

CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

Name(s) **Project Number** Gabriella J. Malamed **J1318 Project Title** We Love That Basketball Abstract **Objectives/Goals** My project was to determine which playing surface is best for dribbling a basketball. Methods/Materials Each surface area was prepared by taping a meter stick to a wall or pole and videotaping the basketball drop from a consistent height with one bounce measured. This was repeated ten times at each surface area. Data was collected and the height differences were calculated. Results The smallest difference in drop and bounce height was the tile floor, meaning that the ball rebounded higher on that surface. The asphalt absorbed the most energy and the ball did not bounce back as high. **Conclusions/Discussion** The tile floor absorbed less energy from the ball and allowed the ball to bounce higher. From my playing experience, the tile floor is a harder surface than the wood floor, but less hard than the asphalt. Maybe it is just the right amount of hardness but I like playing on the wood court better. **Summary Statement** This project tested which surface a basketball bounces highest on and requires the least amount of energy dribbling. Help Received Mother helped run statistical analysis in Excel.