

MATH IN ACTION



K20CENTER
THE UNIVERSITY OF OKLAHOMA



AGREEMENT CIRCLES

IT IS EASY TO SUPPORT MATH CONTENT IN
ANY SUBJECT AREA.



LEARNING OBJECTIVES

- Participants will identify parallels between problem solving and logical reasoning in math to other content areas.
- Participants will be introduced to math strategies that can reinforce math objectives in their subject areas.



AUTHENTICITY

VALUE BEYOND SCHOOL

- Connection is made between the lesson topic and actual situations or experiences and is explored in a way that allows students to create personal meaning and significance.

STUDENT-CENTERED LEARNING

- Instruction provides student ownership of the learning environment focused on personal experience and prior knowledge with teacher and student sharing control of the learning.

STATS are FUN!

- Find an elbow partner.
- During this activity, you will construct a viable argument to address the essential question.
- You will utilize the statistics given to support your argument.



WHO IS THE



BETTER TEAM?



VS. STATISTICS



87, 405, 301, 165	Rushing yards	85, 183, 154, 200
150, 118, 171, 193	Passing Yards	274, 197, 440, 200
2(0), 0(2), 1(2), 1(2)	Turnovers	0(1), 1(3), 0(3), 2(1)
12, 48, 41, 33	Total Points	42, 38, 49, 24



OPPONENTS



Baylor

Iowa State

Kansas State

Bedlam

Kansas

Texas

Baylor

Bedlam

SHARE OUT

Who did your team decide was the best team, based on the information that you looked at?



CONTENT STANDARDS

- **Math**—Construct viable arguments and critique the reasoning of others.
- **Science**—Develop a logical relationship between evidence and explanation to form and communicate a valid conclusion, and suggest alternative explanation.
- **Social Studies**—Support claims with logical reasoning and relevant, accurate data and evidences that demonstrate an understanding of the topic or text, using critical sources.
- **English**—Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant, sufficient evidence.

REFLECTION

- How could this practice of constructing a viable argument be used in other content areas? (e.g., English, science, and history)
- Why would this math practice be important in all areas?

AUTHENTICITY CONNECTION:

How does this lesson demonstrate the use of the components of authenticity?



EVERYDAY IDEAS

- Students compute their own percentages for grades in class
- Breaking down math vocabulary in word problems to determine appropriate action steps
- Using data wall information to create graphs and track progress.
- Students use individual assessment data to track their own progress.
- Turn to page “7 x 8” or “66 - 10”, etc., instead of saying the page number.
- **Math teachers: Any other ideas?**

DIY

NUMBER SENSE

1. Estimating
2. Percentage and decimals
3. Rounding
4. Measurement (e.g., act of measuring, choice of units)

- **SOCIAL STUDIES**—Lewis and Clark, industrial revolution
- **SCIENCE**—weights and measurements, cells
- **ELA**—haiku, iambic pentameter

How do you DIY?



I USED TO THINK,
BUT NOW I KNOW . . .

How have your ideas about supporting math in all content areas changed?

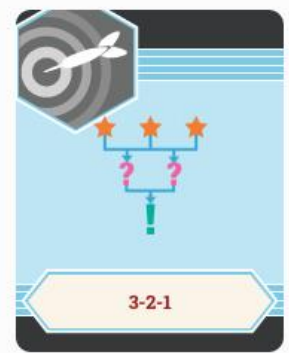


Instructional Strategies

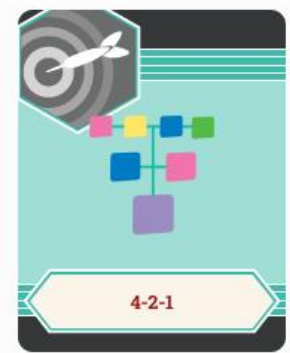
Show/Hide Filters Clear Filters Flip Cards



3 POST-IT NOTES



3-2-1



4-2-1



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BLENDSPACE

K20 STRATEGIES

<https://learn.k20center.ou.edu/strategy/find.html>








K20
L•E•A•R•N
beta

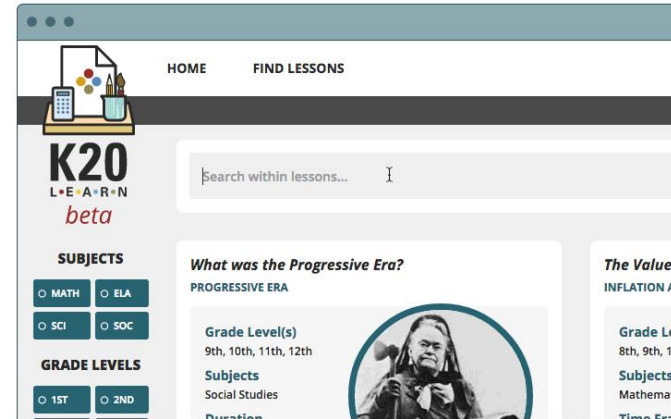
AUTHENTIC LESSONS FOR 21ST CENTURY LEARNING



- | | | | | | |
|---|--------------------------------------|---------------------------|----------------------------|----------------------------|----------------------------|
| <input type="radio"/> English/Language Arts | <input type="radio"/> Mathematics | <input type="radio"/> 1st | <input type="radio"/> 2nd | <input type="radio"/> 3rd | <input type="radio"/> 4th |
| <input type="radio"/> Science | <input type="radio"/> Social Studies | <input type="radio"/> 5th | <input type="radio"/> 6th | <input type="radio"/> 7th | <input type="radio"/> 8th |
| | | <input type="radio"/> 9th | <input type="radio"/> 10th | <input type="radio"/> 11th | <input type="radio"/> 12th |

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EVALUATION

- Please complete evaluation before leaving
- Your feedback and responses are important!

