



SCIENCE

PRE-LESSON PLAN

Lesson Title

- Science Behind the Scenes: Stadium Grounds & Player Performance

Basic Information

- Grade Level: 4–8
- Duration: 60 minutes
- Subject areas: Science (Physical & Life), Career Exploration, English Language Arts

Lesson Objectives

- Encourage students to explore how science supports real-world STEAM careers
- Promote reflection on personal interest in science-linked roles
- Introduce scientific concepts relevant to jobs featured in the video
- Build curiosity and vocabulary around landscape management and sports science

Learning Objectives

- Students will:
 - Identify scientific principles related to landscape management and sports science
 - Investigate how professionals apply science to solve practical challenges
 - Predict skills and tools used in these careers before watching the video
 - Record observations and questions to deepen engagement with the video

Vocabulary

- **Biology** – The study of living things, like plants, animals, and people.
- **Physics** – The science of motion, energy, and forces — for example, how a football travels through the air.
- **Turf Management** – The science of caring for grass and fields so they stay healthy, safe, and strong.
- **Sports Medicine** – The science of keeping athletes healthy, preventing injuries, and helping them recover.
- **Sustainability** – Taking care of resources (like water & energy) so they last for the future.

Standards Alignment

Next Generation Science Standards (NGSS)

- 5-ETS1-1 to 5-ETS1-3: Define problems, develop solutions, and improve designs

Common Core ELA Standards

- RI.4–8.1: Refer to details and examples to explain and infer
- RI.4–8.7: Interpret information presented visually, orally, or quantitatively
- W.4–8.7: Conduct short research projects using multiple sources
- SL.4–8.1: Engage effectively in collaborative discussions
- SL.4–8.4: Present claims and findings clearly

Career Technical Education (CTE) Standards

- CRP 2: Apply academic and technical skills
- CRP 5: Consider environmental, social, and economic impacts of decisions
- CRP 7: Employ valid and reliable research strategies
- CRP 10: Plan education and career paths aligned to personal goals

Lesson Components & Educator Guidance

1. Warm-Up: Connecting Science to STEAM Careers (15 min)

Kick off with this prompt or choose another you like that will get kids thinking about how Science and football/SoFi Stadium are connected.

- What do you think science has to do with maintaining the grounds at SoFi Stadium or helping players improve their performance on the field?

Solicit student responses and write them down on a white board or somewhere where the whole class can see.

Teacher Tip: If students are struggling to come up with ideas, give them a few examples to get the ball rolling. You could mention:

- Taking care of the plants that surround the stadium
- Helping keep the players healthy and ready to play
- Being environmentally conscious at the Stadium/during games

As the conversation slows down, use guiding follow-ups like those below (or others you prefer) to get students thinking more deeply about the “how” behind the science ideas they are generating:

- What scientific tools or processes might people use to do these jobs?
- How could biology, physics, or other forms of science support these roles?

2. Science in Action Activity (25–30 min)

First, pass out the [“Science in Action” worksheet](#).

Divide students into pairs and assign one half the class to explore the first role the video will introduce them to, the Landscape Manager at SoFi Stadium/Hollywood Park. Assign the second half to the other job that comes to life in the video, to the VP of Sports Medicine and Performance for the Rams.

You can have the students work individually or in pairs. As they are working, walk the room and assist students in completing the activity, providing inspiration and answering questions as necessary.

Teacher Tip: Share your own observations and knowledge about both roles and individuals to pique interest and engagement. Use personal anecdotes or ideas about these professions if you have them! It will really bring things home for your students.

3. Share & Reflect (10–15 min)

Students present (in pairs, or individually) one insight or question from their worksheet to the class.

Collect all the observations during presentations and display them for the students. Use probing questions and statements to draw more from the pairs as they present their work.

Teacher Tip: a great thing to create during this portion of the lesson is a list of questions that students would hope to have answered when they watch the video. This will pair perfectly with the post-lesson and ensure students are engaged and listening for certain things while watching.

Materials Needed

- Science in Action Worksheet
- Whiteboard or virtual wall for idea-sharing
- Sticky notes or digital tools for classroom reflection

Assessment

- Completed Science in Action Worksheet
- Contributions to discussion and group sharing