Steven Garcia  
Junior Division Physics  
*Does Weight Affect the Penetration of Pellets in Ballistics Gel?*

This project was designed to determine if weight affected the penetration of pellets when they are shot into ballistics gel. Ballistics gel was made with Knox gelatin and water. The gel was allowed to bloom for two hours then was put in the refrigerator for 12 hours to set. Pellets of various weights, but the same shape were purchased. Pellets were shot into the ballistics gel with model a 66 Pump Master pellet gun. The end of the gun was 24 inches away from the ballistics gel. Penetration of each shot was measured in centimeters with a ruler. The results of the study indicated that the heavier the pellet the greater the distance it penetrated into the ballistics gel. This also indicated that the greater the energy the greater distance the pellet travels. This information is useful for deciding which pellet weight to use for hunting and target practice.