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OMSI Fast Facts

Background

- OMSI is one of the nation's leading science museums and one of Oregon's most popular tourist attractions
- OMSI is a 501(c)(3) private, non-profit corporation
- Founded in 1944 by Dr. John C. Stevens, a Portland civil engineer
- The first museum was located in a house on Hassalo Street in Northeast Portland
- The first new OMSI at Washington Park was the result of a community barn raising in 1957, where more than 400 volunteers laid 102,000 bricks to raise the walls in one day
- After an unprecedented fund-raising campaign, the new Water Avenue facility opened in the fall of 1992, funded by private donations, foundation grants and public bond issues

Museum components

- Five exhibit halls, over 200 interactive exhibits and eight laboratories
- 300-seat Empirical Theater with four-story-tall screen
- 200-seat Harry C. Kendall Planetarium/Laser Light Venue with state-of-the-art video projectors and Digistar 3 projection system
- The USS Blueback, a 219-foot diesel electric submarine and the most modern U.S. submarine on public display in the country
- A high-speed motion simulator ride
- OMSI Science Store, café, and restaurant, Theory
- More than 750 parking spaces, including RV spaces, separated by environmentally friendly bioswales which filter runoff before it enters the Willamette River
- 25,000 sq. ft. exhibit-building shop

Key Programs

- The largest museum-based, traveling science exhibits program in North America. OMSI has developed over 45 interactive science traveling exhibits - including popular exhibits such as Animation featuring Cartoon Network, Moneyville, Eyes on Earth, Brain Teasers, BUSYTOWN™, and Mindbender Mansion, that have been featured at museums throughout the world
- The largest science outreach education program in the United States
- Teacher education programs and in-service workshops serving seven Western states
- Educational field trips and hands-on lab sessions in our eight interactive laboratories
- Camps and classes throughout Oregon and the Pacific Northwest for youth as well as families and adults
- Community events exploring a wide range of relevant topics combining science, technology and the arts
- Special benefits and programs for members
- Volunteer and Internship opportunities
- SE Water Avenue at the East end of the Hawthorne Bridge
- Located on an 18.5-acre site along the scenic Willamette River across from downtown Portland
- The 219,000-sq.-ft. facility incorporates the historic Portland General Electric Hall, which generated power for downtown Portland for nearly 65 years

Our History

The concept of OMSI was born more than 100 years ago in the mind of famed naturalist C. Hart Merriam. In 1896, after visiting a temporary exhibition of natural history specimens at City Hall, he challenged his Portland audience to provide a permanent site for the exhibition of Oregon's rich natural resources. In 1906, a City Hall Museum was established for displaying some of the amazing collections received from local donors. Despite public demand, by the 1930s these exhibits had been placed in storage due to the need for more office space in the building. An effort in 1930 to start a Portland Museum of Natural History was soon derailed by the Great Depression. Then, in 1938, Portland civil engineer J.C. Stevens joined the museum effort when he was appointed chairman of the Geological Society of the Oregon Country's museum committee. Stevens remained one of the museum's strongest advocates for the rest of his life, serving as both President and Board member throughout the years.

Due to delays caused by the Second World War, it was not until 1944 that the idea of a museum began to take shape with the incorporation of the Oregon Museum Foundation. In 1946, the first display of natural history objects was exhibited by the Foundation at the Portland Hotel. Support for the museum continued to grow and in 1949, businessman Ralph Lloyd allowed the Foundation to set up a temporary museum in a house he owned on NE Hassalo Street. It was in this location that the museum was first given the name "Oregon Museum of Science and Industry." Within a year, the Pacific Northwest's first public planetarium opened on the site, giving visitors the chance to take a 20-minute trip to the stars under its dome.

By 1955, annual attendance at the Hassalo House had swelled to more than 25,000 but the house was set to be demolished to make way for a new hotel. The house had always been considered a temporary home and there were very early plans to build a dedicated museum building, but the museum had no land to build on. The City Council stepped forward and agreed to lease land in Washington Park to OMSI for the sum of one dollar per year.

Now that a location had been found, a group of civic-minded business and education leaders began a statewide fundraising campaign to build the new museum of science and technology. In the spirit of pioneer barn-raising of the 19th century, more than 400 volunteer union brick layers and hod carriers laid 102,000 bricks to raise the walls of OMSI's new Washington Park site in one day on August 17, 1957. On June 7, 1958, J.C. Stevens' dream of a dedicated hands-on museum of science and technology became a shining reality with the opening of the Washington Park location. Over the next 35 years as a non-tax based private institution, OMSI's interactive science exhibits and educational programs introduced millions of visitors to the wonders of our world.

By the mid-80s, OMSI's popularity with visitors surpassed the size of its facility as 600,000 people per year attended a museum built to accommodate only 100,000. A new group of community leaders began a campaign to build a state-of-the-art science center, complete with a 315-seat dome-screen OMNIMAX Theater (the first in the Northwest) and an expanded 200-seat planetarium. Five years later, more than \$32 million had been donated by businesses, foundations, and individuals to construct a new museum. The project came together when longtime OMSI supporter, Portland General Electric, generously donated an 18.5-acre site that held a historic sawdust-fired power generation plant. The plans for the new museum incorporated the original smokestack and turbine buildings to blend together technology of the past, present, and future.

On October 24, 1992, the new 219,000 square-foot OMSI opened. In 1994, OMSI opened the USS Blueback for public tours, providing a unique look at the people, history, and technology associated with the last non-nuclear powered submarine built by the U.S. Navy. OMSI has continued to grow over the years and currently has five exhibit halls with hundreds of interactive exhibits and displays. Today, the museum serves more than one million visitors at the museum and through off-site education programs. OMSI is ranked as one of the top science centers in the United States and has an international reputation for its innovative exhibits and educational programs.



Hours & Rates

Hours

Regular Hours*: 9:30 a.m. – 5:30 p.m. Tuesday – Sunday

Summer Hours*: 9:30 a.m. – 7:00 p.m. Monday – Sunday

**Hours may vary according to exhibits*

Open Mondays when Portland Public Schools are closed – specific dates listed on website: omsi.edu/hoursandprices

Admission

	GENERAL		GROUPS**	
	Adults (14-62)	Youth (3-13) Seniors (63+)	Adults (14-62)	Youth (3-13) Seniors (63+)
Museum Exhibits Admission*	\$13.50	\$9.75	\$10.00	\$7.00
Empirical Theater	\$7.00-8.50	\$6.00-6.50	\$6.00	\$6.00
USS Blueback Submarine	\$6.75	\$6.75	\$4.00	\$4.00
Planetarium Show	\$5.75-7.50	\$5.75-7.50	\$4.00	\$4.00
Motion Simulator Ride	\$5.00	\$5.00	n/a	n/a
Museum Combo and Adventure Packs available – call for details.				

** Some featured exhibits may incur additional charges.*

*** Groups of 12 or more must reserve at least 10 days in advance to qualify for the group rate.*

For general information on OMSI hours or attractions, call 503.797.4000 or 1.800.955.6674 or visit <http://omsi.edu>.

Membership

OMSI members receive unlimited general admission to the museum for one full year, and a discount on camps, classes, attraction passes, and purchases at OMSI restaurants and the Science Store. For membership information, call 503.797.4634.

Exhibit Halls & Labs

The Oregon Museum of Science and Industry is 219,000 square feet of brain-powered fun! Five enormous halls bring science to life with hundreds of interactive exhibits and displays. Scientific themes represented include Earth Science, Life Science, Physical Science and Technology, and Early Childhood Education. The Meyer Memorial Trust Featured Exhibit Hall is devoted to national touring exhibits that change several times each year.

Each of the main halls features hands-on laboratories and activity centers led by educators, where visitors can test scientific theories demonstrated in the exhibits and take part in live science presentations throughout the day.

Early Childhood Education Hall

Science Playground: This 7,000-square-foot colorful and vibrant early childhood education area (for infants to kids up to age 6) includes:

- **Water Area:** More than 400 gallons of water gurgles and flows through the Waterworks area. Visitors can enjoy the amazing “water wall” and flow-through interactive activities. Waterworks is best enjoyed in smocks provided by OMSI.
- **Sandland:** Little ones can dig and wiggle their toes in the 11 x 16 sandbox, complete with more than 5,000 pounds of soft, white sand.
- **Infant Area:** Complete with an extra-soft padded floor and seating for parents and caregivers, pre-walking infants can enjoy activities designed to develop their motor skills and gaze at a soothing aquarium filled with fish.
- **Discovery Lab:** Little scientists can enjoy the “Art of Science” and “Discovery Science” areas with kid-size tables and chairs. The Art of Science area offers hands-on activities designed to engage multiple senses and explore a range of materials. The Discovery Science section features “discovery drawers” for exploring everything from simple machines to insect specimens. A new program called Living Laboratory features cognitive researchers who conduct studies with visiting families and talk to them about their work. Please look at the Science Playground calendar for scheduled research and activities taking place in the Discovery Lab.
- **Nature Play:** You can discover nature from an animal’s point of view in the Animal Secrets/Secretos de los Animales exhibit area. Kids (and adults!) can crawl through the roots of a giant tree, venture into a cave, explore a hollow log and investigate tools used by naturalists in this fun-filled exhibit. Animal Secrets features bilingual (English/Spanish) text panels.

The Turbine Hall

Experiment with physical science and technology in this hall named for the large historic turbine generator that serves as its focal point.

Innovation Station: In this exhibit area, visitors can experience engaging, hands-on exhibits and lab activities all exploring the wonders of technology including:

- **Inventors Ball Room:** Visitors can develop creative problem-solving skills inventing various self-designed systems to propel some 10,000 spongy ping-pong-sized balls throughout the hall.
- **Robots:** Visitors can manipulate two large robotic arms normally found in an industrial plant. They can also compare human skills to robotic skills in a “loop and wire” challenge that demonstrates the delicate, yet fast capabilities of these modern marvels.
- **Water Tables:** Visitors can gather at the water table to build water delivery systems serving their “community” using aqueducts, pumps, pipes and more. Other exhibits include a model of irrigation techniques comparing spray, drip and flood methods; a display examining past solutions to global water management problems; and a look at the impact of dams on the environment.
- **Vernier Technology Lab:** This hands-on lab revolves around how technologies have evolved to the modern day. Watch current 3-D printers create functional forms or play with old-fashioned technologies like a Morse code device that sends messages to the physics lab, or a punch-hole technology that mimics how musical rolls were made for player pianos. Enjoy other demonstrations around topics like security, biomedicine, robotics and computers. Activities rotate weekly, giving visitors something new to see with each visit.

Other exhibits located in the Turbine Hall include Engineer It!, a popular engineering design and testing area where visitors can make paper airplanes, boats and structures to test in OMSI’s wind tunnels, water

tanks and shake tables. Visitors can create forms with paper cups and watch them levitate over an air table. Visitors can also step into the Earthquake House and experience the force of a tremor registering 5.5 on the Richter scale. A Space exhibit conveys the excitement and awe of space and space exploration, allowing visitors to launch water rockets 50 feet into the air, test gravity, and try their hand at landing a model space shuttle.

Three hands-on science labs are found in the Turbine Hall. In the Laser and Holography Lab, visitors can explore laser light show effects, investigate the refractive properties of water, and learn how holograms are created. The Chemistry Lab offers experiments where visitors can safely mix, measure and pour chemicals to experience a variety of phenomena such as fizzing, foaming, making substances glow and even exploding things. In the Physics Lab, visitors can touch a hand-cranked Van de Graaff generator and feel their hair rise, use a strobe light to see droplets in a flow of water and watch educators create fantastic electric arcs using the Great Ball of Doom. They can view some of the first phonographs ever made and learn how old-fashioned steam engines were built. In the Nano exhibit, families can enjoy an interactive experience that engages them in nanoscale science, engineering and technology. Hands-on Nano exhibit features introduce real world applications and explore the societal and ethical implications of this new technology.

The Meyer Memorial Trust Featured Exhibit Hall

The 7,000-square-foot featured exhibit gallery features national touring exhibits for temporary engagements, including OMSI-produced traveling exhibits before they hit the road. For a current exhibit schedule, visit omsi.edu.

The Earth Science Hall

This hall focuses on the characteristics of Planet Earth such as geology and tectonics, weather and climate and their inter-relationships with life, both past and present. In our bilingual (English/Spanish) A View from Space exhibit, visitors are challenged to become scientists, study satellite images and answer important questions about our dynamic planet, while learning the value of studying Earth from space. Science On a Sphere is a six-foot suspended sphere that uses computers and video projectors to display dynamic animated images of the Earth's atmosphere, oceans, animal migration patterns, global warming trends, hurricane paths, as well as the surface of the Sun, Mars, Moon and more. The Earth Science Hall also houses the Paleo Lab, where staff and volunteers work on real dinosaurs and ancient Oregon fossils in a setting open to the public. The Watershed Lab allows visitors to create their own rivers, experiment with things that sink and float, learn more about plate tectonics, ice cones and climate change as well as the potential for renewable energy in Oregon and Washington.

Clever Together: Our Everyday Choices/ Juntos Somos Ingeniosos: Una Decisión a la Vez is a bilingual (English/Spanish) exhibit that encourages visitors to make more sustainable decisions by weighing the environmental, economic and social impacts of their choices. The exhibition is accompanied by the Local Voices, Clever Choices website, which highlights local sustainability stories and a challenge-based game for families. Renewable Energy/ Energía Renovable is a bilingual (English/Spanish) exhibit that gives visitors the opportunity to explore how energy from sources like wind, water and sun can support our daily energy needs.

The Life Science Hall

Here, visitors learn about the complex systems within their own bodies. They can explore human growth and development with fun exhibits including a giant ear and auditory canal and a life-sized transparent woman whose organs light-up. One corner is dedicated to nanomedicine including an exhibit that lets visitors target cancer cells in a tumor by sending gold nanoshell balls into the bloodstream through a pinball machine-like model. Visitors can walk through the stages of human development in Beginning the Journey and learn how to increase brain connections while they age in the Amazing Feats of Aging exhibit. The Life Science Hall also houses the Life Science Lab where visitors can touch and hold a variety of animals and insects while learning about these animals' amazing adaptations. Visitors can explore nutrition and fitness

in Eat Well, Play Well/Come Bien, Juega Bien, a bilingual (English/Spanish) exhibition featuring fun, hands-on components.

Empirical Theater

In 2013 the OMNIMAX Theater at OMSI was remodeled to create a new theater that would utilize the latest in high-tech equipment and expand what OMSI could provide in terms of films, events and programming. The new projection system is entirely digital with 4K technology and 3-D capability, making it possible to show a greater range of content than ever before, including live satellite feeds and Blu-ray. Additionally, OMSI was the first museum in North America—and the first science center in the world—to feature the state-of-the-art Dolby Atmos surround sound system, including five 4-way behind-the-screen Klipsch speakers mounted in a floor to ceiling baffle wall, 36 surround speakers and 20 subwoofers totaling 29,000w of digital sound. The screen itself is four-stories tall, 65 feet wide and offers stadium seating for 300 people.

Call 503.797.4000 or visit omsi.edu/empirical-theater to learn more and see movie listings.

Empirical Components

- Four-story tall screen
- 300 seats
- Stadium seating
- 4K projecting technology
- 3D capability
- Dolby Atmos surround sound

USS Blueback Submarine

The USS Blueback (SS 581) is one of the most modern U.S. submarines on public display anywhere in the country. She was the last fast-attack, diesel-powered sub built by the U.S. Navy. At the time of her launch in 1959, she was the last non-nuclear powered sub built by the Navy, and the last to be decommissioned after serving her country for 31 years.

The ship was decommissioned in October 1990. It was opened to the public in May 1994 at OMSI, and is on permanent display at OMSI's dock on the east side of the Willamette River.

Visitors can climb aboard the sub and experience what life was like for the 85 men who lived and worked on the boat. Tours lasting 40 minutes occur throughout the day, and include a behind the scenes look at how a submarine dives, produces its own electricity and fresh water, and stays submerged for months at a time. Highlights of the tour include a look at the engine room, the radio room, the control room and attack center, the crew quarters, and the escape and torpedo-loading trunk.

A more technical tour of the sub takes place on the first Sunday of every month. The purpose of the two-hour "Guided Tech Tour," guided by an ex-submariner, is to give visitors a comprehensive technical look into the workings of the submarine.

Kids can also spend the night onboard the sub, as part of OMSI's camp-in program. Students from elementary through middle school sleep in the crews' bunks, after they explore the control room, peer through a periscope, check out the engine room and set a course to carry out a top-secret mission.

The Blueback also features a volunteer HAM radio station (W7SUB) operated by retired Navy veterans. They communicate with other HAM radio operators throughout the world.

OMSI hosts two memorials for submariners on eternal patrol. One is a permanent memorial plaque for submarine veterans of WWII and is located at the entrance to the ramp leading to the dock. The other is the propeller (screw) from the Blueback, surrounded by 67 bricks, each engraved with the name and date of a lost U.S. submarine. It is located on the river walkway in front of the museum.

Harry C. Kendall Planetarium

OMSI's Harry C. Kendall Planetarium, a 200-seat, 52-foot domed theater, is the largest and most technologically advanced public planetarium in the Pacific Northwest. The planetarium serves as the cornerstone of numerous astronomy events each year, including occasional public broadcasts of NASA events.

OMSI's planetarium also uses the innovative Digistar 3 projection system. Digistar 3 is an all-digital system that combines star projection, full-motion color video, digital surround sound and the ability to interact with the audience. Digistar 3 provides the most authentic view available of the night sky from Earth, along with a complete view of our solar neighborhood and real data representing the state of the universe as we know it today. The system includes a library of real-time 3D astronomy models (planets, moons, comets, asteroids, and deep space objects), as well as a library of full-dome video astronomy sequences, to create a more realistic and exciting planetarium experience. Six high definition video projectors immerse the audience in one full video scene covering the full 360-degree, 52-foot wide dome. The system "stitches" or overlaps the projectors' digital images together at the edges, creating a seamless environment.

The planetarium's advanced technology enables our talented in-house production team to create shows on a major scale, and lets viewers experience more creative and educational astronomy and laser light shows than ever before. Take a seat in the Harry C. Kendall Planetarium and enter the fascinating world of multimedia entertainment!

Call 503.797.4610 or 503.797.4646 for astronomy or laser light show information. The Harry C. Kendall Planetarium schedule can be found at <http://omsi.edu>.

Planetarium Components

- 200 seats
- 52-foot dome
- Concentric seating
- Digistar 3 star projection system

OMSI Camps & Classes

Camps

OMSI offers the most extensive, longest running, and in-depth summer science camps program in the Northwest. OMSI science camps take place in a number of venues including State and National Parks, private camps, as well as backcountry wilderness areas throughout Oregon, Washington and California. OMSI Science Camps are the perfect way to develop skills and enthusiasm while instilling curiosity and respect for the natural world. The residential camps are owned or operated by OMSI and include Camp Kiwanilong, a coastal camp near Warrenton, Ore.; Hancock Field Station, located in the John Day Fossil Beds National Monument near Fossil, Ore.; Wolf Creek Educational Center, in the Redwood National and State Park in Northern California and San Juan Island National Historic Park on San Juan Island, Wash.

Camps are offered for youth grades 2-12, as well as adults and families. Camps run from the middle of June through August and generally last one week. Campers are immersed in a positive and wholesome environment where self-esteem, confidence, teamwork and friendships develop naturally, and adventure

and activity are balanced with quiet and reflective moments.

Camps are science-oriented with hands-on activities designed to be active, fun and educational. Campers can sign up for naturalist, adventure, and/or research camps. Campers become explorers, learn about marine biology, or take a rafting trip along the Deschutes River. The safety and success of each participant is taken to heart by a caring, professional staff of outdoor and science educators and all programs maintain a ratio of one adult for every five to six participants.

Classes

OMSI also offers outstanding summer science classes for youth. With the widest variety of science topics offered compared to other programs in the Northwest, youths aged 4-14 can take part in sequential, in-depth study in one or more of their favorite fields of science. OMSI offers a high-caliber staff as all instructors are Oregon State certified teachers and/or have extensive experience working with children. In OMSI Science classes, young scientists investigate scientific phenomena using a hands-on approach. They design and create their own inventions and experiments, interpret data, control variables, present conclusions and develop new thinking strategies while they gain lifelong learning skills and attitudes. Week-long summer classes are offered from mid-June to late August for children ages 4-14. Classes run all day and are geared towards each age group. Classes are held at OMSI, PCC at Water Ave and area schools.

Camp-Ins

OMSI offers “camp-ins”, in which participants can spend a night at the museum. Camp-Ins are a great idea for schools, clubs, church, scout, or youth groups of any size. At the Museum Camp-In, overnight visitors have full access to the entire museum, enjoy a film in the Empirical Theater, tour the submarine, engage in hands-on science activities, enjoy dinner, an evening snack and a continental breakfast, and participate in fun, action-packed activities. Museum Camp-Ins are geared toward either elementary or middle school students.

In Submarine Camp-Ins, students from grades 3-12 sleep aboard the USS Blueback submarine, where they explore the control room, peer through a periscope, check out the engine room and set a course to carry out a top-secret mission.

Museum Camp-Ins typically run Wednesday and Thursday nights in the spring, and Submarine Camp-Ins typically run Friday and Saturday nights during the school year. For more information, call 503.797.4661 or visit omsi.edu.