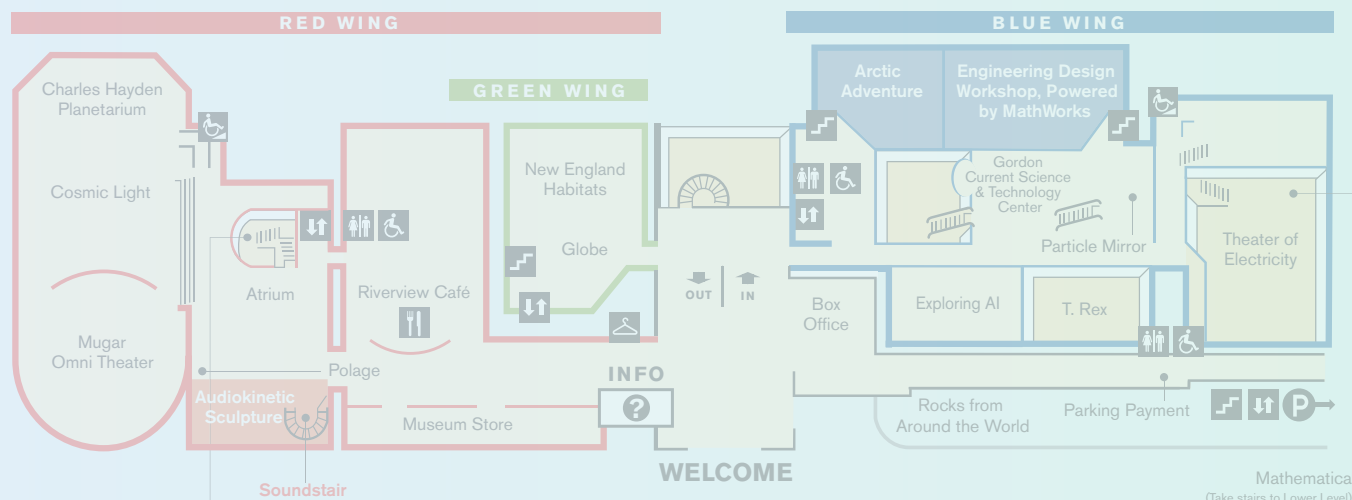
Museum Map: Explore Level 2

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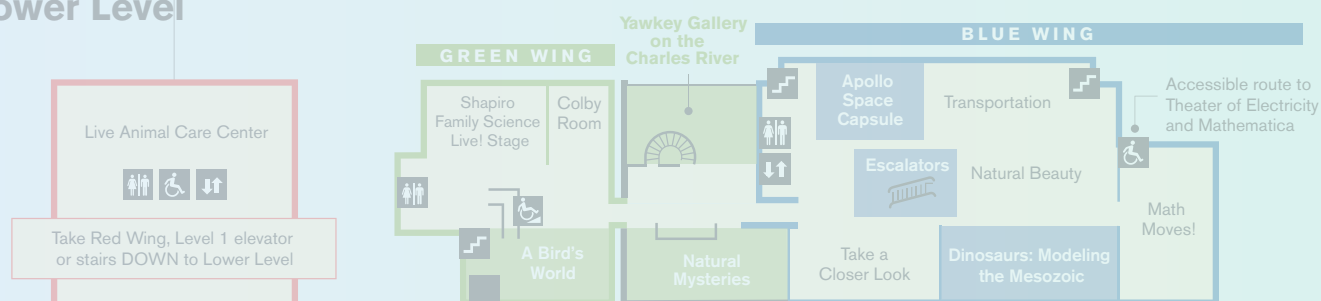
L2 Level 2



L1 Level 1



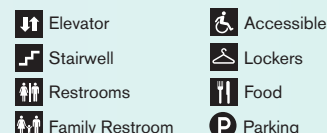
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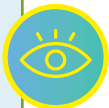
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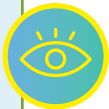
Explore Level 2, Green Wing



Blue/Green Wing Bridge



Above you is a big screen! What can you see on it? Wow, look at it change!



What if you look out the window near the bridge? What things can you see on the river? Do you see people walking around below you? Wave hello!



Hall of Human Life

Our body is really special. Let's explore and learn some things about ourselves.



How Efficient Is Your Walk? What do you look like when you walk? Try different movements and explore how your body and shape changes. Do you have a favorite way to walk?



What things can we measure using our bodies? Pick two fun places in this room. How many steps does it take you to get from one to the other?

SPATIAL AWARENESS

Gaining spatial awareness of our bodies is a steppingstone to understanding basic math and geometry concepts. *Near and far* can be understood in relation to our body's ability to reach, and we can manipulate our body to move in big or small ways. Model using direction words (in front of, behind, above, below, over, under) as you explore.



Observing



Experimenting



Measuring



More to Explore

Keep an eye out for Drop-In activities such as Design Challenges and the Charles River Field Station, and check the daily schedule (mos.org) for presentations and shows like *Live Animal Story Time*, *Big Bird*, and more.



Design Challenges

Participate in a hands-on activity to design, build, and test a prototype solution to a given problem.

Engineering Design Workshop; Blue Wing, Level 1



Charles River Field Station

Join a Museum educator and explore the natural world with a variety of hands-on investigations.

Yawkey Gallery; Green Wing, Lower Level



Live Animal Story Time

Hear a story and meet one of our furry, feathered, or scaly animal stars in a presentation made especially for our younger visitors!

Shapiro Family Science Live! Stage; Green Wing, Lower Level



Big Bird's Adventure: One World, One Sky

Explore the night sky with your friends from Sesame Street and learn about the Big Dipper, the North Star, and more!

Charles Hayden Planetarium, Red Wing, Level 1



Big Bird's Adventure: One World, One Sky (Soft Light, Soft Sound)

Enjoy a special version of the hit show with softer sound and light and looser house rules.

Charles Hayden Planetarium, Red Wing, Level 1

Learn More:



mos.org/young-learners

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