



North Carolina, USA - www.STEMstudytours.com

Tour:

Sunshine Physics

Destination:

Orlando, Florida

Specialization:

Physics, Space Sciences, Forensics, Biology

Itinerary:

6-days / 5-nights in Florida

Sunshine Physics - Orlando			
Day	Morning	Afternoon	Evening
1	Travel to Orlando; transfer to hotel & check-in		Welcome & Safety Hotel Dinner
2	NASA's Kennedy Space Center at Cape Canaveral		Dinner at Hotel
3	Universal Studios 'Science-Behind-the-Scenes' Master Class + 2 Theme Park Hopper Pass (Islands of Adventure + Universal Studios Theme Parks)		Dinner on Own / Free Time
4	Orlando Science Center + Forensic Science Lab	Lunch, Wildlife Park & Airboat Eco-tour Master Class at Wild Florida Airboat Tours	I-Fly Master Class with 1 Jump Dinner at Hotel
5	Universal's STEAM App Master Class + 2 Theme Park Hopper Pass (Islands of Adventure + Universal Studios Theme Parks)		ICON 360 Eye Wonder Works & Pizza Party
6	Free time in Orlando	Depart for Home	



As with all sample itineraries, please be advised that this is an 'example' of a schedule and that the activities and hotels shown may be variable dependent upon dates, weather, special requests and other factors. Itineraries will be confirmed prior to travel.



STEM STUDY TOURS
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Day 1

Dinner on arrival, contingent upon arrival time

Travel to Florida arriving at in the late afternoon or early evening. After boarding your motorcoach your group will be transferred to your hotel located on International Drive.

Sample Hotel: The Rosen Inn at Pointe Orlando – The Rosen Inn at Pointe Orlando is ideally located on Orlando's famous International Drive. This hotel's superb central location provides easy access to major attractions, including Universal Studios Florida. The hotel features three attractive pool areas with beautifully landscaped gardens, and a Guest Services Desk offering day trips, transportation arrangements and attraction tickets, a gift shop, a video arcade, a full restaurant, a sports bar and a snack shop & deli. Rooms feature two queen beds, cable television, in-room coffee, hair dryers, in-room safes, microwaves and refrigerators.



After check-in, we'll get settled, have our Welcome, Safety & Orientation Meeting. Later, dinner will be at our hotel. There's plenty to do both at the hotel and in the nearby areas so if you arrive early enough and would like to plan an activity for this day, just let us know. We are happy to create a custom itinerary for you.

Day 2

Breakfast & dinner included; lunch on own

Rise and shine for a spectacular space day! Today we're heading to Cape Canaveral on Florida's eastern coast, home to NASA's Kennedy Space Center.

NASA's Kennedy Space Center - John Glenn, Neil Armstrong, Sally Ride and Jim Lovell are just a few names of the brave men and women that have launched into space from Kennedy Space Center, and now it's your turn to become a part of the space program. Your full day of exploration includes real space hardware, authentic attractions, inspiring exhibits and hands-on experiences. The incredible accomplishments of the Apollo moon program return to life in the amazing Apollo/Saturn V Center. In back-to-back IMAX® theatres, you'll feel the thrill of space exploration on five-story screens as you "float" right alongside NASA Astronauts. On guided tours into exclusive areas, you'll get a behind-the-scenes look at Kennedy Space Center's working space flight facilities. Strap in and experience interactive space flight simulators at the Astronaut Hall of Fame. Touch a real piece of Mars, see gigantic rockets, board the Space Shuttle Explorer and much more.

Your exploration of Kennedy Space Center starts with one of their world-renowned tours, where you depart the Visitor Complex to see awesome NASA facilities, including the massive launch pads, gigantic Vehicle Assembly Building, and exploring the awe-inspiring



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Apollo/Saturn V Center. There is much to do at the Visitor Complex when you return, from live action theatrical shows like Mad Mission to Mars, to the inspiring Astronaut Encounter briefing with an actual NASA Astronaut - one of the few people on Earth who have been to space. View ten-story high rockets from all eras of space exploration in the Rocket Garden, walk through a full-size Space Shuttle mock-up, see IMAX space films on gigantic five-story screens, and see an actual Gemini program capsule on display in Early Space Exploration.

IMPORTANT TRANSPORTATION NOTE – Please be aware that this day includes 10-hours of motorcoach time. As NASA is approximately a 1.5-hour drive from your hotel, the time reserved includes 3 hours of travel time plus 7-hours at NASA. If your school desires more time, we will be happy to book this for you but please be aware that motorcoach time is calculated hourly and you will be responsible for any additional fees incurred.

After our full day at Kennedy Space Center, we'll have dinner at the hotel. It might be a great night for a walk, or even pool time!

Day 3

Breakfast & dinner included; lunch on own

Good morning Orlando! After breakfast, we'll transfer to Universal Studios for a Master Class and then have the day at the parks. Wear your walking shoes! Teachers will select one of the following options:

Universal Studios' Theme Parks + 'Behind-the-Adventure' - A science and technology Tour. Students will have the opportunity to discover the science involved in creating the world's most technologically advanced theme park. Behind-the-Adventure showcases the physics, technology, horticulture and general sciences that went into designing and building this state-of-the-art theme park. The sciences come to life as your Universal guide answers such questions as:

- How is 'The Incredible Hulk' coaster launched?
- How are the special effects in 'Poseidon's Fury' accomplished?
- How is the park foliage chosen?
- What technologies are utilized to make 'The Amazing Adventures of Spider-Man' so amazing?
- How is physics used to create roller coasters?

OR Universal Studios' Special FX – a special effects program to discover the secrets of making movie magic at Universal Studios. Through this interactive tour of Universal Studios, students will learn, hands-on, about the arts and sciences used to create some of the most spectacular special effects in motion picture history and what it took to recreate those effects in some of Universal Studios' most popular attractions. Tour highlights include:

- Visit 'Revenge of the Mummy' to learn the secrets of set design and construction
- Go behind the scenes at 'Men in Black: Alien Attack' to learn how such effects as animatronics, lasers, strobe lights and fog effects are utilized to set the atmosphere for this attraction
- Experience the 'Universal Horror Make-Up Show' for an up-close look at how make-up effects are created
- Stroll through soundstages and production facilities; walk through the street of New York, San Francisco and Hollywood to learn the importance of atmosphere through set design
- Visit 'Twister... Ride It Out' and learn what it takes to recreate an F-5 tornado



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The 3-hour Master Class begins 1-hour before the theme park opens and allows for access to areas of the park unavailable to the general public. After our 3-hour guided lesson, the day is ours to have fun in two of the most incredible theme parks in America – Universal Studios and Universal’s Islands of Adventure.

Tonight, we leave dinner open to dine wherever you wish. For those groups wishing to add in a Universal Show like the Blue Man Group, tonight is a great night to have dinner at the park and then the evening show. We do need to plan for a specific time to transfer back to the hotel though, so talk to us about what you would like to see included on this evening. If you want to try a local restaurant or even add another hotel dinner, we are happy to set this up. Also, please know that **The Main Event offers bowling** and is walking distance from our hotel. Also, there’s mini-golf walkable from the hotel as well. Both make for a super fun evening!

Day 4

Breakfast, lunch & dinner included

Good morning Florida! Following breakfast, we’ll head to the Orlando Science Center for a fabulous morning of lab work.

The Orlando Science Center - a place that inspires curiosity and exploration. Truly one of the great activities in Orlando, the Science Center encourages learning in a fun way and is a must for your “things to do in Orlando” list. With four floors of exciting exhibits, amazing giant screen movies and engaging live programming, the Science Center is the perfect educational destination. Schools are automatically signed up for Forensic Lab with our Florida Physics Master Class but if you would prefer one of the other options, simply let us know and we will be happy to request a change.



Forensic Science Lab: This lab is designed to intrigue and interest your students in the field of forensic science. Discover how techniques such as chromatography, blood typing and facial composite computer software have changed the world of crime solving. See how forensic scientists use biology, physics and chemistry in the field of criminology

Advanced Chemistry Lab: Be enchanted by how temperature effects reaction rates and use inquiry-based learning to separate substances. Use the SPARK Science Learning System and PASCO probeware technology to analyze rise and fall in temperature of chemical changes. Test reactions and burn compounds to identify unknown substances.



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Advanced BIO Lab: Explore how the levels of CO₂ in a plant terrarium will change during photosynthesis and cellular respiration. Discover the different ways stimulants and depressants will affect the physiological activity in the body. Find which organelles an animal cell and a plant cell have in common with wet-mount and methylene blue stained cheek and onion cells. Determine the probability of possible combinations of alleles that can result in a generation when creating an Orlando Science Center family tree.

This afternoon we'll switch gears and head out to explore Wild Florida!

Wild Florida Airboat Tours - Located 45-minutes outside of Orlando, a visit into the Florida Everglades will be the wildest adventure you'll find in Central Florida. Experience a part of Florida that hasn't changed much from when early pioneers arrived in covered wagons in the 1800s. Climb aboard a U.S. Coast Guard certified airboat and catch a glimpse of alligators, eagles, turkeys, wild boars, roseate spoonbills, and other native creatures. Stroll through the Wildlife Park where you can see lemurs, sloths, zebras, and other animals native to South America, Africa, and Australia. Want to take a trip back in time to one of the first cattle operations in Central Florida? Hop aboard the Ranch Buggy Tour for a look at a working cattle operation that can trace its roots to the 1850s. Wild Florida is a feast for the eyes and the soul.



Educational Components: 1) Airboat Eco-Tour. Students will see a variety of animal and plant wildlife identified by airboat captains. Topics covered will include the Florida Ecosystem, native and invasive species, and interdependence attributes. 2) Alligator Presentation. Students will get an up-close look at alligators with an in-depth presentation of topics including lifecycle, diet, anatomy/physiology and behavioral aspects. 3) Wildlife Park. Students will be taken on a guided tour of the wildlife park with over 100 species of native and exotic animals including a walk through 'Hawk Swamp' to see what Florida looked like 1,000 years ago. Topics include the swamp ecosystem, endangered and threatened species, adaptations and characteristics of animals. Your package will include a 1-hour airboat tour, an alligator demonstration with photo, a BBQ lunch, a souvenir plus admission to the Wildlife Park; all with the master class educational elements as above.

Next, we're off for some physics flying!

I-Fly Indoor Skydiving & STEM Master Class - The STEM Master Class uses iFLY's unique vertical wind tunnel facility to make STEM exciting. Curriculum has been designed by STEM professionals and includes an interactive presentation based on engineering and physics, a lab activity including parachute investigation, and full training for indoor skydiving by IBA certified flight instructors. Each child will fly one-on-one with an instructor for 1 minute in the tunnel. High flights, 'rides' to the top of the tunnel and extra rides are available at an additional charge. All classes receive digital photos emailed to the Party Leader plus a class video of their flight.



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After our awesome day, we'll have a hotel dinner and then the night is ours for relaxing. Maybe a swim in the hotel pool, a game or quiz? Or even an evening stroll down International Drive!

Day 5

Breakfast included; lunch & dinner on own

Rise and shine Florida! After breakfast in the hotel, we'll board our transportation and again travel to Universal Studios. Today we'll have a 2-hour STEAM App Master Class followed by a day of fun in the parks.

Your Classroom in Motion: A STEAM App Series - Using the know-how behind Universal's top attractions, these programs help students deepen their understanding of how science, technology, engineering, the arts and mathematics are integrated in rides and attractions. Schools will select from one of the following Master Class options. **Today's Master Class is 2-hours.**



Transformers Roll Out – Students learn about the engineering principles of the 6 Degrees of Freedom and apply that knowledge to a hands-on analysis of TRANSFORMERS™: The Ride 3-D. Students then use their new skills to reconstruct the ride vehicle's motion sequences.

Hollywood Rip Ride Rock-it - A heart-pounding lesson in physical principles, Hollywood Rip Ride Rockit™ takes students inside the loops and drops of Hollywood Rip Ride Rockit™, teaching them hands-on lessons about the conservation of energy behind one of Universal Orlando's top attractions.

Mummy Dig-Site Detective - Mummy Dig-Site Detective puts your students in the middle of a strange series of events on our Revenge of the Mummy™ attraction, asking them to use their powers of scientific observation to find evidence and draw conclusions based on their perceptions of the ride environment.

Jurassic Paleobotany - Students become paleobotanists in Jurassic Paleobotany, searching Jurassic Park™ for foliage from the era of the dinosaurs and comparing their findings to fossils to make identifications. Working in



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groups, students use tablets to photograph plants and plot their locations on a map of the area, experiencing the rush of scientific discovery in the process.

Kongtrol Panel - With hands-on learning and real-life excitement, Kongtrol Panel pulls students into the world of Skull Island: Reign of Kong™, where they use engineering principles to program simulated vehicles safely around tracks of varying difficulty.

Afterwards, we're off to The Orlando Eye to take in all the sights of Orlando.

The Orlando ICON 360 - the tallest observation wheel on the East Coast. Take a moment to escape and discover the magic and natural wonder Orlando has to offer from above. Be effortlessly lifted away in a capsule of calm and serenity to see Orlando in a way you've never seen it before. The iconic 400-foot tall observation wheel provides breath-taking views of Central Florida in all directions, with sights of downtown Orlando's skyline, theme parks, lakes and lush landscape, and on a clear day, views of Cape Canaveral on the east coast. The stabilized-driven capsule gives you a really smooth experience and is the first wheel ever to use such a system in combination with a suspended 'ski lift capsule design'. It has 30 air-conditioned, fully enclosed passenger capsules, each of which can carry up to 15 persons.



This evening, we'll walk to WonderWorks for pizza and an evening of fun!

WonderWorks & The Outta Control Magic Comedy Dinner Show – Wonderworks is an amusement park for the mind, combining education and entertainment in over 100 hands-on exhibits for students of all ages. Students will feel the 65-mph hurricane force winds, be shaken by a 5.3 earthquake, play virtual sports, land the space shuttle, fly a fighter jet, lay on a bed of nails, design and ride their own roller coaster and even compete in a Laser Tag game in the world's largest Laser Tag Arena & Arcade.



Schools will also experience the “Outta Control Comedy/Magic Dinner Show” combining high-energy comedy improvisation with spectacular magic to thoroughly entertain audiences of all ages. During the show, schools will enjoy unlimited hand-tossed pizza, popcorn and soft drinks.

Day 6

Breakfast included, based on departure times

Good morning Florida! It's time to pack up and head home! Following breakfast, we'll have the morning free then will start to say goodbye to Florida as we head off for our flight home; taking memories with us that will last forever!



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SUNSHINE PHYSICS

Minimum Booking Numbers:

20 students

What's Included:

Round-trip flights with a scheduled carrier
5-nights' accommodation in Orlando
Breakfasts & dinners daily (with the exception of Day 3) starting with dinner on arrival and ending with breakfast on departure
Transportation for programmed activities & airport transfers
Admission to NASA's Kennedy Space Center & Visitor's Center
2-day Park Hopper passes to Universal Studios and Islands of Adventure Theme Parks
Universal Studios 'Science-Behind-the-Adventure' Master Class or FX Master Class
Universal Studios STEAM App Master Class (1)
WonderWorks Admission + Pizza Party at the Outta Control Comedy Dinner Show
Orlando Science Center Admission & Forensic Science Master Class
Wild Florida Airboat Ride & Alligator Master Class, Tour & Lunch
I-Fly Sky Diving Master Class Experience with 1 Jump
Admission to ICON Orlando 360
Personal Tour Ambassador
Fund-a-Forest: A tree is planted in the name of each guest
Dollar\$ For Scholars: \$2 donation in the name of each guest
24-hour emergency cover

What's Not Included:

Fully comprehensive insurance (mandatory)
Transfers to/from home airport
Transportation for activities not shown in the itinerary
Lunches in destination
Cost of visas, full or collective passports
Cost of inoculations or medication required for travel
Sightseeing / Entertainment Options not shown in Itinerary
Hotel incidental deposits & bills – meals, mini-bar items, recreation charges, purchases billed to room, etc
Any gratuities – drivers, maid service, bellman service, ambassador

As always, our staff are always available to you to answer any questions you may have regarding programming. If we may serve you in any way, please do not hesitate to contact us.



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