

Addressing the Next Generation Science Standards (NGSS)



Mote Science Education Aquarium FL Gulf Coast

Tracking Sharks Activity Mote Marine Laboratory

Classification Study Florida Gulf Coast

Eckerd College St. Petersburg, FL

DAY 1:

Arrival and transfer to **Mote Marine Laboratory**, Sarasota. Mote is a world renown voice for ocean conservation, with 45 Ph D research staff members and 37 national & international research locations throughout our planet.

Experience **Mote Science Education Aquarium**, Florida's new 1 million plus gallons aquarium, featuring a stunning array of sharks, Atlantic & Pacific coral reefs species, manatees, sea turtles, otters, and a myriad of other wildlife!

Participate in a classification study of fish, animals, and plants in a closeup comparison of biotic factors (living things, i.e. plants and animals) vs abiotic factors (non-living components, i.e. soil and water) that make up ecosystems.

Experience one of the Mote facilitated hands-on lab workshops....Ocean Technology Lab, Marine Ecology Lab, or the Biomedical Lab.... followed by an introduction to Mote's "4" Sea Workforce Labs....Aquaculture Lab, Conservation Lab, Live Coral Lab, and the Veterinary Clinic & Diagnostic Lab....introducing students to the technologies used by Mote scientists as a way of understanding and interpreting data.

Lunch will be served in Mote's Science Education Aquarium dining area.

Transfer to **Eckerd College**, St. Petersburg. Eckerd College is ranked No. 1 in Florida and No. 5 in the USA for undergraduate Marine Science, and one of the top ranked colleges in the USA for Environmental Studies.

Welcome to campus for an orientation to academic and college life, as well as to the admission process. Eckerd's presentation will focus on the Marine Biology & Natural Science programs and share more about the prerequisites that apply to most Marine Science, Biochemistry, Biology, and Environmental Studies degrees leading to related career fields in healthcare, conservation and research.

Participate in a personal tour of the campus instructional and lab facilities, hosted by Eckerd College student guides and staff.... including degree concentrations in in Animal Studies, Biology, Biochemistry, Marine Science, and Environmental Studies.

Panel presentation by college students talking about why and how they selected their majors, while sharing their career aspirations...followed by a question and answer session.

Dinner with campus students in the **Eckerd College** main cafeteria.

Transfer to your hotel to check-in and to be briefed on your next day of activities, followed by time to relax, and enjoy the company of your friends!



Eckerd College students engaged in field and lab research activities.



Kennedy Space Center

NASA Behind-the-Scenes

An Intro to Aerospace Careers Kennedy Space Center

Artemis Crew Capsule Design Group Competition

DAY 2:

Breakfast buffet at hotel, followed by transfer to **Kennedy Space Center**, Cape Canaveral. Kennedy Space Center is NASA's primary launch site for human spaceflight and the launch pad for many historic missions.

The day will begin with a guided introduction and closeup viewing of the historic Space Shuttle Atlantis that flew to space 33 times and traveled 126 million miles, followed by an opportunity to interact with 60+ exhibits and simulators about living and working in space.

Participate in a group competition activity in the Center for Space Education classroom, competing to build NASA's next crew module that will keep astronauts seated and secured through a series of drop tests. Materials provided. Prizes awarded!

Experience a private behind-the-scenes **NASA** guided bus tour involving several stops to capture once-in-a-lifetime photo opportunities of spaceflight icons such as the Vehicle Assembly Building (the only building to assemble a rocket that carried humans to the surface of another world) and tour the launch pads.

Lunch in the **Moon Rocket Cafe** next to the Apollo/Saturn V rocket...the largest rocket ever flown, and replica of the Apollo 11 rocket that landed on the moon with Neil Armstrong and Buzz Aldrin 56 years ago.

Attend an in-person veteran astronaut briefing and hear stories straight from the source, followed by a question and answer session.

Experience **Kennedy Space Center's** new multi-million dollar Deep Space Launch complex, including a private briefing and introduction to the current cutting-edge innovations leading to NASA's planned Artemis mission that will involve the first woman to land on the moon....to be followed by boarding an immersive ride for an unforgettable simulated journey to Mars and back!

Transfer to a Space Coast restaurant for dinner and relaxation.

Transfer back to hotel meeting room to be briefed on your next day activities, followed by time to relax and enjoy the company of your friends.



Future Rocket Scientists!

Space Station Replica

Vehicle Assembly Building

Simulated Liftoff Experience! Deep Space Launch Complex



3D Modeling Activity College of Engineering

Drones Briefing Embry-Riddle Research Park

Engineering & Physics College of Arts & Sciences

Mechanical & Design Engineering Go Behind-the-Scenes Daytona International Speedway

DAY 3:

Breakfast buffet at hotel, followed by transfer to **Embry-Riddle Aeronautical University**, Daytona Beach. Embry-Riddle earned 9 top 5 honors, including for Engineering and overall quality, in the latest U.S. News & World Report.

Campus welcoming and orientation to college life at an Engineering and Technology institution "case study" and learn about the prerequisites that apply to many STEM degrees leading to related career fields in aerospace, aviation, engineering and technology industries.

Participate in a personal campus tour hosted by faculty and staff of instructional and lab facilities for such concentrations as Applied Science, Aviation, Business, Computer Science, Engineering, Cybersecurity, and Aeronautics.

Lunch with Embry-Riddle students in the Boundless Dining Hall.

Meet with grad students in the university's research center as they present and demonstrate their lab experiment projects involving the future of space and drone technology, flying cars, and electric planes.

Transfer to **Daytona International Speedway** to participate in a behind-the-scenes tour of the 101,500 seat stadium (home of the Daytona 500, the most prestigious race in NASCAR) and learn how Mechanical and Design Engineering put the 'engine' in 'engineer', building the world's fastest vehicles and most powerful generators.

Transfer back to **Embry-Riddle Aeronautical University** for dinner with Embry-Riddle students in the Boundless Dining Hall.

Transfer to your hotel meeting room to summarize the results of your past 3 days and to be briefed on your next day activities, followed by time to pack in preparation for departure following your last day of activities!



Business Degree Orientation College of Business

Electric Plane Experiment Embry-Riddle Research Park

Aviation Control Tower Experience College of Aviation

Embry-Riddle Campus Observatory College of Arts & Sciences



Kayaking Adventure New Smyrna Beach Oyster Reef Restoration Marine Discovery Center Water Quality Testing Florida Space Coast

Pontoon Boat Excursion Indian River Lagoon

DAY 4:

Breakfast buffet at hotel, followed by transfer to the **Marine Discovery Center**, New Smyrna Beach. MDC is known for its dedication to educating and engaging the public about the Indian River Lagoon ecosystem, considered the most biologically diverse estuary in North America.

Enjoy an "optional" kayak adventure led by a certified Florida naturalist, paddling the backwaters of the **Indian River Lagoon** for a fascinating exploration through mangroves, salt marshes, oyster reefs and more....designed for all levels of paddlers with no experience required!OR....experience a hands-on/feet-wet seining rotation activity in **MDC's campus mangrove forest** or participate in a MDC plankton microscope investigation.

Participate in a hands-on sustainable conservation workshop to recycle oyster shells back into the environment to create new habitats and restore damaged oyster reefs...protecting our environment and conservation practices.

Enjoy a catered picnic style outdoor lunch, centered around the Indian River Lagoon and surrounding coastal ecosystems.

Explore the diverse wildlife and beauty of the **Indian River Lagoon** guided pontoon boat excursion, led by a certified Florida Master Naturalist, giving you an up-close and personal look at North America's most biodiverse ecosystem, home to more than 4,000 species of plants and animals...including the Atlantic bottlenose dolphin, Florida manatee, horseshoe crabs, coastal birds, and a wide variety of fish and other important organisms.

Time to wrap up and say goodbye and transfer to the airport for your departing flight, or to board your chartered bus for home....and to **MAJOR IN THE REST OF YOUR LIFE!**

NOTE:

- All workshops and activity schedules are subject to change and will be rotated in order to accommodate all students due to workshop and activity capacity limitations.
- The 4-day/3-night expedition as described may be reduced to either a 3-day/2-night expedition or a 2-day/1-night expedition by simply choosing the 3 or 2 days that best serve the interests of you and your students. West Coast schools may opt for a 5-day/4-night expedition in order to compensate for the travel distance. Additional information and costs available upon request. www.OceansToOrbits.org/request-information
- Should your school be located within a 4 hour bus driving range of Central Florida, our chartered motorcoach(s) could depart from your school and return to your school at no additional cost per student. For those schools beyond the 4 hour driving range, we will work with you in reference to a possible surcharge, depending upon the additional drive time and number of students in your group.



BTM is one of the motorcoach companies chartered by Oceans to Orbits.

TUITION COST PER STUDENT

 2 Days/1 Night
 3 Days/2 Nights
 4 Days/3 Nights

 20-29 students:
 \$719.00
 20-29 students:
 \$979.00
 20-29 students:
 \$1,209

 30-39 students:
 \$599.00
 30-39 students:
 \$829.00
 30-39 students:
 \$1,029

 40+ students:
 \$529.00
 40+ students:
 \$739.00
 40+ students:
 \$939.00

- · Should you have less than 20 students, we will do our best to match you and your students with another school.
- Should you add 1 extra night due to due to your flight distance, add \$90.00 per student to include hotel and dinner.

WHAT'S INCLUDED IN THE COST OF TUITION:

- · Airport motorcoach transfers upon arrival and departure, Orlando International Airport.
- Lodging, Embassy Suites, Disney Springs or similar. (Students: 5 per suite, Chaperones: 2-3 per suite...2 queen beds & 1 sofa.)
- · Daily breakfast, lunch & dinner, beginning with lunch the first day and ending with lunch the last day.
- · All admissions as stated in the itinerary.
- · Daily transfers to and from all campus and field trip destinations.
- All campus and venue private sessions, instruction, and curriculum materials.
- · 24 hour services of Oceans to Orbits staff and facilitators.
- · All taxes and gratuities.
- 1 complimentary chaperone per 10 paying participants and fraction thereof.

NOTE: In addition to all of the above, EVERFI has agreed to provide Oceans to Orbits teachers and students the following free sponsored digital courseware units to ALL students (expedition participants and non-participants).

- Endeavor: STEM Career Exploration, Grades 6-9
- Building & Moving: STEM Careers, Grades 9-12
- Sustainability Foundations: Plants, Animals and Our World, Grades 5-8
- Keys to Your Future: College and Career Readiness, Grades 9-12

WHAT'S NOT INCLUDED IN THE COST OF TUITION

- Round trip air transportation to and from Orlando, FL. (Our approved Travel Coordinator would be pleased to research and book the lowest available airfare upon request.) www.OceansToOrbits.org/request-information
- Optional trip cancelation/interruption insurance and/or medical insurance.