

1145-B5-1681 **Lauren Hall*** (lh649428@sju.edu) and **Tetyana Berezovski** (tberezov@sju.edu), 5600 City Ave, Philadelphia, PA 19131. *Sports-Based Learning: Volleyball*.

Bringing sports modeling into the mathematical classroom will inspire young minds to think mathematically about the world around them.

For this project, we created an animated design for defensive passing in volleyball. This animation simulates the elements of the volleyball game and physical movements of a volleyball player. We analyzed this animation for its applications and developed a sport-based mathematical curriculum with appropriate mathematical and physical content relevant to high school students and college freshmen. Mathematical and physical tasks were designed in the context of the volleyball court, the volleyball, the bodily movements of the player, and the winning strategy of the match. The designed tasks were carefully aligned with the CCSS M and the PA standards for Physical Education grades 7 to 12. This cross curricular marriage of mathematics, mathematics education and physical education is aimed to connect the mathematical concepts to the physical world around us, resulting in maximized student engagement. Sporthematics, a field where mathematics meets sports, sparks a greater curiosity from a broader range of students into understanding of mathematical content. (Received September 23, 2018)