



# Colorado AeroLab 5<sup>th</sup> Day Programs

21<sup>st</sup> Century Community Learning Centers

Evaluation Report 2019-2020

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# INTRODUCTION

## Program Description

Colorado AeroLab provides a 5<sup>th</sup> day education program to create intentional partnerships between schools, businesses and civic leaders and provide unique 21st century learning experiences for middle school and high school students. The benefits for students are powerful:

- Impact positive social change in the local community;
- Develop a Capstone project and digital portfolio to exceed high school graduation requirements;
- Earn Essential (soft) Skills micro-credentials endorsed by industry and civic leaders;
- Earn the STEM and Postsecondary Workforce Readiness (PWR) diploma endorsements.

## Program Goals

Goal Area	Goal Description
Core Academics	To help students meet the challenging State academic standards, 21st CCLC programs will provide academic activities in core academic subjects such as reading and mathematics (e.g., tutoring). This performance measure can include academic supports such as literacy, mathematics, science, and social studies activities.
Essential Skills/Educational Enrichment	To reinforce and complement the regular academic program, 21st CCLC programs will provide additional services, programs, and activities aimed at increasing essential skills. This performance measure can include educational enrichment activities that support essential skills including performance-based activities that support learning through enriching opportunities that participants would not otherwise receive. Enrichment activities include positive youth development, Service-Learning, career exploration, competency-based learning.
Attendance	Engage parents, families, business, civic and community leaders in social impact design challenges to give students hands-on practical applications to solve local problems in their own communities.

# EVALUATION OBJECTIVES

## Summary of Focus

This evaluation focuses on presenting evidence that Colorado AeroLab's 21st Century Community Learning Centers provide high quality opportunities for academic enrichment and help students meet state and local student academic achievement standards.

## Purpose

The evaluation is designed to assess program effectiveness for continuous improvement to inform future programming decisions.

## Objectives

1. Assess the growth of students attending programming based on objective data.
2. Focus on high need areas when planning and implementing programming.
3. Utilize attendance data to inform program participation.
4. Analyze the process of implementation with a focus on utilizing evidence-based strategies and programs.

## Questions to Direct Evaluation

- Did the program produce or contribute to the intended outcomes during the year?
- To what extent can significant changes in data be attributed to 21st CCLC programming?
- What role do enrichment activities play in NWEA's MAP assessment growth scores?
- What role do enrichment activities play in regular school attendance?
- How do enrichment activities increase family engagement in school and community life?

## Introduction

During the second year of programming, the 5th Day programs grew substantially in scope and participation. Building leaders at all districts were eager for their students to have additional learning opportunities and remained supportive throughout the year. Instructors recruited new and returning students early in the year and were able to keep them engaged throughout both semesters despite the onset on pandemic-related school closures and the shift to remote learning. Parents were more engaged in their children's schools and many community members participated in one or more 5th Day activities presented throughout the year.

## GREAT SUCCESS IN YEAR 2

Colorado AeroLab administers a 21st Century Community Learning Centers grant to operate four sites in North Park Junior-Senior High School in Walden, South Routt County Middle/Senior High School in Oak Creek, West Grand Middle School and West Grand High School in Kremmling. CAL partners with these 4-day school week districts to provide high-quality out-of-school time programs for middle school and high school students focusing on multidisciplinary, hands-on, project-based STEM learning.

Student enrollment and participation in afterschool activities increased significantly during Year 2.

Sites	Total Registered Students		Total Regular Students (Attended >30 days)		% of Total Students Impacted	
	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20
North Park Schools	41	70	39	70	48%	80%
Soroco Schools	49	77	36	56	28%	44%
West Grand Middle School	62	96	31	89	65%	92%
West Grand High School	60	75	25	36	43%	54%
<b>Totals</b>	<b>212</b>	<b>318</b>	<b>130</b>	<b>251</b>	<b>43%</b>	<b>63%</b>

The following report highlights the great successes of the 5th Day programs this year.



*I really appreciate what CAL does for our kids. Our teens need to belong to positive environments that both challenge and excite them.*

Middle School parent

# HIGHLIGHTS SUMMARY

## Students

- 318 middle school and high school students enrolled during SY 2019-20 across four learning center sites
- 251 regular attendees, i.e., participated in 30 or more 5th Day program days
- Extended learning opportunities in design thinking, problem-based learning, social impact projects, teambuilding, social-emotional learning, character and leadership development, growth mindset and more through projects in robotics, logical thought processes, engineering design, 3D modeling and printing and Essential Skills building activities.

## Parents

- Increased engagement at their children's schools and during remote learning
- Strong connection to 5th Day activities via Colorado AeroLab weekly newsletter
- Greater understanding of the future of work and career options for young people, how to plan course loads to meet career goals, and the benefits of project-based learning in education

## Teachers

- Countless hours of personal professional development outside regular content area of instruction
- Built stronger relationships with students
- More involvement in community life at school
- Growing personal satisfaction with teaching profession
- 80% 5th Day teacher retention; changes due to relocation



## Successes and Highlights

- 63% of total students impacted across four learning center sites
- Seven semester-long high school student work-based learning internships
- 2000+ hours of 5th Day programming
- 60,000+ contact hours with middle school and high school students
- Community Outreach: More than 61,000 contact points via newsletter, website, texting, etc.

# SUCCESS STORIES

## Student Academic Success

The informal conversations that occur at school and community events reveal needs and identify less visible gaps where 5th Day programs can serve students and families.

These chance encounters led to internships for two West Grand high school seniors. Each interested in pursuing Graphic Arts degrees in college, CAL was able to provide semester-long work-based intern experiences where these students learned Adobe Photoshop and how



to develop well-designed marketing collateral. The student work was featured in the end-of-year newsletter. Through 5th Day grant resources, these students had access to professional software and career coaching that was not available through their high school. Both students were featured in the local newspaper and one commented that this internship was the best academic opportunity he had experienced in all of his twelve years at West Grand Schools.

## Student Enrichment Programming

At West Grand Middle School, a CAL instructor began a Civics club inviting students to get involved in local community issues and problems. Students chose to pursue a project about leash-law problems in town after hearing many classmates complain of being bitten by dogs. Two 7th grade girls took special interest in the project and conducted student surveys throughout the elementary and middle school classes to

find other students who may have been bitten. The 5th Day teacher mentored them through the data collection and legal research phases to find that the Town of



Kremmling does not currently have a leash law in effect. The pandemic hit and schools were closed just as these students were preparing to make a presentation to the town council. The instructor will work to reinstate the project in Year 3.

## Family Engagement

This North Park 5th Day instructor was an integral member of the Food Services team when the pandemic forced school closure. North Park Schools provided the food and transportation, though needed extra hands to manage logistics. He worked daily to pack and distribute meals to families via school bus delivery as well as parent pick-up. Even brief contact with these students and parents created a vital lifeline and relationship between school and community that continues to strengthen as Year 3 begins.



## Collaboration and Partnership: CAL RoundTable

To engage more students in drone careers, CAL formed a business roundtable composed of various community members across Grand County. Goals are aimed at economic growth, workforce development and work-based learning for high school students. The roundtable met three times during the spring semester before the governor imposed quarantine measures around COVID. Roundtable members continue to be engaged and excited to help students once the new school year resumes with some sense of routine.



# EXTERNAL EVALUATOR

The CAL Support Staff performed the program evaluation using the same methods and tools as in Year 1. The COVID pandemic seriously impacted these rural school districts as none were prepared for or equipped to shift to remote learning in the short timeframe. The transition was rough for students, teachers, and families. As a result, the spring semester of 5th Day programs presented great challenges, however, instructors did a remarkable job connecting with students virtually.

Given the very positive start to the year, and despite the extenuating circumstances of the pandemic closures, the overall success of the 5th Day programs was excellent. Following are the insights and data analyses conducted during the evaluation process.



*“My dream is to make a ginormous Lego creation before I’m 13. I want the biggest Lego creation made by a girl in USA.”*

Middle School student, age 13

# PERFORMANCE MEASURES

## Core Academics

More than 75% of 5th Day student attendees who receive support in CAL will demonstrate an average increase of 5% of academic growth each year for an overall growth of 15% over the course of three years, as measured by CMAS or other district-designated assessment in lieu of CMAS.

*During the regular school week, our instructors work in a tutoring capacity for students to make up missed work, complete late assignments and reteach content when needed. This has been an excellent opportunity to build strong relationships with students that translates into better classroom performance.*

*Each district did NWEA MAPS assessments at the beginning of the year and mid-year during winter. Spring MAPS tests were not given because of the pandemic. All sites showed growth in Math and Reading scores for grades where MAPS tests were given. West Grand Middle School showed the highest growth with an average increase of 6.72 points in Math and 8.19 points in Reading. West Grand High School showed an average increase of 4.24 points in Math and 1.03 points in Reading. The other districts declined to provide assessment data citing inability to give accurate scores due to pandemic closures.*

## Attendance

Each year of the grant, at least 80% of CAL students will decrease regular school absenteeism by at least 10% as measured by comparing the individual student's end-of-year attendance rate each year to their baseline rate at the time of enrollment in CAL.

*School attendance data was not available for this performance measure because districts were not able to accurately capture attendance during remote learning days. Instead, Teacher Surveys and interviews with school leaders and parents provided anecdotal attendance information. The Teacher Surveys indicate that student attendance and classroom engagement have increased among regular attendees.*

*The 5th Day program has proven to be an attractive alternative to staying home on Fridays for many students, and especially for working parents. Instructors have seen students choose participating in 5th Day Fridays over going to another extracurricular school activity on the same day. On regular school days, instructors are available for after school help and have built stronger relationships with students in smaller settings. Both factors have contributed to solid 5th Day attendance at all our sites which has also improved regular school attendance.*

*Teachers have observed that students are present more days during the school year and participate more actively in class. Behavior has improved as well as homework completion and grades. We believe this can be correlated to their relationship-building efforts with students that come as a result of their 5th day involvement. Informal conversations with school leaders and parents have anecdotally confirmed that 5th Day students are more present in school on a regular basis and more engaged in the everyday work and life of their school community.*

## Essential Skills

Each year, 100% of 5th Day student attendees will create an original digital portfolio; 5th Day middle school students will earn at least 4 Essential Skills micro-credential badges and 1 Capstone project per year; 5th Day high school students will earn at least 4 Essential Skills micro-credential badges and 1 Capstone project by graduation.

*Teachers collected student artifacts from 5th Day projects to input in portfolios. Throughout the in-person learning days, teachers monitored students' skills in teamwork, communication, creativity and critical thinking, encouraging and strengthening individual skill development. Teachers observed that all students made good progress toward earning these badges and will also attach them to student portfolios. Informal capstone projects were completed for middle school students, mostly aligning with regular classroom work assigned from day teachers. Year 3 will focus more deeply on larger design challenge projects that demonstrate deeper learning and Essential Skill development, which will be documented in capstone projects and badging.*

## Family Engagement

Each year, at least 50% of parents/guardians of CAL students will report increased engagement in their local school and/or community and 75% of parents/guardians will report increased satisfaction with quality of life in the community, as evidenced by comparing survey responses pre-enrollment and at program completion.

*We are a community-based organization that is far outside of what exists (or has existed) in the small rural communities we serve. While it may be commonplace in the metro regions, a program such as this has never existed in this area. In the past, parents typically do not involve themselves in the regular school setting (outside of standard events such as parent-teacher conferences), but slowly that is changing through 5th Day activities.*

*Parents are asking more questions and volunteering in programs more frequently, as well as inviting friends to get their children involved. During the remote learning days when schools closed, parents became more engaged with their children's academic work and joined in some of the virtual 5th Day activities teachers presented. Instructors were active in delivering lunches and supplies to families and were able to see parents in person, at least from a distance. This helped tremendously to attract participation in 5th Day programs.*

# EVALUATION MEASURES AND TOOLS

## CAL 5<sup>th</sup> Day Program Evaluation Measures and Tools

Area of Measurement	Groups/Persons Responsible for Assessment	Measurement Tools and Rubrics	Benchmark Timeline
Program Context	CAL Support Staff	Tools to be created by CAL Support Staff	End of Semester Stakeholder Satisfaction Surveys
Effect on Socialization and Resilience			Ongoing with Instructor/Student coaching and Student Self-Reflection
Relationships with Peers			
Planning a Successful Future (ICAP connection)	CAL Instructional and Support Staff in partnership with District personnel	Tools to be created by CAL Support Staff in partnership with District personnel	Interim check-in at mid-year
Student SMART Goals			
Avoiding At-Risk Behaviors	CAL Instructional Staff	Search Institute Attitudes and Behaviors Survey <sup>1</sup>	Ongoing with Instructor/Student coaching and Student Self-Reflection
Grit and Growth Mindset Scores	CAL Instructional Staff	Assessment tools created by Angela Duckworth <sup>2</sup> and Carol Dweck <sup>3</sup>	Beginning and End of Academic Year
Essential Skills Micro-credentials	CAL Instructional and Support Staff	Tools to be created by CAL Support Staff in partnership with CDE, Colorado Workforce Development Council and others	Ongoing with formal awards given End of Academic Year
Capstone Projects			
Endorsed Diplomas			

### Program Context, Effect on Socialization and Resilience, and Relationships with Peers

Throughout the year, the Program Director was present at each learning center at least twice per month. This provided firsthand experience and observation of how the instructors interacted with students, how students received the content and persevered through difficulty or challenge, how students interacted with peers and the overall context of the 5<sup>th</sup> Day programs.

The pandemic closure of schools in March provided even more opportunity for instructors to work with students on resiliency. Social-emotional health became a top priority and continues to be a primary goal for Year 3 programming.

- 92% of students shared that 5<sup>th</sup> Day had a strong, positive impact for them personally.
- 70% improved relationships with their teachers, particularly the 5<sup>th</sup> Day instructors.

<sup>1</sup> *Search Institute Attitudes and Behaviors Survey*: <https://www.search-institute.org/surveys/choosing-a-survey/ab/>

<sup>2</sup> *Angela Duckworth's Grit Scale*: <https://angeladuckworth.com/>

<sup>3</sup> *Mindset Works*: <https://www.mindsetworks.com/science/> and *Carol Dweck's Mindset Scale*: <https://www.mindsetonline.com/testyourmindset/step1.php>

- 85% said participation in 5<sup>th</sup> Day made them more excited to be in school and that it helped them do better on attendance and homework.

## Planning a Successful Future and Student SMART Goals

The first 5th Day activities with students focused on goals and planning for the future, using career exploration and research to expose students to wider options than what they know in their small towns. Small and large group discussions revealed that students are genuinely interested, and even deeply concerned, about what they will do after high school.

Instructors shared their students' thoughts and comments throughout the year. Many students expressed fears about leaving their small rural communities for college or vocational schools given they have spent their whole academic lives with the same classmates. Others shared concern about leaving their hometowns because there are not enough well-paying jobs. Almost all said they are not truly confident they will be ready for college or work after high school graduation. All these reflections have been included in planning for next year.

A priority goal for Year 3 is to work more directly with school counselors to help them connect ICAP plans and student SMART goals with 5th Day activities. CAL is in a unique position to supplement and complement social-emotional learning and Essential Skills building. Internships and work-based learning are high priority activities for high school students in 5th Day programs.

## Avoiding At-Risk Behaviors

CAL teachers participated in several district-led professional development trainings at the start of the year focusing on trauma-informed instruction. The Program Director worked with instructors to connect this training with the 40 Developmental Assets and concluded there was no need for further training or surveys. They are all well-versed in identifying and handling behavior issues in the classroom, connect regularly with parents when needed to help students succeed academically and each have years of experience and expertise with all types of adolescent issues. The CAL Instructional Staff is a group of exceptional teachers who consistently receive strong evaluations from their building leaders.

## Grit and Growth Mindset Scores

The Grit and Growth Mindset scales were given to students during the first month of 5th Day programs. Student scores showed a very mid-level, average range of grit and growth mindset among middle school and high school students. Instructors took advantage of every opportunity to discuss and reinforce the concepts through multi-week projects and increasingly complex design challenges.

School closures in March disrupted the overall flow of 5th Day activities as everything moved online. The end-of-year Grit and Growth Mindset scales were not given because (1) students' stress and anxiety would have skewed results, and (2) many students did not have devices or internet access. In virtual activities, instructors used the pandemic situation to encourage students to persevere in schoolwork and show grit and resiliency during the uncertainty.

## Essential Skills Microcredentials, Capstone Projects and Endorsed Diplomas

The partnering school districts are all at very different stages of development with these measurements as well, mostly related to their work in establishing their graduation guidelines in alignment with the CDE menu of options. The respective Boards of Education had some discussion throughout the year to solidify their policies in these areas, however none adopted anything related to endorsed diplomas.

Principal turnover in all districts shifted their administrative priorities and CAL has not been able to gain any traction on that level.

The CAL staff is working to continue these conversations and help district leaders craft policies to make these valuable credentials available to their students. We hope our advocacy will help persuade board members to take action, but the focus on pandemic-related issues seems to be their only concern at this time. We continue ongoing monitoring of board meetings and decisions.

## Data for Continuous Improvement

Regular attendance at 5<sup>th</sup> Day programs gave students a more direct and positive experience of school which translated into improved participation during the regular school day. Teacher surveys also showed greater homework completion rates; more parent engagement and involvement with their children; and decreased discipline referrals and behavior issues. In Family Engagement surveys, parents gave favorable marks for their children's improvement and positive outlook about school.

School leaders and parents are very appreciative and supportive of CAL for providing these out-of-school activities for students. Moving into Year 3, CAL has created new activities to focus more directly on work-based learning and career exploration for high school students to strengthen postsecondary workforce readiness.

# FAMILY SATISFACTION SURVEY

## Family Engagement

Families of students enrolled in Colorado AeroLab's 5th Day program were sent a Parent Engagement survey in November 2019. Of the surveys distributed, 30 parents—representing a sampling from all four sites—submitted input. Overall, parents displayed strong satisfaction with the 5th Day program at their district. Parents were asked to respond to the following prompts:

- I feel that I have a clear understanding of the 5th Day program's goals and objectives.
- The 5th Day program is a safe place for my child to work, learn and have fun.
- The 5th Day program has helped my child do better in school.
- Since joining the 5th Day program, I have noticed a positive change in my child's outlook on school.
- Since joining the 5th Day program, I have noticed a positive change in my child's problem-solving skills.
- I am satisfied with the instruction and activities provided to my child by the 5th Day program.
- I would recommend the 5th Day program to other parents for their children.

	<b>Strongly Disagree</b>	<b>%</b>	<b>Disagree</b>	<b>%</b>	<b>Agree</b>	<b>%</b>	<b>Strongly Agree</b>	<b>%</b>
<b>Goals &amp; Objectives</b>	0	0	2	7	13	43	15	50
<b>Safety</b>	0	0	0	0	8	27	22	73
<b>School Performance</b>	0	0	3	12	12	46	11	42
<b>School Outlook</b>	0	0	1	4	14	56	10	40
<b>Problem-Solving</b>	0	0	2	8	13	52	10	40
<b>Instruction &amp; Activities</b>	1	3	0	0	10	34	18	62
<b>Recommendation</b>	1	3	0	0	8	27	21	70

In reviewing the data, it is evident that a high percentage of parents agree (or strongly agree) about the overall effectiveness of the 5th Day program as it pertains to their children. While the numbers are positive indicators, Colorado AeroLab support staff will focus on addressing some of the issues that are present in the data. For the 5th Day program to have optimal success, there must be translation to the regular school day. According to the data, there is at least some indication that it is not yet a seamless connection. The other area requiring further attention is our efforts to effectively communicate the goals and objectives of the program with our families. Having all our families fully informed about the program will lead to greater enrollment in future years.

# CAL IN THE LARGER COMMUNITY



Colorado AeroLab leaders emerged as innovative educational experts in out-of-school time programming by earning invitations to participate in statewide fellowships and present at national conferences including:

- America Achieves Colorado Educator Voice Fellowship 2019: Design and implement Career Ready Performance Tasks for high school students.
- Homegrown Talent Initiative: Create homegrown, work-based learning programs to build opportunities to develop local talent in middle school and high school students and serve local business and industry needs.
- NW BOCES Collab: Present professional development for educational leaders and teachers in northwestern Colorado school districts.
- Colorado Department of Education 21CCLC Advisory Board: Appointed to advise the Competitive Grants office on issues related to current and future grant funding in afterschool programming.
- PwrHrs Rural Afterschool Conference: Present innovative out-of-school time educational program ideas to rural afterschool program leaders across the US.

- National Dropout Prevention Conference: Present innovative out-of-school time programs to educational leaders and teachers from school districts across the US and internationally.

In addition to managing the four learning center sites, Colorado AeroLab created several new programs and began work on new business development for the coming years:

- Partnership with Grand County Economic Development Office: Participate in the ongoing conversation for economic growth and workforce development across the county.
- P40 Fellowship: Paid fellowship for 7 high school students from West Grand and Soroco Schools focusing on leadership and entrepreneurship.
- Micro-internships: Semester-long internship in Graphic Design for two West Grand High School students.
- Drone Clubs: Beginning drone skills for students at all learning center sites.
- CAL Roundtable Consortium: Gathering of local business and government leaders to discuss potential programs for economic development and workforce readiness programs for students.
- 21CCLC Cohort IX: Expanding Colorado AeroLab 5th Day sites to include new districts at Rangely and Hayden. Due to the pandemic crisis, the grant application has been postponed until Spring 2021.
- MicroBreaks: Small group recreational activities for elementary, middle school and high school students upon reopening during the pandemic crisis.

*You all are awesome! I feel you don't get the recognition you should for all that you've done for our kids in this community. I hope you know how much we appreciate you, thank you!*



~High School parent