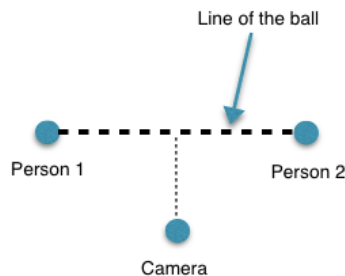


“Throwing a Ball” Project Directions

- Get into groups of 3-4.
- Choose a ball to throw back and forth. This ball must be safe to throw and catch.
- Take a video from a perpendicular view of the line the ball is being thrown as shown below. Both “catchers,” must be in the frame.



- Place an object in the background to use as a measuring tool such as a meter stick. This object should be close to, or directly under the line of the ball.
- Take 3 separate videos of 3 different types of throws (only one throw per video) with the same ball, varying the speed and/or height in each throw. Save these videos and turn them in through email with the rest of the project.
- Use Logger Pro to create graphs of the relation between the ball to both the x and y-axis. There should be two separate graphs for each throw/video.
- Save pictures of each graph with both frame points and the regression function, and turn in with the videos.
- Compare all 6 graphs to each throw. Answer these questions as a group, typed, and turned in with your videos and graphs:
 1. Do the graphs seem to match each throw? How can you tell? How do they vary?
 2. At what point does the throw begin, end, and reach its maximum or minimum height? Is there a maximum of minimum speed? How can you tell?
 3. How accurate are the regression lines? How do you know?