MATHS SKILLS AND CONCEPTS IN LIFE (LITTLE BEE AND FAIRY BEE)

BAKING AND COOKING

Article 2:

Title: Culinary Math & Science: Turning Your High School Education Into a Culinary Career

https://www.escoffier.edu/blog/value-of-culinary-education/how-chefs-make-use-of-math-and-science-in-the-kitchen/ (Link olarak)

Cooking is a delicious blend of math, chemistry, and biology. Find out how your high school education can help you in your pursuit of a culinary career.
We've all seen the cooking shows—a famous chef grabbing a pinch of this, a bit of that, a handful of the other, creating a mouth-watering dish. They make it appear spontaneous and carefree…and the meal always looks delicious.

It's important to know that a great deal of culinary math and science training likely came before that celebrity chef could simply "toss" a meal together.

But how is math used in cooking? What about science? While cooks and chefs don't need science or math degrees, they do need a working knowledge of the principles of numbers, chemistry, and biology. If you've graduated high school (or if you're about to), you might be pleased to know that you've already started learning some of the important skills you may need to succeed in the kitchen!

And with a well-rounded culinary arts program, students can build on those basics so they, too, can make cooking look easy.

Cooking Brings Math Into the Real World

Ever sit through a high school math class and wonder, "When am I ever going to use this in my future?" If you plan on a future in food, then you're going to use math every day!

Math in the Kitchen

Cooks and chefs use math constantly, from measurements to ratios to conversions. What is a recipe, after all, if not an equation where component parts add up to create a whole?

Cooks are constantly adjusting recipe sizes to fit their needs. A full batch of the soup of the day may make 36 servings, but maybe it's a busy holiday weekend, and you want to make extra. So you decide to increase the recipe by 50%. How will you figure out the appropriate amounts? With math!

Or what if you're making a recipe at a restaurant in the United States, but the original was created by a chef from London? How do you convert metric measurements to imperial? (Yes, there are smartphone apps that can help, but what if you can't access your cell?)

How about if you're cooking a 12-pound turkey? How long will you thaw it, and how long do you need to cook it? To figure it out, you'll need to use culinary math.

Bakers, too, use math every day. A baker may need to increase a recipe for a dozen cupcakes to twelve dozen. How will you go about it? Or they could wish to reverse-engineer a recipe based on the available ingredients. How many cupcakes can you make with 2.5 cups of milk? And how much baking powder and flour will you need now that you've adjusted the liquid?

Fortunately, while there are best practices for culinary math that you may be introduced to in culinary school, you probably already know the basics! Simple multiplication, division, and just a sprinkling of algebra are all you need to get started with culinary math.

Math on the Menu

There's another number-heavy part of the chef's work—the menu.

A chef must be able to calculate the exact food cost of every item on the menu, so they can assign a profitable price to it. The food cost is the sum total of all of the ingredients that go into a dish, from the substantial parts like protein and vegetables, to the oils and fats used during cooking, to the spices and even the garnish scattered on the plate.

To figure out these costs, chefs must keep track of how much they pay for each ingredient, and break those costs down into usable measurements—like the cost of a single ounce of chicken or flour. Once the total cost of each dish is accounted for, the chef must figure out how much extra to add to the menu price to ensure they're covering extras like labor, fixed costs, and a bit for profit.

Sound complicated? In Escoffier's programs, students can discover how to apply the math they already know to costing and pricing their menus.