Name(s)	Project Number
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Project Title

Boomerangs: Return to Sender

Abstract

Objectives/Goals
　The objective is to find out which angle of boomerang will return closest to the starting point.

Methods/Materials
　A basic two-arm boomerang shape with eight inch arms was selected. Eight shapes were then cut from ¼ inch plywood varying the angle between the arms from 60 degrees to 125 degrees. An airfoil was selected and boomerangs were sanded to shape. An open field free of turbulence-producing structures was selected as the test area. The direction of the wind was determined. Each boomerang was thrown five times on two separate days and the landings were charted for distance and angle from throwing site.

Results
　The boomerang with the 107.5 degree angle came closest to the starting point on average.

Conclusions/Discussion
　The boomerang with the 107.5 degree angle returned the closest to me. I am a beginner at throwing a boomerang. The boomerang angle that is supposed to work best for beginners did, in fact, work best for me. Other factors that affected the boomerang performance were the wind and the release technique. Boomerang throwing, just like any other sport, works best when the individual has the equipment appropriate for his or her skill level.

Summary Statement
　What angle boomerang will return closest to the thrower?

Help Received
　Dad helped with sawing the boomerangs. Mom printed pictures.