

Tiana Linkus

*Kick It: Kick Angle Affect on Distance*

My experiment shows how the angle at which a soccer ball is kicked affects the distance it travels. I chose this experiment because I am a soccer player, and I believe that knowing this information could help soccer players, and even help players from other sports, kick or throw farther. First, I found an open space where I had an adequate amount of room to kick the ball. I set my ball on the line and had someone record where the ball first bounced, the speed of the ball (using a radar gun), and take video of me kicking the ball. Then, I will kick the ball 30 times recording the speed, the kick (with a video camera), and the distance where the ball bounced first. Next, I played the video on a TV and paused the video after I kicked it, but while the ball was still in mid-air. Using a protractor, I measured the angle that the kicker, the ground, and the ball made. I recorded all this in a data table then analyzed my results. I realized that, on average, as the angle got steeper (or closer to 30 degrees), the ball traveled farther. For example, my farthest kick went 67 feet. This kick also had the steepest angle (34 degrees). Obviously, the closer a kick is to 30 or 40 degrees, the farther the ball will travel.