

South Suburban College Partnership

Transitional QL/Stats Evidence for problem/project-based learning

B. Problem/Project-based Learning Evidence

The required common assessment projects summarized below exemplify the integration of the transitional math requirements and connection to the real world applications. In addition to the required four common assessment projects (attached), each district will conduct four additional authentic problem/projects (attached) A minimum of two projects are required per quarter.

Project One: *Pythagoras and Pele.* Students will build a soccer goal while learning and applying the Pythagorean Theorem and proportions.

Project Two: *Wage Wars.* Students will debate the consequences of raising the minimum wage after calculating and interpreting slope, and y-values from tables, equations, and graphs and solving systems of linear equations from student developed models.

Project Three: *Going Once Going Twice.* Students will write and graph a quadratic equation to determine and describe the real world relation of probability and profit. Modeling expected value and graphing will assist students as they analyze the effects of bidding prices in an auction. Students will work to expand their model to analyze the effects of entering auctions with large amounts of bidders, extrapolating the results to a polynomial model.

Project Four: *Loan Ranger.* Students will compare and contrast the consequences of not paying balances on credit cards after calculating interest and observing the effect of monthly compounding on the model. Students will calculate and understand the value of various monthly payments on the length of payments and total interest collected.