

Shooting Hoops

Developed/Adapted By

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One sentence description of the assignment or activity

Description

Course for which this is used

- PreAlgebra (Math 0950)
- Beginning Algebra (Math 0990)
- Intermediate Algebra (Math 1010)
- College Algebra (Math 1050)

Key topics taught in this activity

Projectile motion, quadratic regression

Prerequisites

Quadratic equations, some understanding of trigonometric functions

Lesson Plan – Detailed Description

Students complete the assignment sheet which will guide them through the process of finding a quadratic function that is representative of the basketball's trajectory to the hoop.

Activity Grading/Assessment

Students will be graded based on their participation and on the completion of their assignment sheet.

Class Time Required

50-60 minutes

Out-of-Class Time Required

If students do not finish during class, the remaining portion will be completed at home.

Materials Required

Graphing calculator, computer with internet access (optional)

Supplemental Web Resources

<http://www.physicsclassroom.com/class/vectors/u3l2a.cfm>

<http://phet.colorado.edu/en/simulation/projectile-motion>

<http://www.khanacademy.org/science/physics/mechanics/v/projectile-motion--part-1>

<http://www.fearofphysics.com/Proj/proj.html>