

What Good is a Parabola, Anyway?
Math/History
(OP, DL, OB)

Class Description: Students will examine how the Battleship *New Jersey* aimed the 16 inch guns with the assistance of a quadratic equation. These guns are capable of firing a 2000 pound projectile up to 23 miles and landing that shell within 30 yards of the intended target. This is amazing when one realizes that the equipment used to aim the guns was designed in the 1930's before GPS, digital computers, or Radar, and is still accurate enough to be used without change today. This is all accomplished with the use of parabolas, which is also applied in this class to hands-on activities such as a quarterback throwing a football or a batter hitting a baseball. A video segment which demonstrates the 16 inch guns in action, 360 degree looks at applicable areas of the ship, as well as a life-size replica of an actual shell (over 5 ft. tall!) serve to enhance the educational experience.