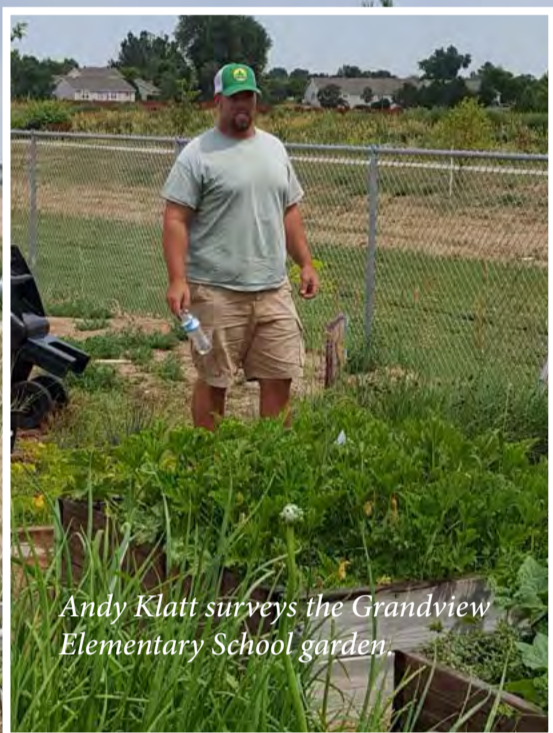


GRANDVIEW ELEMENTARY

An Ag in the Classroom Program that Connects with the Community



Andy Klatt surveys the Grandview Elementary School garden.



Students at play in the school garden - sampling the chives.

Andy Klatt, the Physical Education teacher at Grandview Elementary, attended the Food, Fiber and More Summer Agriculture Institute put on by the Colorado Foundation for Agriculture. Like all Colorado teachers who find ways to earn continuing education or relicense credits, Andy had the same intentions. However, during the week of class a bright light turned on and Andy found himself inspired, unlike ever before. Looking at new innovative ways of teaching cross curricular integration through movement, Agriculture was the missing link. "Witnessing first hand what happens on the land surrounding me - the bag of sugar from the sugar beet that allowed me to bake chocolate chip cookies or how the milk that is in my cereal made its way from the farm to my table, was fascinating to me." Andy explains. The first time attending the class, (he has taken the class more than once) it was located in Morgan County where the emphasis was on livestock and alternative energy. The second class in Fort Collins focused on crop production, management and water. According to Andy, "It's extremely hard to put in words the value of the summer institute - witnessing the number of hats each person in the ag industry wears - business owner, production manager, technology IT director, marketing, water conservation, fuel economy, mechanic, surveyor and all while having a selfless attitude that is contagious. Grandview Elementary Principal, Dave Grubbs, teaches relationships, rigor and relevance. Spending time with many of our local growers makes me work more efficiently while focusing on the 3 R's."

Andy's lessons which connect these concepts are quite unique. For example, Cholesterol Tag has become a class favorite. Students will follow the lines in the gym signifying arteries while LDL (rubber chickens) tag the cells running on the line. Once tagged the cell sits down, creating a block. Students playing the role of HDL carry a red hula hoop. These students will place the hula hoop over those sitting, give them an exercise to perform. Then the students are able to participate again. Moral of the game - proper fats and exercise and your arteries can play.

Grocery Cart is another fun, physical game. Students work in pairs with a small single-seat scooter (rotating between who sits and pushes halfway through) to travel from one end of the gym to other. At the far end of the gym are hundreds of laminated clippings of food (raw and processed food) that students can find in a grocery store. Andy will tell the students to find foods high in a particular nutrient and/or vitamin (i.e., protein). Students will roll across the gym, find the food they think is high in that nutrient and/or vitamin, and roll back to the start, and repeat for another food finding trip (at least two trips). Once all of the students have finished, Andy will engage the students in a discussion of their choices and if they meet the requirements for their nutrient and/or vitamin. Andy focuses on the health implications of these choices as well. For instance, a breakfast high in sugar will create energy crashes versus a breakfast with the appropriate amount of protein which will help provide balanced energy. He will also talk about where these foods come from and connect them to their agricultural lessons. Andy will then challenge students to "go back to the grocery store" to find other foods that would complement their first choices in making a complete, balanced meal. After the second round of pushing their grocery carts Andy discusses these choices with the whole group. The Grocery Cart game is just one example from Andy's curriculum which incorporate agriculture topics with innovative physical education curriculum.

Andy has also encouraged his fellow educators to attend the Food, Fiber & More Summer Institutes. Now agriculture is incorporated into science, math, health and literacy classes at Grandview. He has also recruited educators from other schools to attend and they too have found the fun in bringing agriculture into the classroom. Grandview Elementary program has expanded beyond the classroom into other schools and the community.



School Garden

According to Andy, Grandview's school garden teaches students more about health than the standard health curriculum. The garden club meets on Mondays after school with up to 125 students participating. Throughout the year, the cafeteria showcases several recipes in the lunchroom using foods grown in the garden. Popular favorites are the refrigerator pickles using garlic, onions and cucumbers from the garden and the making of salsa which the students taste test on their tacos.

Grandview school has a fully irrigated garden with an outdoor classroom. Each grade plants according to an area of study from their classrooms. Our fifth graders learn about public speaking and use the garden to explain how to make pickles and how to make salsa. The fourth grade studies Colorado history using the three sisters – beans, corn and squash to learn history. The third grade students study life-cycles using radishes and potatoes. The second grade students grow a literacy garden by growing the vegetables to make stone soup and other books they read. First grade students study insects and plants the insects like. They design a garden to encourage beneficial insects to live in the garden. Kindergarten students also grow a literacy garden focusing on the book "Tops and Bottoms." They also turn their book into reality when they play a of game tops and bottoms in the garden. Before entering the garden the team may choose bed 1 – 29 and top or bottom. If they choose bed 2 tops and upon entering the garden they find that bed 2 is onions, they are not able to eat as brother bear wasn't able to eat in the book. However, a different team may choose bed 12 top and they have a chance to eat cherry tomatoes. The garden brings the book to life.



Lemon cottage cheese protein pancakes prepared by Windsor High School catering class.



Max Muscle showcasing protein from Leprino Foods and taste testing recipes.



Windsor High School FFA students teaching elementary students how to make butter.



Cucumber harvested from school garden for lunch.



Students tasting the rainbow of different fruits and vegetables – even purple cauliflower.

Family Fitness Night & Cooking Night

Cooking night showcases our garden club kids. They take a leadership role in cooking and discussing the healthy recipes. This event serves as community outreach allowing the community to take part in our positive school culture. A question was asked of one of the students in attendance, "Did you try a different kind of food?" He replied, "I tried cauliflower." That night we made mashed cauliflower with Greek yogurt, garlic and Parmesan cheese as a mashed potato substitute. We also made lemon cottage cheese pancakes – learning how to pair our foods while understanding the glucose curve is an important skill we try to develop with our students. Pointes West Bank was the financial sponsor of this event and Guckenheimer Foods provided nutritional staff and chefs to help.



"The garden is fun because you get to plant strawberries and pick vegetables. Gardening is important because it helps us eat healthy foods."

Andrew Johnson, 3rd grade

Learn More About Agriculture and Food

Colorado Reader
AG in the Classroom
Helping the Next Generation Understand Their Connection to Agriculture
Colorado Foundation for Agriculture - www.growingyourfuture.com

Food, Fiber and Natural Resource Literacy

Egg Production
Over 4 billion farms in Colorado produce more than one billion eggs each year. [Learn more on page 2, 5 & 7.](#)

Egg Farming History
Egg farmers have led in using technology to improve egg production and hen health. [Learn more on page 2.](#)

Biosecurity
Protecting hens from disease, severe weather and predators is a priority for egg farmers. [Learn more on page 9.](#)

Eggert's Corner
Eggert is the new mascot for the Colorado Egg Producers. Look for him at events around the state. Find out how you can be a "Good Egg". [Learn more on page 8.](#)

Egg Safety
All commercially produced eggs in Colorado meet USDA grading guidelines. [Learn more on page 6.](#)

Egg Types/Labels
Eggs are produced based on what consumers choose to buy. [Learn more on page 3.](#)

Egg Nutrition
The nutrition label does not show the high quality protein found in eggs. Nor does it mention all the "B" vitamins and minerals found in eggs. Eggs are also one of the few food sources of vitamin D. [Learn more on page 2.](#)

PER EGG
15% DV Protein
10% DV Cholesterol
10% DV Vitamin D
10% DV Vitamin B12
10% DV Vitamin B6
10% DV Vitamin B2
10% DV Vitamin B1

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FOOD, FIBER & NATURAL RESOURCE LITERACY

Building Blocks of Nutrition

Did you know that all foods are made up of basic nutrients? These are building blocks of nutrition and they each fulfill a different need in your body. Some foods have more of one type of nutrient and less of others. That's why it is important to eat a variety of foods every day. Then you are able to get some of each building block or nutrient every day. The main building blocks are shown below. Turn the page and let's learn more about each block.

Proteins
Carbohydrates
Fats
Fiber
Vitamins & Minerals
Water

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Adopt a Farmer

Grandview second graders participate in "Adopt a Farmer" as the students pen pal with local dairy farmers, Jim and Kristie Docheff, owners of Blue Sky Dairy. Students are amazed as they actually have an opportunity to visit the farm and learn hands on what goes on behind the scenes of the refrigerator doors at the grocery store. The dairy tour shows the students that the milk they pull from their refrigerator tastes much better knowing how much work went into that bowl of cereal.

Grandview has also teamed up with a local grower, Randy Schwalm, who grows sugar beets, beans, corn and wheat. The students learn it takes two ears of corn to make a box of corn flakes, two gallons of water to irrigate those ears of corn and ten sugar beets make a bag of sugar, as well as how many bushels of wheat it takes to make a loaf of bread and how many pizzas they can make from Mr. Schwalm's wheat field.

Fuel Up to Play 60

Through a grant from the partnership of Western Dairy Association and the NFL Play 60 program, Grandview has been able to increase student exercise by using Garmin GPS units to create a fitness cache. Similar to a GEO cache only using fitness as the focus and showcasing exercise, students learn orienteering skills and literacy skills while engaging in fast paced fitness lessons. The Windsor High School GIS class has also teamed up with the PE classes and the elementary students learn how to enter their own coordinates, learn elevation, speed, direction and distance. Andy said he was amazed, "I thought 12 way points would be plenty to find in a 55 minute class. My students, in teams of 2, find an average of 34 way points at an average speed between 4.2 and 5.7 MPH. Once we enter the school I am able to plug the GPS unit into the computer to show the students their footsteps. This offers maximum participation."



Special thank you goes out to Thompson Valley Young Farmers who help with many of Grandview's agriculture projects.



Randy Schwalm talking about sugar beets.



Kylie Becker makes friends with a dairy cow when her class visited Blue Sky Dairy.



Max Smith learned about a planter and tractor.



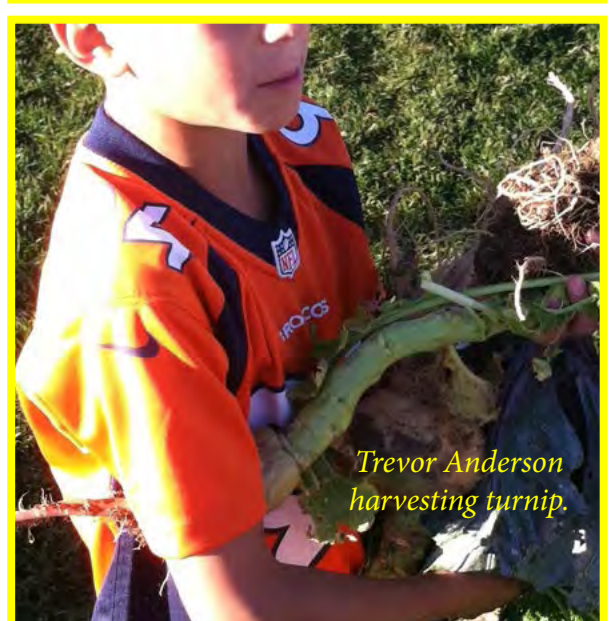
Students are often seen eating products from the garden.



Fuel Up to Play 60 Ambassador Team



Emmett Bleem harvesting a small cucumber.



Trevor Anderson harvesting turnip.

Food 4 Life

Our annual "Food 4 Life" agriculture day gives fourth grade students the opportunity to meet Colorado State Standards for nutrition, Colorado industry, science and math through hands-on experiences from presenters that are experts in their fields. Students fill out reflections following the agricultural fair to show what they learned at this event. Presenters do a great job of presenting in a variety of hands-on, engaging lessons for 230 students from Skyview, Rangeview, Mountain View and Grandview Elementary Schools. Impact: We have found that the impact of this one day has been amazing for our students! Curriculum-wise, it's a great introduction to the agricultural industry so that teachers can revisit these standards throughout the year. Our district's CMAS scores for 4th grade social studies and 5th grade science have exceeded state averages since the inception of agricultural fairs in our district.



How many fourth grade students do you think can fit in the cab of a John Deere tractor?



What can a tractor teach students?

- Science
- Technology
- Engineering
- Math



Students learn how to milk a cow.



Students get hands on with some sugar beets.

School Garden Comments



"Garden Club is so cool because you get to learn how seeds develop into plants. Different seeds grow to be all different kinds of plants. It is a lot of work to prepare the soil, keep it moist, weed the garden, flip the soil every week, and even to make holes in the dirt to plant the onions. It is a lot of hard work, but it is worth it because you get healthy food, you know where the food comes from, and the garden chives taste even better than an ice cream bar." Jack Ruggles

"Garden Club has been so wonderful for my son! He absolutely loves his time at the school garden. He brings home vegetables from the garden and is so excited to tell us about planting them and caring for them as they grow, and to then incorporate them into our family's dinners. It has started many conversations for us about the importance of healthy eating. Our family has a history in agriculture, so it is so special to me that he is learning so much about how important agriculture is. We had an extra-special time when he brought home some rhubarb from the garden and we baked a strawberry-rhubarb pie together (my first homemade pie!). The Grandview Garden Club is a delight for our whole family, especially for my son." Emily Ruggles

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