



# MUSEUM

PRESENTED BY SONY

FAMILY LEARNING NIGHTS

PROGRAM GUIDE

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# OVERVIEW

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## Museum Education Program Overview

The 49ers Museum presented by Sony is a two-level, 20,000 square foot space dedicated to showcasing the past, present, and future of the 49ers organization and its commitment to education and innovation. We create moments of inspiration by providing learning platforms that connect, inspire, and engage students in grades K-8 through relevant content, interactive explorations, peer collaboration, application of skills learned and student reflection. The 49ers Museum Education Program uses football as a platform for:

- Teaching content-rich lessons in STEM (Science, Technology, Engineering, and Mathematics) where families engage in finding real solutions to real-world problems
- Ingraining invaluable life skills

## Family Learning Nights Experience

We connect learning experiences to “real world” scenarios by utilizing technology and educational resources to get families excited about STEM concepts. Family Learning Nights include a wide variety of explorative lab activities that provide families with opportunities to apply analytical skills, reinforce science concepts, and bring the application of science, technology, engineering, and mathematics to life using the platform of football.

Families will:

- Inquire about their world and the game of football
- Think critically to answer relevant questions and challenges related to STEM
- Explore through reading, research, and investigation in a lab environment
- Value the learning process, achieve, and be inspired to become life-long learners



# OVERVIEW

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## Benefits of Family Learning Nights

1. Family Learning Nights create an environment where families can learn about the value of hands-on, inquiry based STEM learning and also how STEM integrates the teaching of processes, content, reading, math, and critical thinking skills.
2. Families engage in wholesome and collaborative educational activities.
3. Engaging in the opportunity of learning as a family.
4. Family Learning Nights provide a structured learning environment where families have the opportunity to explore their understanding of STEM concepts. The 49ers Museum will provide labs that are neatly organized with clear instructions and ample materials to minimize frustration and enhance the learning experience. Students will record their ideas, observations, and everything they learned during the evening. This reinforces their learning and illustrates to parents the value of the 49ers STEM education programs and its integration with other subject areas their children are learning in school.



## **PROGRAM ACTIVITIES**

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### **Rotating Age Groups (K-3/4-6/7-8)**

- Group break down: Group 1 - Grades K-3, Group 2 - Grades 4-6, Group 3 - Grades 7-8
- One (1) hour: Families will have an ample amount of time to freely explore the museum to learn about the 49ers rich past. All families can engage in various interactive exhibits that celebrates and brings to life both the history of the 49ers and their current run towards another championship
- One (1) hour STEM-based lab activity: Project-based in-depth exploration into key STEM concepts in collaborative family groupings

### **Education Center Lab Lesson Breakdown and Time Demands**

- Session Introduction: 5 minutes
- Concept Introduction: 10 minutes
- Project-Based Challenge/Activity: 20-35 minutes
- Session Conclusion: 5-10 minutes

### **Lab Instructional Value**

1. Skills are still explicitly taught. Not always focusing on whether they are correct or not – encouraging “thinking”; emphasis on the process; self-reflection
2. Integrate instruction (combine subjects and concepts) to address all subjects related to football
3. Fosters whole family involvement and exploration
4. Authentic project-based learning (parents effectively facilitate collaborative student work)
5. 21<sup>st</sup> Century life skills infused throughout the curriculum and experiences



# PROGRAM ACTIVITIES

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## Lab Themes

### Football Forces

Families will investigate the physical science present in the sport of football (forces of flight, laws of motion, inertia, friction, etc.), evidenced by successful completion of hands-on experiments, written observational records, and oral discussion/reflection. By investigating in-depth the forces involved in the game of football, students will learn about the laws of motion and energy distribution within the game, that they then will apply important physical science concepts covered in lab experiments to game-like situations.

### Engineering in Football

Families will be introduced to basic principles of engineering and explore how the engineering design process supports various aspects and developments in football—from the design of football equipment to the structural engineering of Levi's® Stadium. In this lab session, family teams dive into the engineering design process and collaboratively work together through an engineering design challenge that is directly related to the game.

### Football H2O

Water is essential to all aspects of life, from watering crops to the role water plays in our overall health. Did you know that water is vitally important to the game of football? Families will learn through hands-on explorations how water is vital to the 49ers playing field and understand how the Levi's® Stadium engineering team solved the challenge of moving water within the stadium. Through this engaging activity, participants will acknowledge the significance of water movement within the stadium, understand the importance of recycling water and the impact water makes on the field and in the game. Families will work in teams to either design and build their own irrigation system or construct a working water filtration system to purify polluted water. Families will then evaluate the results of such tests and present their findings. By the time the evening concludes, families will learn together that, directly or indirectly, water affects all facets of life, especially in sports.



## **LOGISTICS AND EVENING SCHEDULE**

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Programs occur one Friday per month from January through June. The event is held from 5:00 PM to 7:00 PM. Participating family groups will be led by museum instructors throughout the evening's activities, and all guests will wear clearly visible education program credentials to designate event participants from the general public. Our programs can accommodate up to 30 students and their parents in each grade groupings (K-3/4-6/7-8), with no more than 90 students participating per night.

### **Planning Your Visit**

To participate in Family Learning Nights, please register here or call 408.673.2048 or email museum@49ers.com.

### **Arrival & Directions to the Museum**

Parking will be available across the street from the museum.

#### **From Great America Parkway (101):**

Make a RIGHT onto Tasman

Make a LEFT on Marie P. DeBartolo Way until you come to a stop sign at Centennial. Turn left on Centennial and take the next left into Yellow Parking Lot 2

Cross Tasman on foot to the museum entrance

#### **From Lick Mill:**

Make a LEFT onto Tasman

Make a U-TURN at Convention Center

Make a LEFT on Marie P. DeBartolo Way until you come to a stop sign at Centennial. Turn left on Centennial and take the next left into Yellow Parking Lot 2

Cross Tasman on foot to the museum entrance

#### **From Great America Parkway (237):**

Make a LEFT onto Tasman

Make a LEFT on Marie P. DeBartolo Way until you come to a stop sign at Centennial. Turn left on Centennial and take the next left into Yellow Parking Lot 2

Cross Tasman on foot to the museum entrance

#### **From Lawrence Expressway:**

Make a RIGHT onto Tasman

Make a LEFT on Marie P. DeBartolo Way until you come to a stop sign at Centennial. Turn left on Centennial and take the next left into Yellow Parking Lot 2

Cross Tasman on foot to the museum entrance

#### **From Lafayette:**

Make a RIGHT onto Calle de Luna

Make a RIGHT onto Calle de Sol

Make a RIGHT onto Tasman

Make a U-TURN at Convention Center

Make a LEFT on Marie P. DeBartolo Way until you come to a stop sign at Centennial. Turn left on Centennial and take the next left into Yellow Parking Lot 2

Cross Tasman on foot to the museum entrance

# **LOGISTICS AND EVENING SCHEDULE**

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## **Check-in, Late Arrivals, Cancellation**

### **Check-in**

Museum representatives will welcome you within the museum lobby for event check-in. Museum representatives will review your itinerary and guide your group to a programming space for general program introduction and program directions.

### **Late Arrivals**

We appreciate your efforts to arrive on time. Families that arrive late may receive a condensed lesson because of scheduling limitations.

### **Cancellations**

If you need to cancel your registration, please call 408.673.2048 or email [museum@49ers.com](mailto:museum@49ers.com) as soon as possible.

### **Child Supervision**

Parents are responsible for the safety of students throughout the museum and its grounds. Children under 10 must be accompanied by an adult chaperone at all times and must stay with their group. Chaperones must be at least 21 years old.

### **Consent Form**

Parents/ guardians will need to bring a signed consent form for each Family Night and for each family member participating.

### **Guidelines for Evening Events**

- Families are expected to stay with pre-assigned groups during STEM activities
- No gum, food, or drinks are allowed in the museum
- Photography is allowed and encouraged, but please no flash photography
- No touching of any artifacts/memorabilia

All bags are subject to search upon entry and exit of the 49ers Museum.

### **Registration**

Registration for Family Learning Nights must be completed and submitted online.

### **Register Now**

Please submit one registration per family. We can accomodate **one** parent/guardian per registered child.