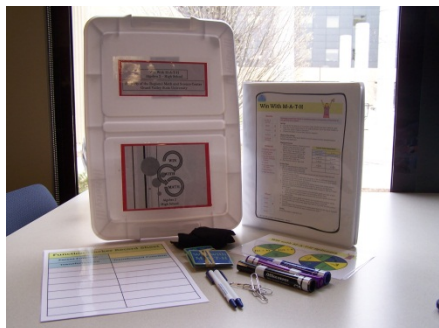


## Discovering STEM Program

### Kit name: Win With Math (Algebra 2)

**Description:** Challenge yourself and friends to transform graphs and equations of functions in this game for 2 to 4 players.



Alignment for Win with Math (Algebra 2) To the Common Core State Standards Mathematics <http://www.corestandards.org>

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#### This kit addresses the following standards:

- IF.A.2. Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
- IF.B.4. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship.
- IF.C.7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.
- IF.C.7.a. Graph linear and quadratic functions and show intercepts, maxima, and minima.
- IF.C.7.b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.
- IF.C.7.d. Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.
- IF.C.7.e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.
- BF.A.1.c. Compose functions.
- BF.B.3. Identify the effect on the graph of replacing  $f(x)$  by  $f(x) + k$ ,  $k f(x)$ ,  $f(kx)$ , and  $f(x + k)$  for specific values of  $k$  (both positive and negative); find the value of  $k$  given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.

When reserving kits, please be sure to:

- **Return** filled out reservation form
- **Review** required kit materials prior to event
- **Return** evaluation forms
- **Replace** consumables