

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 2009 Volume III: Science and Engineering in the Kitchen

Cook Me Up Some Equations

Guide for Curriculum Unit 09.03.09 by Scott P. Raffone

Do you know the right ratio of ingredients to make the perfect marinara sauce? Does an Italian cook put salt in water to raise the temperature of water?

I have taken an inquisitive approach to teach high-school math through cooking. We will use ratios and proportions to make a traditional Italian marinara sauce. We will use the Cartesian plane to discover linear expressions and make predictions on some of the results of boiling water. We will find different volumes using homemade dough. Any teacher that has the ability to use heating elements can take advantage of this lesson to provide students with an opportunity to learn mathematics and life skills that they can use for the rest of their life. My research involves a brief history of lines and planar figures with attention to three-dimensional figures and volume.

(Developed for Algebra Lab, grade 9; recommended for Pre-Algebra and Algebra I, grade 9)

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