

Kit name: Count my Beans (Grades: Algebra 2)

Description: Beans and mathematics, who knew?! Add white beans to brown beans and analyze the resulting chili mix!



Alignment for Count my Beans (Grades: Algebra 2) to the Common Core State Standards Mathematics

<http://www.corestandards.org>

This kit addresses the following standards:

- N.Q.A.3 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.
- CED.A.1 Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*
- 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. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*
- F.C.7.d Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available and showing end behavior.
- BF.A.1 Write a function that describes a relationship between two quantities.
- BF.A.1.a Determine an explicit expression, a recursive process, or steps for calculation from a context.
- ID.B.6.a Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.
- IC.A.1 Understand statistics as a process for making inferences about population parameters based on a random sample from that population.
- IC.A.2 Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. *For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?*
- IC.B.5 Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.

When reserving kits, please be sure to:

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