The purpose of this experiment is to determine the effect of different sizes of bullets expansion. The researcher became interested in this experiment to help hunters or shooters to find a bullet that will suit their needs. Also to help hunters by helping them choose the better bullet for the type of animal they are hunting. So they need a bullet that will do the job for them and also will protect a little meat. This information will also help people pick the right projectile for their needs. The hypothesis states that a lighter grain bullet will penetrate more wood than a heavier grain bullet. The hypothesis is based on the idea that a lighter 75 grain bullet will go faster and in doing so will penetrate the most wood, as opposed to a 100 grain bullet which will go slower and not penetrate more wood. The things needed are thirteen twelve inch by twelve inch pieces of three quarter inch plywood that is layered. Two of these were used during the experiment. A .243 rifle was used. In the first target a 75 grain bullet was shot. In the second target a 100 grain bullet was shot. The 100 grain bullet went farther into the wood than the 75 grain bullet did. This was because of the mass that the 100 grain bullet carried. This experiment will contribute to hunters and shooters.