Environmental Sustainability Approach & Engagement
49ERS & EDUCATION

- Decades-long commitment to education ecosystem in Bay Area
- In concert with 2014 opening of Levi’s® Stadium, 49ers introduced impact and spark programming, including:
  - 49ers STEAM Education Program, which uses Levi’s® Stadium and football as a platform to:
    - Connect, inspire and engage
    - Provide interactive explorations and group collaboration
    - Make concepts of Science, Technology, Engineering, Arts and Mathematics (STEAM) relevant and exciting
STEAM PROGRAM: QUICK HITS

- Five-hour field trip model bookended with content before and after

- More than 160,000 participants served in all nine counties of the Bay Area; 60,000 annually

- Free program, incl. transportation

- Nearly 60% participants Title 1

- Levisstadium.com/education
STEAM PROGRAM: CURRICULUM OVERVIEW

Aligned to Common Core & NGSS
Project-Based Learning and 21st Century Skills Key to Pedagogy

Grades K-3
- Gearing Up for the Big Game
- Football Forces & Movement Lab
- Measure Up with Math
- Tackling Literacy

Grades 4-6
- World of Engineering & Design in Football
- **Environmental Sustainability in Levi’s® Stadium**
- Goal Line Mathematics
- Technological Advancements of the Game
- Health & Nutrition

Grades 7-8
- Game Day Forces
- Gridiron Engineering and Design Lab
- Game Communications and Technology
- Career Connections
FOCUS ON ENVIRONMENT

Environmental Sustainability in Levi’s® Stadium

Students learn about all the eco-friendly features included in the Levi’s® Stadium design and construction and the unique ways the stadium reduces its environmental impact.

Through hands-on, project-based learning, students explore renewable energy sources, learn how solar energy is harnessed and utilized at Levi’s® Stadium, as well as learn how throughout its design, the stadium was built to be a sustainable entity for years to come.

From the use of recycled materials in its construction and the unique installation of the green roof, to the integration of efficient irrigation systems that recycle valuable water, students will gain a new appreciation through interactive experiences of how structures like Levi’s Stadium®, can be designed and built with the protection of our environment in mind.
KEY CONCEPTS

• Levi’s Stadium 1st LEED Gold-certified sports venue in the world
  – Net neutral to grid via solar infrastructure
  – Responsible irrigation practices
  – Mass transit planning
  – Largest green/living roof in professional sports
    • Cooling/Farming/Solar
  – LEED concept in general

• Incredible teaching points across the board, aligned to intrigue point

• https://www.khanacademy.org/partner-content/49ers-steam
  – Environmental Sustainability Section
TURN & TALK!

- Some of the most compelling and practical lessons we teach and through which we engage kids are the most basic to introduce
  - PV system concept and simple circuit construction (walk to the solar bridge)
  - Responsible irrigation and water usage (“purple pipes” in stadium corridors)

What does your environmentally sustainable world look like? How can you simply and easily activate those things to drive practical/hands-on learning?
TURN & TALK! - DISCUSSION

• Thoughts?

• Solar energy on campus/site
  – Bring in an expert to explain how it works!

• Recycling program
  – Where does the material go? How are the systems set up?

From the complex can come the simple (LEED);
from the simple can come the complex (Blue Trash Cans)
CONTACT

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