

Unexpected Produce from the Community Garden – Math Lessons!

By Claire Hanson, with Carol Carner

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Sixth-grade students at Estes Park Middle School are learning math skills by way of the Community Garden.

Carol Carner, Middle School math teacher, had an idea that a visit to the nearby Community Garden could be a jumping-off point for strengthening skills in multiplication, division, fractions and conversion of measurements. She also thought that the garden project might inspire using those skills to make a tasty snack that the whole class could share.

A garden has many purposes, and the Estes Valley Community Garden (EVCG) is many things to many people here. One part of our mission is to include children in Garden activities, and Carol's use of the Garden as inspiration is one way that EVCG supports that mission.

During late spring 2018, the 6th-grade math classes visited the Garden. Teams of 2-3 students toured the plots, selected a plot and photographed everything growing in it. They identified each type of plant, and then researched a recipe that would use at least 3 of those plants.

Each group presented their photos and recipes, and each class voted for their favorite. A salsa recipe won, so that became the basis for math skills lessons for the rest of the school year.

Students worked with multiplication, division and fractions to double and triple the recipe quantities, and to divide it in half or thirds for a smaller quantity. Carol developed a set of worksheets that she has refined for use again this year.

Part of the garden-to-recipe concept was learning how to measure ingredients and to convert from U.S. measurements – cups, teaspoons, tablespoons – to U.K. (metric) measurements like liters, milliliters and grams. Using equipment from the Consumer and Life Skills classroom the students used measuring cups and measuring spoons to deduce relationships between the different measures.

Next, they made a shopping list of what was needed for the recipe, calculating the amount of each ingredient needed for the whole class, and researching prices of each item. Parents donated ingredients and helped on prep day. Students chopped and measured and combined, and guess what – salsa!

Multiplication! Division! Fractions! Volume measurement! If you are working towards preparing a food that you will get to eat, math can be fun all year long.

The EVCG Board is excited to have Estes Valley School District involved in using the Garden as a part of the students' life skills learning. In addition to these math students, 3rd grade teacher Erinn Wharton sponsors the Elementary School Garden Club, an after-school activity where the students plan, plant, maintain and harvest the three plots designated for their use. Students were proud to provide quite a lot of veggies for salad in the Elementary School cafeteria in past growing seasons. And the current 6th-graders are well into their garden-math project at this point in the school year.

Carol extends special thanks to Micheal Torrey and Carrie Martin, Consumer and Life Skills teachers, for providing the kitchen supplies, support, and space to make this project successful, and to Amy Plummer, school volunteer, who was with us every step of the way.

Carol Carner has been teaching middle school math for 20 years and is always looking for creative ways to engage her students in the learning process. She enjoys growing herbs on her sunny deck, and eating fresh garden vegetables!

Claire Hanson has just finished her 4th season growing mostly greens at the Community Garden, was a Board member from 2016-2019, and continues to volunteer on the EVCG Publicity Committee.