Chancellor Cochran

11/010/14

GRU-VI-MO-MA-MU

EDCI 529

Factoring

Group, Manipulative, Movement

* Separate class into home groups
* Assign roles (Organizer, Scribe and Presenter)
* Give them work sheet
* Show example problem in class (x^2+4x=0)
* Go out side and split class into different groups send one to each station
* Each worksheet will have equations in which the square needs to be completed
* Each station will correspond to a number on the sheet
* At each station there will be wooden pieces used to visualize the completing of the square
  + For example 1) x^2 +6x=0
    - The square piece of wood is labeled as x^2
    - The long pieces are labeled as x
    - And the small squares are labeled as 1
  + Now the class can assemble their equation using the wooden shapes like this:
* Next have the students try to make a perfect square using the shapes
* Finally have students fill in extra space with small squares

Rationale

Developmental Stage:

Students at this age prefer active learning in which they are moving around. Visual, hands on learning. Favor interaction with peers. Students at this developmental stage are beginning to develop an appreciation for the elegance involved with solving mathematical equations.

Bloom’s Taxonomy; application:

Students *demonstrate* the ability to *manipulate* the shapes of the wood in order to *complete* the square physically as well as mathematically. Students *compute* the missing amount needed to complete the square.

Standards:

[CCSS.MATH.CONTENT.8.EE.C.7.A](http://www.corestandards.org/Math/Content/8/EE/C/7/a/)  
Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form *x* = *a*, *a* = *a*, or *a* = *b* results (where *a* and *b* are different numbers)