S.T.E.A.M.

LEVELING UP WITH THE LOS ANGELES RAMS AND HOLLYWOOD PARK

PRESENTED BY Cedars Sinai

MATH | POST-LESSON PLAN

## Lesson Title

- Building a Team on a Budget: The Salary Cap Challenge.

## Basic Information

- Grade Level: 4–8.
- Duration: 60 minutes.
- Subject Areas: Math, Financial Literacy, Career Exploration, Teamwork.

## Lesson Objectives

- Reinforce the idea that math is not just numbers on a page, it's a tool for solving problems, and making big decisions.
- Help students practice real-world decision-making, critical thinking, and math skills.
- Show students how math directly shapes decisions in professional football.
- Challenge students to balance quality vs. cost when managing a salary cap.

## Learning Objectives

- Students will:
    - Apply math concepts (addition, subtraction, percentages) to manage a budget.
    - Reflect on how math is used every day in sports careers.
    - Understand what the NFL salary cap is and why it matters.
    - Make strategic tradeoffs between high-cost and low-cost players.

## Vocabulary

- **Salary Cap** – The maximum amount of money an NFL team can spend on its players each season.
- **Roster** – The list of players on a team.
- **Contract** – An agreement that says how much money a player will earn.
- **Budget Tradeoff** – Choosing to spend more in one area means you must spend less somewhere else.
- **Tier** – A level or category of players based on skill and cost.

**Key Resource**

**OverTheCap – Los Angeles Rams Salary Cap Page**

Link: Over the Cap

This Web site will help you (if you like) dive into the real-life Rams' salary cap. It provides a lot of detail on exactly where the team sits right now in managing the salary cap, introducing lots of new terms and ideas in the world of Salary Cap management. Some students may love the detail. Others may find it overwhelming. Use it at your discretion, either to learn more about this yourself, or to contextualize the Salary Cap Challenge activity more deeply.

**Teacher Tip:** If you plan to show this resource to the class (or present it to them to explore), be sure to explore it first yourself, so you can focus students on certain things it can do/areas on the site to explore. This will help focus student attention on the details you want them to explore, and how you would like them to apply the information to this lesson/activity.

## Standards Alignment

### Next Generation Science Standards (NGSS)

- MS-ETS1-1: Define problems with constraints (like budgets) to ensure successful solutions.

### Common Core Math Standards

- 4.NBT.B.4: Fluently add and subtract multi-digit numbers.
- 5.NBT.B.7: Perform operations with decimals.
- 6.RP.A.3: Use ratios and percentages to solve problems.
- 7.EE.B.3: Solve real-life multi-step problems with positive/negative numbers.
- 8.EE.C.8: Analyze and solve pairs of simultaneous linear equations.

### Common Core ELA Standards

- SL.4–8.1: Engage effectively in collaborative discussions.
- W.4–8.1: Write and justify claims using evidence.

### Career Technical Education (CTE) Standards

- CRP 2: Apply academic and technical skills.
- CRP 6: Demonstrate creativity and innovation.
- CRP 8: Utilize critical thinking to solve real problems.
- CRP 10: Plan education and career paths aligned to personal goals.

## Lesson Components & Educator Guidance

**1. Warm-Up & Video Reflection (10–15 min)**

Start with a prompt. Consider something like this:

- What were some of the ways Matthew and Lauren used math in their jobs?

Chart the students' responses and highlight key ideas from the video like contracts, percentages, paying staff, and budgets.

Bring in Matt's "pie chart" idea from the video to help set up the salary cap challenge and get the group thinking about this fun concept. Here's a generalization of what he said in the video. You can also go back and show students just that section of the video again if it's helpful.

- If we think of the salary cap as a pie chart, and say it's $200 million, all of your players have to fit into it. If your quarterback takes $40 million, that means $160 million is left to build the rest of the team.

Use this to spark discussion. Consider a prompt like:

- If you followed Matt's suggestion and spent $40 million on a quarterback, what would you do with the rest of the pie? Where would you spend more? Where would you save?

Transition the class into thinking specifically about the activity. Use a prompt like this:

- Now it's your turn to think like a Rams executive. Just like Matthew, you'll make tough choices about where to spend big and where to save.

**Teacher Tip:** Some students may resist a math challenge like this, as it's foreign and could be seen as too challenging. Reframe it as problem-solving! Salary cap exercises are as much about critical thinking as the math itself.

**2. Salary Cap Challenge (35 min)**

Hand out the Salary Cap Challenge Worksheet and explain the general premise: students will draft an offensive lineup (11 players) with a $250M salary cap.

**Teacher Tip:** We have also provided a gamified version of the Salary Cap Challenge, which runs on Excel. If you have the option to use this version with your students, please do - it is very simple and fun to use. You can find a link to it on the same page where you pulled down this lesson plan.

Walk through the worksheet and answer any questions before students begin.

**Key concept:** Share that each position in the challenge has a salary range and that, generally, higher pay = higher quality, and lower pay = lower quality. Explain that there are always exceptions - sometimes lower-paying players can perform above expectations - but, as a general rule, students should presume that spending more money on a position locks in better performance from that position.

Reinforce the key math and reasoning concept for this activity: students must make strategic tradeoffs to stay within budget!

Teacher Tip: Encourage debate and reasoning. Walk around to ask questions like:

- Why did you invest big in wide receivers but save on the offensive line?
- What might be the risks of spending just $5M on a QB?

**3. Share & Reflect (10–15 min)**

Have groups share their lineups and highlight one tradeoff they debated.

Use some wrap-up questions to push students toward reflection on the exercise and tie back to the key learning objectives. Consider the following:

- What math skills did you use today?
- How does this challenge show that math is a real-world decision-making tool?

**Teacher Tip:** End the day by connecting this exercise to real-world careers that are accessible to your students if they pursue math and work hard. Reinforce that math in the real world is as much about using information to make decisions as it is equations and formulas.

## Materials Needed

- Salary Cap Challenge Worksheet
- Whiteboard/chart paper for brainstorming
- Calculators (optional, but recommended for speed)

## Assessment

- Completed worksheet (accuracy of calculations, staying under cap)
- Evidence of reasoning in tradeoff explanations
- Participation in group reflection and discussion