

MATH MEETS THE FIELD: KICKING OFF LEARNING WITH PAPER FOOTBALL RATIOS!

Miss Bonjorni - Pre-Algebra

This week in Pre-Algebra, our students tackled the challenge of understanding fractions, ratios, and proportions through an engaging outdoor activity—football! Sports might not seem like they have much to do with math at first glance, but in reality, sports provide a fantastic way to apply mathematical concepts and think critically about statistics and outcomes. This activity showed students that math is truly everywhere—even in a game of paper football!

Here's how it worked: each student partnered with a classmate to set up their "football field." They made paper footballs, while their partner used their fingers to form a small goal post. Then, they took turns trying to "kick" the football through the goalpost, scoring points based on how many times they succeeded. To explore different ratios and accuracy, we introduced three rounds of trials. In the first round, students each attempted 10 kicks, recording how many successful field goals they made. Then, they repeated the process with only 5 attempts and a final trial with just 4 attempts.

After each round, students used the data they collected to calculate ratios and percentages. For example, if a student made 6 out of 10 field goals, they worked out that their success rate for that round was 60%. This percentage calculation became more challenging and interesting as the number of attempts decreased, helping students see how accuracy can shift in different situations. They also compared their scores from each round, discussing how fewer attempts impacted their percentages and examining how ratios and fractions represent real-world outcomes.



This hands-on approach helped reinforce key math skills while fostering critical thinking. Students were able to recognize patterns in their performance and even started predicting their scores based on past rounds. For instance, they noticed that a higher percentage in a round with fewer attempts didn't always mean they were more consistent—it could be influenced by a single lucky or unlucky attempt. These discoveries made the learning process interactive, bringing a competitive and analytical edge to practicing math.



By connecting math with physical activity, we also introduced concepts like probability and consistency, which are essential in many sports and everyday decisions. Students were encouraged to think beyond the numbers to see the “why” behind each outcome and reflect on how variables—like skill, chance, or even position—might influence results. This real-world connection demonstrated how math skills like ratios, proportions, and percentages are used outside the classroom, from sports to statistics and beyond.



And, of course, a huge shoutout goes to Nathan Brown, who scored the highest with an impressive average accuracy of 68% across all rounds! Nathan demonstrated great focus and precision, making him a standout player in our paper football field goal challenge. If you're ever looking for a paper football teammate, Nathan is your guy!