Cahn

DISTINGUISHED
PRINCIPALS FELLOWSHIP

GROWING MINDS: REVOLUTIONIZING SCIENCE EDUCATION THROUGH GARDENING

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ABSTRACT

Our innovative school garden project aims to revolutionize science education by creating an immersive, authentic learning experience for students. In designing a vibrant garden on school grounds, we empower students to explore scientific concepts in real-life, fostering a deeper understanding and a connection with nature. By linking theoretical knowledge in the classroom with practical applications in the garden, we expect an upward trajectory in science achievement level proficiency.

Our year-long journey included examining science assessment data from prior years, proposing a budget to build the gardens, working with students and faculty to design and plant, and adapting to challenges along the way. Our results indicate the need to continue our project and to add further support.

INTRODUCTION

Our Cahn project focused on engaging students in meaningful conversations around science while helping them to transition back to the building. After examining our science data, it was evident that if we focused on the nature of science through empowering students to explore scientific concepts in real-life, fostering a deeper understanding and a connection with nature, Frank C. Martin will improve science scores, while bridging gaps and creating a positive relationship between the students in our Primary Years Programme and Middle Years Programme.

Frank C. Martin K-8 Center is authorized to offer both the International Baccalaureate Primary Years Program (Grades K-5) and the Middle Years Program (Grades 6-8). Our school continues to be recognized as one of the District and State's model schools which promotes high student achievement and exemplary community involvement. Frank C. Martin K-8 has received numerous awards, such as the U.S. Department of Education No Child Left Behind Blue-Ribbon Award, Magnet Schools of America Excellence and Merit award, Certified Gold and Silver STEAM School Designation Program, a Red Ribbon Certified School Florida Department of Education, Five Star Award and PTSA School of Excellence to name a few. We are proud to boast an A school rating in the state of Florida, for 22 consecutive school years.

Frank C. Martin's mission is for all stakeholders to commit to the advancement of students' academic, emotional, social and physical wellbeing within a supportive, creative and flexible environment in which children learn to think globally and act compassionately. Its vision is to provide students with an internationally recognized curriculum. This challenging curriculum incorporates world-class standards that empower students to actively participate in the learning process and acquire and exhibit positive attitudes. Students strive to become model citizens of our diverse world.

Frank Crawford Martin International K-8 Center (FCM), has a rich history. Formerly known as Frank Crawford Elementary School, it was founded in 1952 by Captain Frank Crawford Martin, a World War II veteran pilot. Captain Martin initially purchased land in the Richmond Heights community, in the southern part of Miami, Florida. This purchase was in an effort to provide affordable housing for Black veterans. Over the years, the needs of the community changed, and additional land was donated by Captain Martin for churches, parks, and schools. From the onset, Frank C. Martin Elementary School served the local community as an elementary school. However, in an effort to integrate during the early 1970's, the school became a sixth-grade center drawing students from surrounding communities. The school remained a sixth-grade center for twenty-five years until 1997 when it became an elementary school. Shortly after, the school became a member of the Magnet Program for Language as well as the first authorized International Baccalaureate Primary Years Programme (PYP) in the state of Florida. In July of 2008, Frank C. Martin was officially authorized to offer 6th through 8th grade students the International Baccalaureate Middle Years Programme (MYP). Frank C. Martin is Florida's first fully authorized International Baccalaureate K – 8 Center with 100% of the students in the first through eighth grade participating in the International Baccalaureate Programme.

During this time, Frank C. Martin was one of two K-8 Centers in the South Region area of Miami-Dade County Public Schools, making it attractive and convenient for families with students in both elementary and middle school to attend. Because of its unique configuration, Frank C. Martin's boundaries were approximately a third of Miami-Dade County, which allowed for students from multiple communities to attend the first fully authorized IB program in Miami, Florida. To ensure equity and to avoid isolating the community, a clause was

added that required 33% of the student body to come from the Richmond Heights community. This clause made residing in the community popular.

As the K-8 center configuration grew popular, many of the surrounding elementary schools mimicked the configuration, opening opportunities for private schools to offer similar configurations. As legislation changed, and charter schools became popular, the enrollment requirements changed to ease the rigorous application process for enrollment to allow for additional IB and Language programs to flourish. Along with the change in the application process and the increase of K-8 centers and growing magnet trends in the surrounding areas, the recruitment boundaries reduced, and the enrollment of the school began to dwindle.

Over the past six years, Frank C. Martin K-8 Center experienced a steady decline in enrollment. In 2017, the school's student population stood at 1,096, but by 2022, it decreased to approximately 690 students which is approximately a 37-percentage point decrease in enrollment. The reasons behind this decline are multifaceted, including factors such as changing demographics, population shifts within the district, and the emergence of alternative schooling options.

Traditionally, declining enrollment impacts classroom dynamics in a positive way. With fewer students, class sizes become smaller, allowing teachers to provide more individualized attention, tailored instruction, and increased feedback. The reduction in student-teacher ratios positively affects academic growth, as students receive a more personalized learning experience, leading to enhanced engagement and performance. Moreover, teachers can better address students' learning needs, fostering a collaborative and supportive learning environment. However, at a K-8 center declining enrollment creates a strain on the master schedule. With low middle grades numbers and an 8-period middle school configuration, the elementary programs become the benefactor of the negative impact creating larger class sizes, which increase classroom disruption, fewer one-to-one support, and less feedback opportunities at an age where support is needed the most.

The decline in enrollment at Frank C. Martin K-8 Center has implications for standardized test scores and overall academic achievement. An analysis of test scores over the five-year period suggests a correlation between declining enrollment and academic performance. With fewer resources strained over a smaller student body, academic initiatives, specialized programs, and extracurricular activities faced with financial constraints, Frank C. Martin’s student achievement is directly impacted. This decline along with the growth of similar programs led to a decreased competitive level within the district and resulted in a reduction of motivation amongst schools, administration, faculty, staff and students due to the need to compete for the same students. The competition waters down the rigor and reduces the friendly rivalry amongst academically astute students.

The decrease in enrollment limits the courses and extracurricular activities offered at Frank C. Martin K-8 Center. Budget cuts force the school to reduce or eliminate specialized programs, such as drama, chorus, orchestra, and computers/design thinking classes. These cutbacks hinder students' access to a comprehensive and well-rounded education, making the commute less attractive. Moreover, the loss of extracurricular activities, which play a vital role in students' holistic development, may result in decreased engagement, enthusiasm, and motivation, subsequently affecting overall academic performance.

The decline in enrollment at Frank C. Martin K-8 Center over a six-year span has had a significant impact on academic growth. The consequences of the decrease in student-teacher ratios have created an opportunity for more personalized and tailored instruction at the middle years program at the expense of

increased class sizes at the primary years program. However, the reduction in resources and extracurricular offerings, coupled with potential declines in standardized test scores, highlight the challenges faced by the school. It is imperative for stakeholders to acknowledge and address these issues, ensuring that academic growth and opportunities are not compromised for students attending Frank C. Martin K-8 Center.

STATEMENT OF THE PROBLEM

During the 2020-2021 school year, approximately 50% of the 5th grade cohort attended school online for 3rd grade. Those students that attended physically, experience frequent quarantines leading to inconsistent instruction during a critical grade level. Upon Online and physical students returning together as a whole during the 2021-2022 school year, many of the students experienced difficulties adjusting to being on campus. As a result of inconsistent instruction during their 3rd grade and 4th grade years there was evidence of learning gaps for this cohort. The team believed that the learning gaps not only stemmed from the inconsistency of instructions, but the lack of collaboration amongst peers. This was coupled with a shift in faculty returning to the school, particularly in Middle Grades Science, as well as a steady decline in enrollment. Beyond the inevitable (COVID), we predicted that this decline in students was due to a lack of confidence in the transition from fifth grade to sixth grade. As we brainstormed ways to address the declining enrollment, the turnover of faculty, and the student adjustment to school physically, we needed a project that would bring a Primary Years Programme and a Middle Years Programme together in a collaborative way, thus contributing to our problem of practice.

Our problem of practice centers around an innovative school garden project, aiming to revolutionize science education by creating an immersive, authentic learning experience for students schoolwide. This project, led by fifth graders, affords students an opportunity to participate in authentic learning while engaging in conversations with their peers. Not only does the project allow for fifth graders to collaborate amongst themselves, but also to reach down to the third and fourth graders with hopes of capturing their interests from a scientific standpoint.

As the project evolved, the MYP students, grades six through eight, took an interest in developing their own garden. They saw opportunities for earning community service hours, which is one of the requirements for the International Baccalaureate Middle Years Programme. In a short time, the design of a vibrant garden on school grounds was developed and a school-wide project empowered students to explore scientific concepts in real-life, while fostering a deeper understanding and a connection with nature. By linking theoretical knowledge in the classroom with practical applications in the garden, we expect an upward trajectory in science achievement level proficiency.

As the project developed both the fellow and the ally experienced opportunities to grow as leaders. During the 2022-2023 school year, we secured representatives from the Primary Years Programme, the Middle Years Programme, the Science and Arts departments, the Magnet Lead Teacher and local stakeholders to identify the following:

- Type of plants that were manageable,
- Age appropriateness for each grade level,
- Who would manage it,
- How it would be managed,

- How often it would be managed,
- The materials needed, and
- A location for the garden that would be safe, pleasing to the eye.

At the first faculty meeting, the ally presented the project to the faculty and solicited support. She described how the project could support our efforts to merge the PYP and MYP programmes together and improve specific science benchmarks. She scheduled meetings, met individually with stakeholders and administrators.

METHODS

In today's rapidly evolving world, it is imperative that we equip the next generation of students with the necessary skills and knowledge needed to tackle complex scientific challenges. To revolutionize science education and create an immersive, authentic learning experience for 5th graders, a groundbreaking school garden project has been initiated. This innovative approach to science education aims to cultivate a love for science by providing students with hands-on experiences, allowing them to explore concepts and principles in a real-world setting. By immersing students in a dynamic and living laboratory, this project seeks to spark curiosity, foster critical thinking, and ultimately transform the way science is taught in the 5th-grade classroom.

To set the tone for this 5th grade group, these students were the first group of 3rd graders that tested after returning to brick and mortar from COVID. Their test results were a historic low for Frank C. Martin K-8 Center tying another school as one of the district's lowest declining scores for 3rd graders on the Florida Standards Assessments (FSA) in Reading. This group's scores dropped 33 percentage points when comparing tread data from the previous school year. Additionally, as mentioned in the Statement of the Problem, to avoid a repeat with the following 3rd grade group, the resources were deployed to the incoming 3rd graders to ensure that the level of retained students received the interventions needed for Mid-Year Promotion and to ensure that the declining cycle did not repeat. This deployment caused a domino effect, increasing their 4th grade class sizes from 22:1 student to teacher ratio to 28:1 student to teacher ratio. Although these students received support through interventions, the intervention ratio was at times 13:1; limiting the individualized support needed to bridge the learning loss created due to COVID.

With that in mind, many of the students struggle with the adjustments mentioned for returning to school and the continued results of the quarantine protocols. Therefore, it was imperative that we equip this group of students with the necessary skills and knowledge needed to make learning fun, while teaching them collaboration through complex scientific challenges.

Taking that into account, a team of faculty members met at the beginning of the year to brainstorm ideas. This team consisted of the 5th grade level teachers, the Middle School Science Department Chair, the Middle School Art Teacher, the Magnet Lead Teacher, a local stakeholder, Ally, and Fellow. We began to discuss ways to develop a love for science by strengthening the 5th grade cohort. The ultimate plan was to build a pathway to Biology for middle school age students.

Our work began by establishing the type of plants that would be manageable for the timeframe, identifying the materials needed, and the cost factor of the project. Then we began to discuss ways of funding the project. Which funding source would allow us to purchase the identified items within a timely manner? How soon will we receive the funds? When and how should we begin? A proposal was submitted to the Educational Excellence School Advisory Council (EESAC), the Parent Teacher Student Association (PTSA), and community donations, and we were funded.

We Identified teacher leaders to establish a PYP and an MYP garden club. The new garden club was advertised in our morning announcements as an after-school club for all interested students. The garden clubs handled most of the maintenance of the gardens throughout the school year. However, students and teachers who were interested were welcome to weed, water, and plant during the school day.

As a result of building our gardens, Frank C. Martin was able to participate in the Fairchild Challenge, "an award-winning, interdisciplinary, environmental science competition designed to engage students of diverse interests, abilities, talents and backgrounds to explore the natural world" (fairchildgarden.org, 2023). Students in all grade levels, K-8, had the opportunity to experience authentic learning through the garden challenges, thus cultivating a love for science.

We met and worked with fifth and eighth grade teachers to tie in garden activities to assess life science benchmarks. We met with teachers to review benchmarks to ensure that bell ringers/exit tickets were incorporated into lesson plans. To prepare for state testing, these meetings occurred in February and March.

Building a Data-Informed Theory of Action for School Change, a Cahn Study session in February 2023, was most helpful in addressing our problem of practice. The theory of action template gave us the tools and strategies to help us better understand and frame our problem of practice and move it along the change process. The backward mapping approach helped us plan our data-informed change strategy. As this activity occurred at the midpoint of our project, it helped us to identify areas in our project which we needed to address. For example, we realized that we needed to find ways to engage more boys in the garden club, so we reached out to our 5000 Role Models sponsor to encourage male participation.

RESULTS

Frank C. Martin fifth and eighth grade students are required to take the Florida State Science Assessment each year to assess the Next Generation Sunshine State Standards. This assessment includes standards/benchmarks from the current and previous 2 school years. For example, the 5th grade assessment assesses the mastery of the 3rd, 4th and 5th grade standards during the 5th grade year and the 8th grade assessment assesses the mastery of the 6th, 7^{th,} and 8th grade standards during the 8th grade year. In Spring 2022, students scored an average of 68% on the Life Science benchmarks. However, if we were to just analyze the overall 5th and 8th grade students who scored proficiency during the 2022 school year (Totaling 58%), 2021(Totaling 47%) and 2019 (Totaling 47%) school year assessment period and compare it to the Reading, Mathematics, Social Studies, and Acceleration scores, we would see that science is a category of focus.

Because the International Baccalaureate program is designed to accelerate learning, the 8th graders that take the advanced course must score at or above grade level mastery to be recommended for the high school science course. Consequently, the 8th graders who are offered the 8th grade Science course are students scoring below mastery in English

Language Arts. This creates a disparity with the 8th grade science scores. However, to truly compare apples to apples, a disaggregation of data has been conducted to compare the growth of science data from the baseline to end-of-year assessment over a 2-year trend. This assessment would help to determine the science data growth and the impact the garden project had on the 2022-2023 school year.

As seen in Appendix C, the 2022 data showed a growth of 22 percentage points gain when comparing the 5th grade data from the baseline to end-of-year; a growth of 16 percentage points gain when comparing the 8th grade data from the baseline to end-of-year; and a growth of 30 percentage points gain when comparing the Biology data from the baseline to end-of-year. Additionally, the 2023 data evident a growth of 16 percentage points gain when comparing the 5th grade data from the baseline to end-of-year; a growth of 23 percentage points gain when comparing the 8th grade data from the baseline to end-of-year; and a growth of 30 percentage points gain when comparing the Biology data from the baseline to end-of-year. Although the growth did not yield the expected outcome. The data associated with Biology yield the same when comparing the 2022 to 2023 growth; the data associated with 8th grade Science yield a gain of positive seven (7) when comparing the 2022 to 2023 growth; and the data associated with 5th grade yield a loss of negative six (-6) when comparing the 2022 to 2023 growth.

Moving forward, the School Improvement Plan will address the science data as follows; According to the FAST PM 3 data, an area of concern is 5th and 8th Grade Science. The 5th Graders scored a 33% proficiency in science. The 5th Grade Science scores were below the district average of 50% and the State average of 51%. The 8th graders scored a 33% proficiency in science. The 8th grade science scores were below the district average of 40% and the State average of 44%. Based upon the data and the need for targeted instruction of the Science Benchmarks, Frank C. will continue to support the Science Department by implementing the Targeted Element of Data Driven Instruction.

With the implementation of Data Driven Instruction, the 2023-2024 school year goal is for 50% of the 5th and 8th Grade students to earn a Level 3 or higher on the 2024 Science Assessment in May of 2024. The 5th and 8th grade students will participate in a baseline assessment during the first week of school to provide teachers with initial data. As the school year progresses, the 5th and 8th grade students will participate in district topic assessments and the Science Mid-year assessment.

Data-Driven Instruction is an educational approach that relies on the teacher's use of student performance data to inform instructional planning and delivery. This systematic approach of instruction uses assessment, analysis, and actions to meet students' needs. As the students participate in regular assessments, the teachers develop their most effective classroom strategies for teaching the standards and benchmarks.

The students will participate in the Science Baseline assessment in order to gather student knowledge of assessed standards. Person Responsible: Tania Almagro (talmagro@dadeschools.net) The leadership team will analyze the data to determine the greatest area of need and develop an intervention plan for the Science Coach. Person Responsible: Elianeys Basulto (247915@dadeschools.net) The Science Coach will present to the faculty the schoolwide STEAM school plan. The plan will be designed to support the science program across all grade levels.

Changes made for the 5th grade science course:

- The school has transitioned from a self-contained model to a departmentalize model with Ms. Kraus, Cahn Fellowship Ally, leading the planning for science.

Changes made for the 8th grade science course:

- With the continued success of test results in the Biology cohort, Frank C. has increased the number of 7th grade Physical Science offerings to ensure the preparation of students transitioning to Biology.

Due to the reduction of enrollment and the changing demographics, Frank C. Martin has been identified as a Title I School. The grant funds generated from being a Title I School allows for the school to purchase a Science Instructional Coach. The Instructional Coach would be able to assist with strategic instructional planning to strengthen and remediate

the benchmarks needed to improve the science scores. The team will continue to solicit funds from the ESSAC Committee, the PTSA, and the local stakeholders. I believe if the garden project continues, coupled with the Fairchild Garden Challenge, and the STEAM School Designation, Frank C. Martin will yield the expected growth desired.

REFLECTIONS and FUTURE PLANS

In looking at this as a legacy project, we realize that our work is not complete. Although we did not achieve the assessment results that we were hoping for, we recognize that authentic learning will take time. Our garden project will continue this school year and extend to include the younger grades. We will continue to offer an elementary and a middle school garden club and look for ways to encourage increased participation. Additionally, we will remain in the Fairchild Challenge competition to address gardening through language arts, art, and science benchmarks.

Evidence showed limited human capital to be able to consistently address all components of the project. Monitoring, reflecting, and reinforcing the project became difficult due to the limitations in personnel staffing. Moving forward, a Science Coach has been hired to hone and support these areas of growth opportunities. Opportunities to:

- Replant and expand the garden.
- Continue to participate in the Fairchild Garden Challenge.
- Work with team leaders in primary grades to encourage participation in the garden.
- Work with the cafeteria manager to assess the feasibility of including garden products in school meals.
- Weekly labs supported by the Instructional Science Coach will be embedded into grade level instructions.
- Implement Science, Technology, Engineering, Art, and Mathematics (**STEAM**) program for all students.
- Ensure and assist in administration of topic and quarterly assessments.
- Conduct data chats with teachers and students post quarterly assessments.
- Facilitate collaborative planning time to ensure standards-aligned instruction, remediation, and assessment.
- Identify the top limited students to ensure highest potential points captured.
- Streamline utilization of science resources to include purchase of J & J Bootcamp Speedbag consumable books for 5th grade students.
- Establish a targeted group of students based on reading ability and unit assessment trends that will allow for strategic mastery of assessed standards.
- Create digital resources to support classroom teachers' weekly instruction.

Fellow Statement: As I ponder over the impact that the Cahn Fellows program had on me, I began with the trip to Gettysburg. In Gettysburg, one of the key principles learned was the value of communication. Communication should be explicitly conveyed in a manner that, in my absence, the faculty, staff, and students are empowered to run the vision with or without the administrative team with a level of confidence. Leaving the training left me wondering how impactful my leadership style was. Have I clearly communicated the vision? Could the cafeteria workers, custodians, security monitors, clericals, and students march to the vision

in my absence? Did my Leadership Team understand my thoughts and desires? Did I trust the team enough to release them to lead? Was I able to work myself out of a job with the school running on autopilot? Was a succession plan in place? These questions haunted me. It caused me to take a step back and encourage my team to step forward. I urged them to bring a completed plan for us to implement. I encouraged teachers to operate under the spirit of excellence. The only requirement was for them to present their plan to me with enough time to support them if needed. The more I released opportunities to the faculty to work as professionals, the more ideas were presented.

The second impactful training was understanding the language of feedback. I never thought to ask employees how they would like me to convey their feedback to them. This training encouraged me to see feedback from the lens of learning. I have always looked at feedback as a way of evaluating and reinforcing my expectations of the professional/teacher. But how did I know if they understood it or received it in the manner that it was given? Did my approach speak louder than the feedback? Would the professional hear what was said over how it was said? I know that it is important to leave the teacher with his or her dignity intact, but did I really do that without knowing their feedback language? These questions forced me to come to the meeting fully prepared. Yes, it created a level of discomfort, but I learned to be comfortable with being uncomfortable.

Another impactful opportunity Cahn Fellowship provided was the ability to create a relationship with a teacher ally that I could trust and have an open conversation with. Getting to know Ms. Kraus through conversations on the plane and throughout the training allowed me to bounce my thoughts and ideas off her. She is considered one of the original staff members who experienced the transition of the school from a Primary Years Programme to a Primary Years and Middle Years Programme. Individuals like Ms. Kraus are not ones who are committed to the administrator, they are committed to the wellbeing of the success of the school. Therefore, having her as an Ally allowed me to lean on her ability to mentor younger teachers and have a colleague-to-colleague reality check with others. Seeing both approaches was amazing. She even voluntold me to address one of her colleagues that was not pulling her weight. In addition to mentoring, Ms. Kraus promoted, recruited and implemented the garden program. Her excitement and ideas pushed the team to move swiftly and correctly with the project. She pushed for timelines and ensured that those timelines were met. I am truly happy with the work and support she provided.

Although it may appear that I had something to contribute to each section, the Cahn Fellows program empowered me to take that feeling and step out on faith and apply for a district director's position. It was the opportunity to lead amongst leaders who gave me the confidence needed to apply. It taught me that I had the skill set, coupled with the capacity to perform the duties and responsibilities of the job. It gave me a training facility where I could practice and improve my craft. Therefore, I entered Cahn as a principal and completed it as a district director. Thank you to the Cahn Fellowship program for forcing me to step out of my way and move forward to endless opportunities.

Ally Statement: I am grateful for the experience over this past year with the Cahn Fellows. My interactions with the committed Fellows and Allies I have had the pleasure of working with leave me hopeful for the future of education in our cities. As one of the few teacher allies in this cohort, I have had to grapple once and for all with the question of my role. There are many reasons that I have not pursued the path of school administrator over the years, and my time with Cahn Fellows gave me the opportunity to reflect and realize once again that my passion is in curriculum and instruction. I am currently in a doctoral program at the University of Florida which I chose because it touts the following as its key features:

- A clear focus on the scholarship of teaching

- The identification of a “signature pedagogy” to guide the work
- Grounding students’ work in their own educational contexts to create authentic “laboratories of practice”
- Dissertation experiences in which doctoral students study local problems of practice to make change and improvements in their own local contexts (districts, schools, classrooms) (UF TSS, 2023)

In the program philosophy, the University addresses the importance of developing our capacity to address the most pressing problems of practice today which requires a commitment to equity for all children. My intent is to continue to lead at Frank C. Martin International K-8 Center for the time being with this commitment at the forefront of my practice. I am leading the school garden project again this school year with Ms. Isakson and Ms. Allmon as our garden club sponsors. We are registered again to participate in the Fairchild Challenge, and I hope to involve even more teachers and students in this endeavor. I am concerned about the sustainability of our garden project. My goal this year is to ensure that new administrators and EASAC committee members are motivated to continue the project, and to involve more teachers and parents so that the project will continue when teachers move on to other positions.

The Cahn Fellowship experience has allowed me to participate in some of the highest levels of professional development of my long career in education. Our work with Dr. Jeffrey Young, and an examination of his leadership in Cambridge, MA was particularly inspiring to me, and I will continue to use the Theory of Action template that he and Dr. Carolyn Riehl introduced last February.

ACKNOWLEDGEMENTS

We are grateful to the Cahn Fellowship Team, our alumni advisors, the Fellows, and the Allies for an incredible learning experience. Our work together has given us much to consider as we move forward. The discussions we have had impacted our thought processes and broadened our perspective. Your influence will continue to affect our work.

To the Frank C. Martin International K-8 Center family, we acknowledge the work that you do on a daily basis to ensure that our students receive a world-class education.

To Mrs. Allmon and her husband Andy-Thank you for your work in and donations to the MYP garden.

To Ms. Isakson and her parents-Thank you for your work in the PYP gardens. You spent countless hours working over the weekends and while we were on vacation during the holidays!

To our Frank C. Martin EESAC and PTSA, we thank you for your support and your trust.

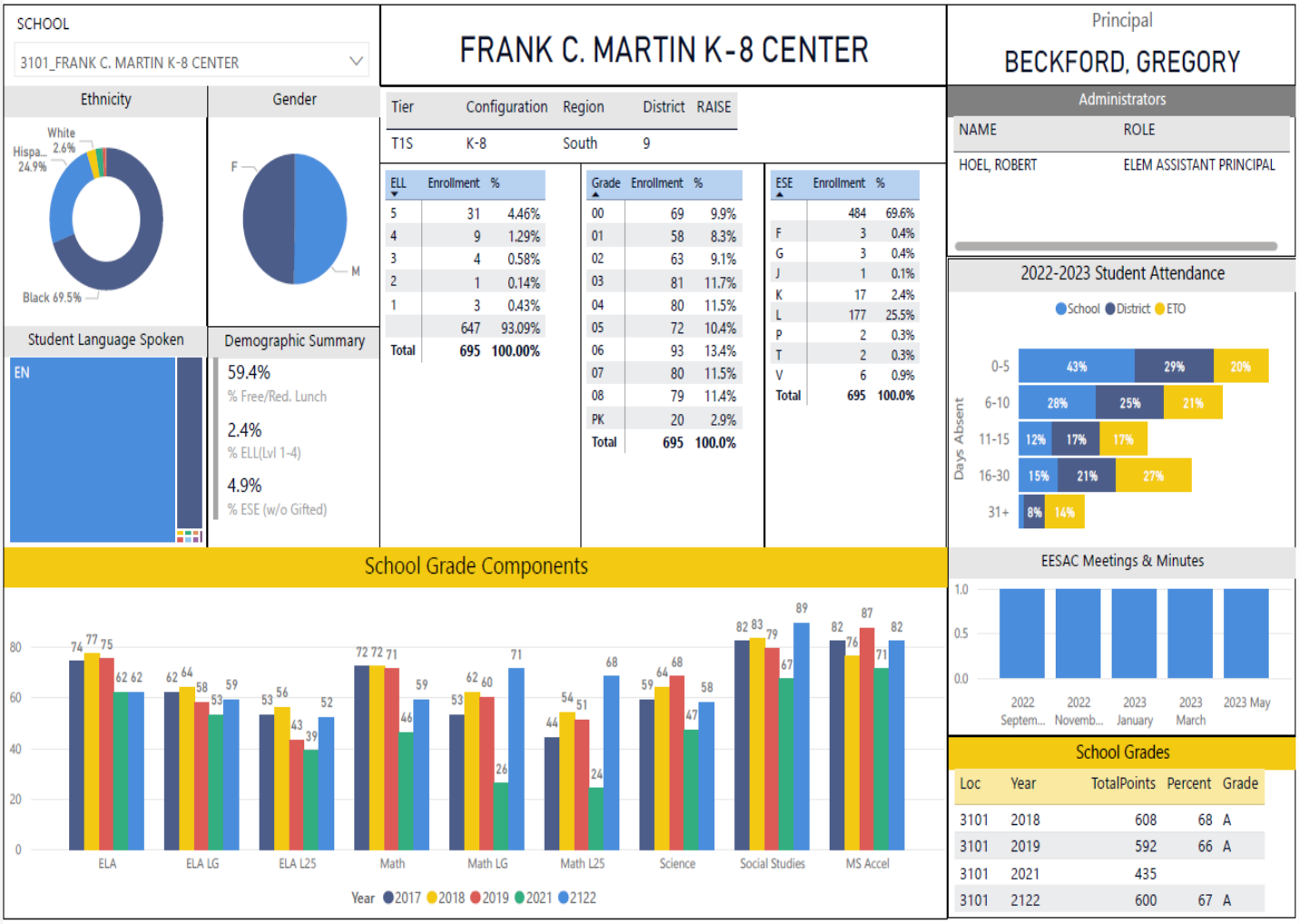
To the Frank C. Martin Gifted Department-Thank you for your consistent involvement in this project.

To our alumni advisors, Raul Garcia and Scott Saperstein, we appreciate your support and guidance throughout our journey.

To Dr. Barbara Mckeon- Thank you for this incredible opportunity. We loved every minute of being part of the Tenacious Twenty!

To Charles Cahn- Who believed that “in recognizing and supporting excellence in education, the entire system can improve.” We hope to continue your vision and improve education in our context.

APPENDIX A



APPENDIX B

W/L 3101 **/ School** Frank C. Martin K-8 Center

Historical School Data/5 –Year Trend

TOTAL FIVE-YEAR TREND:	17-18	18-19	19-20	20-21	21-22
Enrollment	1096	1060	945	894	758
Percent Utilization (Based on Capacity)	84	81	72	68	58

SCHOOL/BUILDING CAPACITY	1307
ENROLLMENT (2021-2022 SCHOOL YEAR)	758
UTILIZATION PERCENTAGE	58
STUDENTS LIVING IN BOUNDARY (GUIDE K-12, JUNE 2022)	706
ATTENDING FROM IN BOUNDARY (GUIDE K-12, JUNE 2022)	258
ATTENDING FROM OUTSIDE OF BOUNDARY (GUIDE K-12, JUNE 2022)	459

SCHOOL CHOICE DATA POINTS

STUDENTS FROM IN-BOUNDARY CHOOSING ANOTHER SCHOOL From Guide K-12/Dashboard	448
PERCENT OF STUDENTS LIVING IN BOUNDARY ATTENDING OTHER MDCPS SCHOOL	63.5
PERCENT OF STUDENTS LIVING IN BOUNDARY ATTENDING CHARTER	10

TOP 3 SCHOOLS WHERE IN-BOUNDARY STUDENTS ARE CHOOSING TO GO:

1. Leewood K-8 Center
2. Richmond Hts. MS
3. Arvida MS

TOP 3 CHOICE TRANSFER TYPE/CODE:

1. Unauthorized - S
2. Magnet Program - G
3. Q/U Working Parent Hardship/ESE Special Program

PERCENT OF STUDENTS LIVING IN BOUNDARY ATTENDING PRIVATE VIA FES Appendix Table A. Actual Enrollment at Traditional Schools and Projected Enrollment Lost to Charter Schools and the FES, 2021-22 Technical Paper: Office of ARDA	3
STUDENTS ATTENDING HOME EDUCATION LOC 8015 From FASCO Report 7/26/22	4

SUMMER 2022 CONTROL OPEN ENROLLMENT & CHOICE TRANSFERS

SCHOOLS WHERE IN-BOUNDARY STUDENTS WERE PROCESSED TO GO:
(TRANSFERS OUT-30)

Leewood K-8 Center, Coral Reef Elementary, Vineland K-8 Centerm Howard Drive ES, Palmetto ES.

APPROVED REQUESTS INTO YOUR SCHOOL (TRANSFERS IN)

Pine Lakes ES, Coconut Palm K-8, Gloria Floyd ES, Colonial Drive ES

IN-BOUNDARY STUDENTS ARE STUDENTS WHO LIVE IN THE BOUNDARY OF THE SCHOOL AND ARE REGISTERED WITH MDCPS AT EITHER A CHARTER SCHOOL OR ANY MDCPS SCHOOL. FES STUDENTS ARE NOT PART OF THIS IN-BOUNDARY STUDENT COUNT.

APPENDIX C

Grade 5 Science	Nature of Science	Earth and Space Science	Physical Science	Life Science	Overall	Growth from Baseline to End-of-Year
2022	- 67%	- 69%	- 77%	- 68%	- 71%	- 22
2023	- 58%	- 58%	- 67%	- 64%	- 62%	- 16
Δ	- -8%	- -10%	- -10%	- 4%	- -8%	
Grade 8 Science	Nature of Science	Earth and Space Science	Physical Science	Life Science	Overall	
2022	- 54%	- 65%	- 63%	- 68%	- 63%	- 16
2023	- 65%	- 66%	- 63%	- 57%	- 63%	- 23
Δ	- -1%	- -1%	- 0%	- -11%	- 0%	
Biology	Molecular and Cellular Biology	Classification, Heredity, and Evolution	Organisms, Populations, and Ecosystems	Overall		
2022	- 67%	- 69%	- 71%	- 69%		- 30
2023	- 67%	- 48%	- 80%	- 69%		- 30
Δ	- 0%	- -21%	- 8%	- 0%		
Baseline	Grade 5 Science	Grade 8 Science	Biology			
2022	- 49%	-47%	- 39%			
2023	- 46%	- 40%	- 39%			
Δ	- -3%	- -7%	- 0%			