

TITANIC

THE ARTIFACT EXHIBITION

83 Real *Titanic* Artifacts
Countless Stories
Unforgettable Lessons



FIELD TRIP GUIDE

Oct. 12, 2023 - April 15, 2024



4801 Dreher Trail North,
West Palm Beach, FL 33405



Fellow Educators,

Thank you for your interest in the Cox Science Center and Aquarium (CSCA). We look forward to meeting with you and your classes while you explore our exciting new exhibit, Titanic: The Artifact Exhibition!

This Field Trip Guide is designed to enhance your Science Center experience by helping you and your students prepare for your visit. This guide will answer questions such as: how long you can expect to spend at the Science Center and where you can eat your lunch. As you know, by preparing students in advance for their trip, they will better focus on the science content. Additionally, this guide includes some quick and fun activities to further enhance the educational experiences offered by the exhibit.

Have additional questions? Please call our Group Sales Coordinator at (561) 832-2026. It is our sincere hope that your experience embodies our mission to "Open Every Mind to Science." We'll see you at the Science Center!

Sincerely,

The Education Team

Cox Science Center and Aquarium



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Pricing and Policies

Pricing

Pricing for groups scheduled in advance

Self-guided visit admission per student.....	\$11
Visit plus an additional demo/planetarium show per student.....	\$16
Visit plus a laboratory program per student.....	\$17-\$23

*One chaperone is required per 10 students at \$8 per chaperone up to a maximum of one chaperone per 5 students. Chaperone admissions must be paid as part of the group booking; they will not be allowed to pay separately.

Policies

- Reservations must be made at least 14 days in advance.
- A 20% deposit is required 14 days before your visit.
- Final payment must be made by the day of your scheduled visit.
- If final payment has not been received by the day of your visit, reservations are subject to cancellation. NO REFUNDS WILL BE GRANTED.
- On the day of your scheduled visit, check in your group at the Front Desk under your group/contact name. Additional tickets may be purchased at the group rate on the day of your scheduled visit, if space is available.
- Increase in headcount should be called in as soon as possible to ensure availability.
- Acceptable forms of payment are check, money order, or credit card (Visa and Master Card).
- Please make checks payable to the *Cox Science Center and Aquarium* and mail to:

Cox Science Center and Aquarium

Attention: Group Sales

4801 Dreher Trail North

West Palm Beach, FL 33405

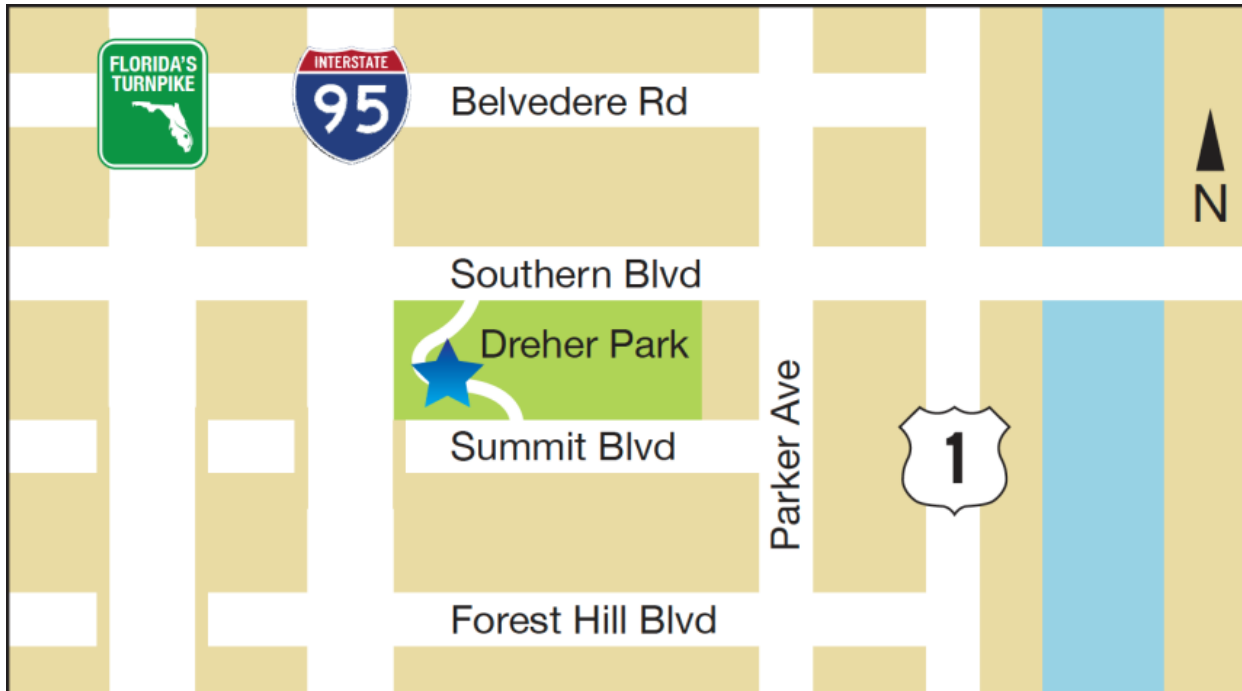
- Surcharges may apply for special event days and holidays.
- Science center memberships, coupons and other discounts are not applicable with school group rates.
- Teacher Members receive \$25.00 off first program booked only

Directions and Map

The Cox Science Center and Aquarium is located at:

4801 Dreher Trail North,
West Palm Beach, FL 33405.

Phone: (561) 832-1988



From the Florida Turnpike:

Take the Southern Boulevard exit 97 east, and continue just past I-95. Make a right into Dreher Park. Follow Dreher Trail to the Cox Science Center.

From I-95, heading south:

Take exit 68, Southern Boulevard and head east. Immediately over the I-95 bridge, make a right into Dreher Park. Follow Dreher Trail to the Cox Science Center.

From I-95, heading north:

Take exit 68, Forest Hill Boulevard east to Parker Avenue. Turn left on Parker Avenue (north) to Summit Boulevard. Turn right on Summit (west). At the first light (Dreher Trail North), turn right and continue around to the Cox Science Center.

Science Center Manners

PLEASE REVIEW THESE GUIDELINES WITH YOUR STUDENTS BEFORE YOU ARRIVE AT THE SCIENCE CENTER.

- Please walk, do not run, while in the Science Center. This is for your safety, as well as the safety of others.
- Please do not touch the glass on any exhibits, including the aquarium.
- Please enjoy yourselves and the hands-on exhibits, but leave them the way you found them.
- Please keep eating and drinking to the patio and picnic areas outdoors.
- Please have students remain with their chaperone at all times.
- Chaperones, please refrain from using your phones while supervising students at the Science Center.
- Violation of the rules could result in your group being asked to leave the Science Center.
- No refunds will be given.

Science Center Store Rules

- Students must be accompanied by a chaperone while in the gift shop. Please do not allow more than 5 children per chaperone in the store at one time.
- All sales are final, so please choose carefully.

What to Do at the Science Center

Arrival

Welcome! Once you arrive at the Science Center, have students either remain on the bus or line up on the patio space leading up to the front doors. Have your group leader check in at the front desk and get directions on where to go first. One of our CSCA staff members will welcome and orient your group as a whole.

Programs

Favorite programs such as planetarium shows, labs, and demonstrations can be scheduled for a small fee to be added in with your field trip. **Call (561) 832-2026 in advance to schedule.**

Lunch

Picnic tables are available on the Science Trail or you can eat within Dreher Park, surrounding the Science Center. Snacks are available for purchase at the snack bar located in the main exhibit hall.

Exhibits

There are many exciting exhibits to explore at the CSCA:

Aquariums of the Atlantic

See marine life from around the world in over 10,000 gallons of salt and fresh water aquariums. A living coral reef, sharks, eels, the invasive lion fish and a "touch tank" create this wonderful undersea exhibit hall.

Travel through Florida's diverse ecosystems of Everglades, Coral Reefs, Gulf Stream, and Open Ocean, home to the most beautiful native fish such as queen angels, lookdowns, moray eels, stingrays, seahorses and many more.

The Hidden World of the Everglades

Experience the Florida Everglades ecosystem and listen to sounds of Florida's wildlife in their natural habitat in this interactive exhibit about America's only sub-tropical wilderness.

River of Grass

Find out where our water comes from as you follow a drop of water from the Everglades to your faucet in this interactive display.

Florida Conservation Station

This learning station brings to life the immense variety of life in Florida and the complex relationships among living things. Visitors become real world biologists at these learning stations that include hands-on experiments and research activities.

Frozen Shadows

Lights, Action! 'Freeze' your shadow on the wall while you experience the effects of phosphorescence.

Marvin DeKelboum Planetarium

Palm Beach County's only public planetarium features a full-dome, newly renovated digital projection system. Sit back and be transported through the Universe with daily star shows, interactive astronomy presentations and other immersive science adventures. It's only \$5 more per adult/child visitor to book as a group.

Discovery Center Powered by PNC Grow Up Great

Children 6 years and younger can play and discover in their very own space! The Center's features include a giant 16 x 5-foot water table, a wall-sized Lite Brite play area, lounge area for parents, story time area with bookshelves, a dress-up area and more.

Nano Exhibit

Nano is an interactive exhibition that engages family audiences in nanoscale science, engineering, and technology. Visitors will be able to build a giant model of a carbon nanotube, explore progressively smaller magnetic materials, and explore the relative effects of static electricity and gravity using the Static vs. Gravity discs.

Hands and Minds on Science

Explore the basic principles of science with hands-on displays representing the states of matter, including solid, liquid, gas, and plasma displays. Continue through the gallery for more basic principles of electricity revealed through conversion machines and Jacob's Ladder.

Out of This World

Part of the Ambassadors of Space Exploration, the Science Center was honored by Apollo 14 Astronaut Dr. Edgar Mitchell with a long-term loan of an authentic Moon rock collected during the Fra Mauro expedition. This exhibit also features a Mars rock found in Nigeria in 1962, a 232 pound meteorite.

Mitchell was the Lunar Module Pilot on NASA's 3rd Moon expedition where Mitchell became the 6th man to walk on the Moon. Authentic mission footage accompanies this rare display.

Brain Teasers

Exercise your mind with puzzling challenges for all ages!

Hurricane Simulator

Have you ever experienced hurricane force winds? In our Discovery Hall, dial up the winds of a Category 1 Hurricane and see the 78 mph wind make your skin crawl! Visitors can also learn how to better protect their lives and property, and what to do once the storm has passed. The booth uses video, audio and high wind speed to make you feel like you are right in the storm!

Science On A Sphere

Science on a Sphere (SOS) is a room sized, global display system that uses computers and video projectors to display planetary data onto a six foot diameter sphere, analogous to a giant animated globe. Researchers at NOAA developed Science on a Sphere as an educational tool to help illustrate Earth system science to people of all ages.

Journey Through the Human Brain

The Cox Science Center in collaboration with the FAU Brain Institute presents the world's most advanced neuroscience exhibit which will inspire a new generation of scientists, technologists, and medical professionals. Journey Through the Human Brain features the latest research and innovations, with high-tech displays, immersive experiences, and state-of-the-art equipment. It takes a bottom-up approach to telling the story of the human brain, from the molecular level to the integrated circuitry that reveals how the brain informs our senses, creates our thoughts and emotions, and how it has evolved into the most complex structure in the universe. There is something for all ages in this permanent exhibit.

Fisher Family Science Trail

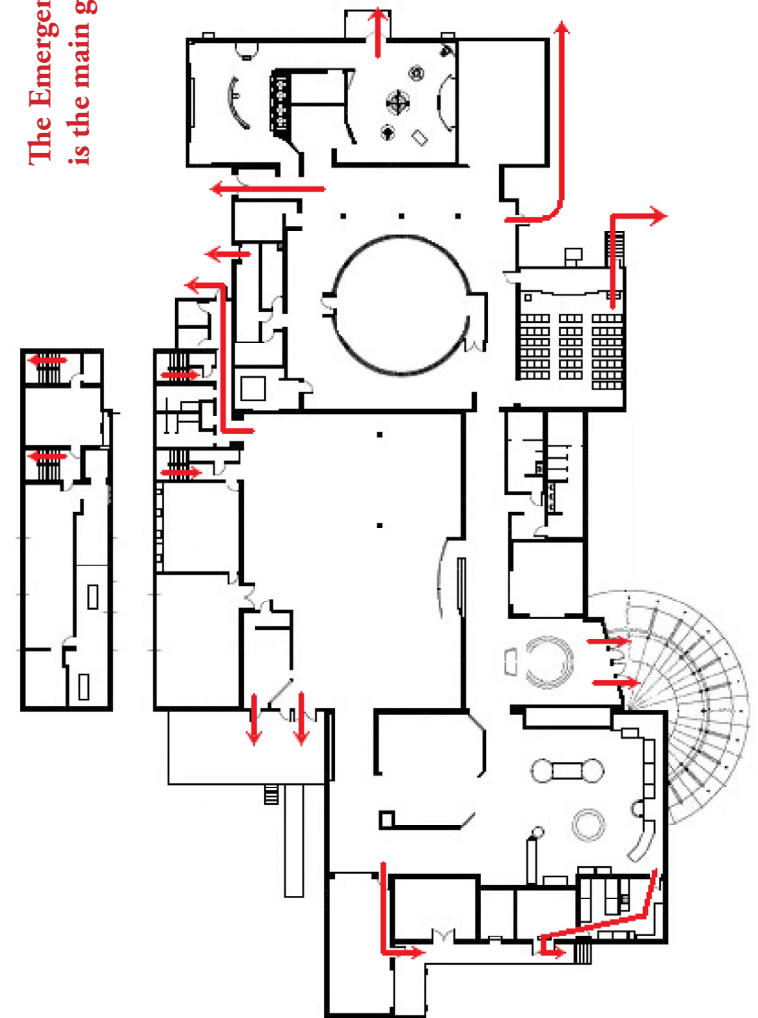
Enjoy the outdoors while continuing your science exploration! The upgraded quarter-mile trail connects 15 new exhibits, including a Physics Forest, FPL *SolarScape*, splash pad, gem panning station, shark tooth dig pit, a dinosaur walk, picnic areas and much more! **School/group reservations may not use the splash pad*

CHAPERONE RESPONSIBILITIES

Please allow only 5-10 students to enter the Titanic exhibit area at a time.

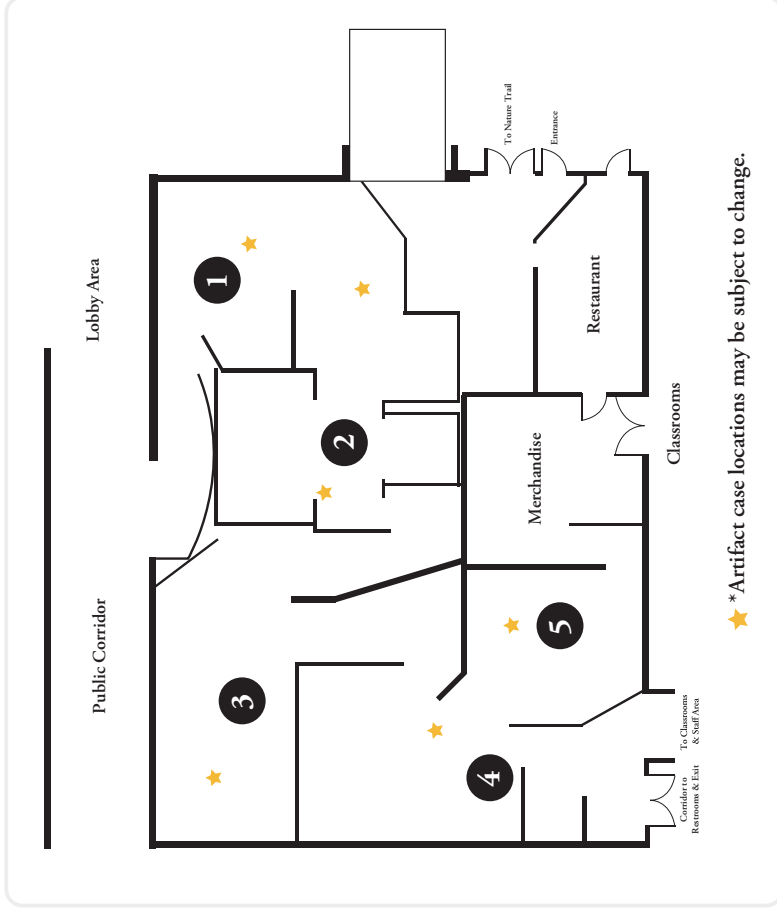
- Top priority: Stay with your assigned group of students throughout your visit. Monitor your students and keep them focused.
- Stress the importance of respecting the museum staff and fellow visitors.
- Please reinforce basic rules of museum etiquette.
 - Keep voices low.
 - Do not gather around and/or block entrances or exits to the galleries.
 - Do not lean against walls.
 - Walk, do not run.
- Students should not lean on the glass cases or walls to write notes. Students should use a notebook or clipboard for notetaking.
- Encourage students to ask questions and seek clarification.
- Please supervise your students in the retail area and in the restrooms.
- Continue to monitor students to ensure respectful behavior in each of the museum galleries and around the artifacts.
- Prompt students with questions to encourage exhibition engagement.

EMERGENCY EXIT PLAN



GALLERY GUIDE MAP

Your *Titanic* journey today consists of five galleries. Each gallery has an artifact to highlight with your class and links via QR code to a lesson plan from within the *Titanic* Teachers Guide.



1 CONSTRUCTION GALLERY

2 PASSENGER GALLERY (CABINS)

3 PASSENGER GALLERY (PERSONAL STORIES)

4 ICEBERG GALLERY

5 MEMORIAL GALLERY

1 CONSTRUCTION GALLERY

Learn about the conception and design of the Olympic Class liners, including RMS *Olympic*, *Titanic*, and *Britannic*. Understand *Titanic*'s construction at Harland & Wolff Shipyard in Belfast, Ireland (present day Northern Ireland). Meet key leaders involved with *Titanic*, view photographs of the workers that built the ship, and see tools and pieces of 1912's largest liner.

★ **Artifact stop:** Leather bag with tool handles (Chemicals naturally found in the tanning process of leathers slow the decay from microorganisms on the ocean floor, thus allowing leather bags and their contents to be more well-preserved.) Rivets (3 million of these were used to hold *Titanic*'s steel plates together.)

Reflective Questions:

- What would it have been like to work in the shipyard that built *Titanic*?
- Would you have preferred to be a worker in the shipyard who put in the rivets or be a supervisor like managing director Thomas Andrews? Why?

2 PASSENGER GALLERY (CABINS)

Each class on *Titanic* experienced their own definition of luxury. Discover re-created cabins of both first and third class. Note the differences in luxury for each class through size, cabin sharing, décor, and even the artifacts themselves.

★ **Artifact stop:** Third-class mug (Having three nutritious meals a day would have been a luxury for most third-class passengers.) First-class decanter (The fine crystal with its delicate cuts reflected light from the dining room windows, adding to the ambience.) Second-class dining chair (Due to quality and style, many second-class passengers thought they had accidentally entered the first class dining room.)

Reflective Questions:

- What does luxury mean? (Great comfort or very fancy, over-the-top living.)
- Compare and contrast the “luxuries” of each of the three classes onboard *Titanic*.

3 PASSENGER GALLERY (PERSONAL STORIES)

With 2,208 souls on board--and 83 artifacts displayed in this Exhibition--*Titanic* has numerous stories to share. Bring to light some of these unforgettable accounts of why people traveled, their hopes and dreams, and the overall impact *Titanic* had on them and their families. Honor their legacies by learning their stories.

THINKING ABOUT TITANIC

★ **Artifact stop:** Dutch souvenir (Demonstrating personal items people packed.) \$5 US Silver Certificate (Silver certificate found inside a leather bag, silver certificates were often used since US states at this time had their own individual bills.)

Reflective Questions:

- Based on the class of your boarding card passenger, what are at least two artifacts that you could have packed if you were onboard *Titanic*?
- Which passenger story and/or artifact do you feel best tells the story of *Titanic*? Why?

4

ICEBERG GALLERY

Place your hand on the iceberg and experience the extreme chill of the North Atlantic. Discover why the 28°F water did not freeze. Understand the fateful events of April 14-15, 1912, including reading some first-hand accounts from survivors.

★ **Artifact stop:** Passenger shoe (Leather men's right shoe, well-preserved due to its leather tannins.) Logometer (A mechanical device that measured the nautical miles a ship traveled each day.) Coal (Only artifact recovered from the ocean floor available for sale; proceeds go to help with conservation of *Titanic* artifacts.)

Reflective Questions:

- What is at least one question you would like to ask a *Titanic* survivor?
- How would knowing this answer help you better understand *Titanic*?

5

MEMORIAL GALLERY

Learn the fate of your boarding card passenger. Read about the worldwide impact of *Titanic* both immediately and throughout the past century. Discover some additional passenger stories brought to light after close examination of the artifacts.

★ **Artifact stop:** Adolphe Saalfeld's perfume vials (A perfume maker from England; 62 of his 65 delicate perfume vials were recovered from the ocean floor.)

Reflective Questions:

- What are at least three things that you learned about *Titanic*?
- What is your favorite artifact you saw today in the Exhibition? Why? What does it make you think about?
- How does seeing this Exhibition add to your learning about the *Titanic*?

BEFORE THE EXHIBIT

1. What do you know about *Titanic*? (Movie, construction, life onboard, passengers, myths, wreck site, artifact conservation, modern cruising)
2. Where have you learned this information about *Titanic*? (Primary vs. secondary sources)
3. What is an artifact? (An object important to history and/or culture.)

DURING THE EXHIBIT

1. As you walk through the Exhibition, how is the story of *Titanic* organized? (Chronological order of *Titanic*'s building, sailing, and sinking)
2. Why is it important that people don't use flash photography in the Exhibition? (Conservation of the artifacts)
3. How do the labels on each of the artifacts help tell the story of *Titanic*? (Organization/cataloging/stewardship/care of each item)

AFTER THE EXHIBIT

1. What are at least three *Titanic* questions you have based on today's visit? Where could you look to answer these questions?
2. An Irish philosopher once said, "We are all passengers on *Titanic*." After visiting today, do you agree or disagree with this statement? Why?
3. If you could choose to be any passenger, officer, or crew member, who would you choose to be if boarding *Titanic*? Why?

FREQUENTLY ASKED QUESTIONS

What is a submersible?

A submersible is an underwater vehicle used for deep-sea research, transported and supported by a larger ship or platform, such as the *Nautilus* and *MIR*. It accommodates three people—a pilot, a co-pilot, and an observer—who each have a 1-foot thick plastic porthole between them and the depths. With a 110-foot tether, submersibles can deploy and operate a remotely operated vehicle, or ROV, to record images inside the wreck.

How long does it take to reach *Titanic*?

It takes over two and a half hours to reach the *Titanic* wreck site. Each dive lasts about 12 to 15 hours with an additional two hours to ascend to the surface.

How are these artifacts recovered from *Titanic*?

Submersibles recover artifacts from the ocean floor by using mechanical arms to scoop and grasp objects. These objects are then either collected in sampling baskets or placed in lifting baskets and brought back to the larger ship.

How are the artifacts conserved?

Conservation begins the moment the artifacts are recovered.

Artifacts are cleaned of mud and dirt and placed in foam-lined tubs of water.

Artifacts stay submerged in water while salts are leached out from the materials in a process called desalination. Electrolysis is also used to remove salts from some metal artifacts.

Once the artifacts are no longer leaching salt, they are dried out. Chemical and mechanical treatments are used to remove agents of deterioration, such as fungus and rust.

Protective wax coatings can be applied to metals. Some sensitive materials, such as leather, can be treated with chemicals to keep them from becoming brittle or deteriorating.

Conserved artifacts are carefully monitored and maintained in a controlled environment with stable temperature, humidity, and light levels by trained professionals to keep the artifacts safe for the future.

FOR MORE INFORMATION AND
RESOURCES SCAN HERE

