

## Liberty Science Center: Reinventing the Science Museum

From its unique approach to engaging people in real science, to its goal of positively influencing communities to take action to improve our world, the Liberty Science Center in Jersey City has been re-invented to enhance educational travel and inspire student groups in scientific literacy and understanding.

Science museums first appeared in the early 1800s, with a focus on collecting, researching, and presenting artifacts in an attempt to understand the past. In the 1960s, science museums sought to entertain and engage their audiences – increasing scientific literacy and understanding. Today, many science centers are focused solely on interactivity. The newly reinvented Liberty Science Center has placed its efforts on encouraging actual science activism, acting as a resource and catalyst to advance the realm of science, technology, and society.

Enhanced by its historic and cosmopolitan location, which overlooks Ellis Island and the Statue of Liberty, the Liberty Science Center strives to inspire student tours in understanding the continuing connection between scientific advances and how they improve the human condition.

For instance, the center's "Live From...Robotic Surgery" program uses live teleconferencing to take students into the O.R. where they interact directly with surgeons and witness how the advances of science and technology benefit humans. Program offerings include topics on cardiology, neurosurgery, and kidney transplant. Other programs include lab workshops in a state-of-the-art laboratory where students embark on an interactive learning experience led by a knowledgeable science educator.

As students explore the new Liberty Science Center, they encounter "Skyscraper!", an unprecedented look at the planning, design, and technology of these amazing structures. Whether walking a steel girder high above the exhibit floor, facing down jet-powered hurricane force winds to test a building design, or taking a quiet moment to reflect on the destruction of the World Trade Center, "Skyscraper!" leaves students with a new appreciation and altered view of the impressive skyline that surrounds the center.

"Infection Connection" describes how the choices we make on a daily basis contribute to the rise and fall of infectious diseases. In this exhibit, students explore interactions between humans and microbes, learn about emerging diseases, and see how science develops tools and technologies to prevent and treat infections. Student tours can even conduct microbiology and epidemiology experiments in the center's own laboratory.

While most of the exhibits in the center are brand new, students can still see some familiar favorites from the earlier days in "Wonder Why: Observe, Imagine, Create." Exhibits highlights include the fossil-studded Rock Climbing Wall, observing the attributes of air at the Bernoulli Blower, or creating a masterpiece in the Digital Darkroom.

Science comes to life in demonstrations offered live in the center's exhibition galleries. Student group travelers have the opportunity to participate and ask questions of a science educator on topics that correlate with the exhibits. For instance, students learn how to be an amateur surveyor using actual surveying equipment or learn the steps required to create a sterile environment in the operating room while performing live surgery on a (vegetative) patient. Or, they may experience first hand how lasers work and discover some of the ways lasers are used in daily life.

In the Liberty Science Center IMAX Dome Theater, student tours journey into ancient tombs or observe the surface of Mars during their scheduled film showings. In the Digital 3D Theater, the story of NASA's Solar Terrestrial Relations Observatory mission unfolds, told through the eyes of key NASA participants. The film features the first stunning 3D images ever captured of the sun and explains the vital knowledge the science community will gain from the mission.

The Liberty Science Center offers a variety of educational programs based on age and interest level. Some of the more popular choices include lab workshops, which are held in a state-of-the-art laboratory, where students embark on learning experiences, ranging from meteorology to New Jersey wildlife, with a science educator. Enhanced Experiences allows groups to choose an onsite experience and dig deeper into one of the center's new exhibitions, or pick an outdoor experience and learn about the Hudson River estuary.

## About the Author

[Travel Adventures](#) Travel Adventures is a student tour provider staffed by educators who understand the needs of teachers. It has served over one half million students since 1987 and its mission is to "empower teachers to create change by expanding the classroom to the world."

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