



STEAM PLUS

2019 - 2020 REPORT

THE
BASS



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- New World Symphony
- Wolfsonian – FIU
- Young Musicians Unite

PROGRAM IN PICTURES

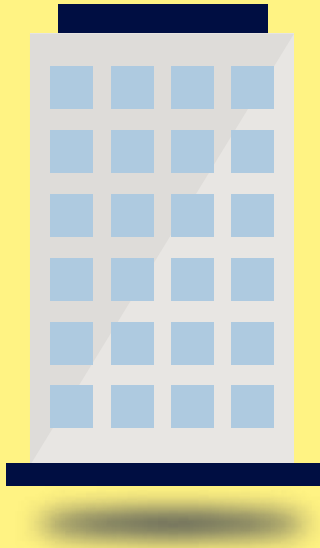


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GENERAL

The 2019-2020 STEAM Plus program added 4 additional cultural partners and 1 additional school.



11 PARTICIPATING ORGANIZATIONS:

- The Bass Museum of Art
- Hack Shack
- Holocaust Memorial
- Jewish Museum of South Florida – FIU
- MiamiBeachBots
- Miami Beach Botanical Gardens
- Miami City Ballet
- Miami Theater Center
- New World Symphony
- Wolfsonian – FIU
- Young Musicians Unite

7 MIAMI BEACH PUBLIC SCHOOLS:

- Biscayne Beach Elementary
- Miami Beach Fienberg Fisher K-8 Center
- Miami Beach Nautilus Middle
- Miami Beach Senior High
- Miami Beach South Pointe Elementary
- North Beach Elementary
- Treasure Island Elementary

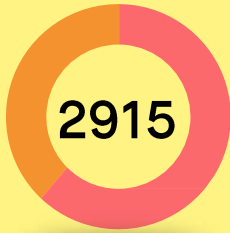


By engaging students around the subjects of Science, Technology, Engineering, Art and Math, the STEAM Plus program aims to spark an interest and life-long appreciation of the arts and sciences in children from an early age.



PARTICIPATION

TOTAL REACH DURING THE
2019-2020 ACADEMIC YEAR:



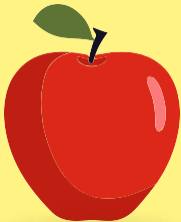
2,915 STUDENTS SERVED

Served 2915 students (about 38% of the student population on Miami Beach).
33% increase in students served compared to pilot period (2180 vs. 2915)



32 PARTNERSHIPS

Facilitated 32 partnerships,
serving 121 classrooms/teachers



451 CLASS VISITS

451 visits to the schools by professional cultural educators*



COVID RESPONSE

Transitioned to online learning in March of 2020 and offered **220** online interactions and other online resources



OVER 600 HOURS OF INSTRUCTION

Provided over 600 hours of instruction from cultural professionals

*In this circumstance "visits to school" also includes any online interactions with classrooms.



PARTICIPATION

STEAM DESIGNATIONS FOR THE 2019-2020 ACADEMIC YEAR:



GOLD

- Biscayne Beach Elementary*
- Miami Beach Nautilus Middle*
- Miami Beach South Pointe Elementary*
- North Beach Elementary*
- Treasure Island Elementary*

*1st year to achieve a Gold STEAM school designation



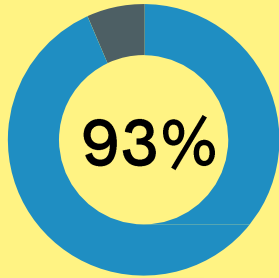
SILVER

- Miami Beach Fienberg Fisher K-8
- Miami Beach Sr. High

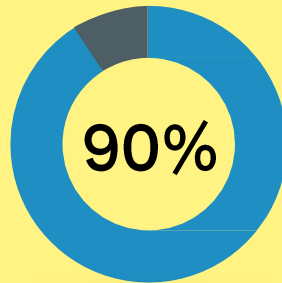


SURVEY RESPONSE DATA

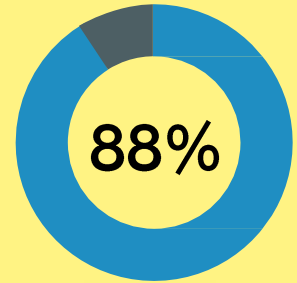
STUDENTS SURVEY RESPONSES:



Of students said they **enjoyed the project** the partnered organization did with their class.



Of students said they **enjoyed going to school on days a partnered organization came to their class.**



Of students **were very satisfied or satisfied with the program overall.**



“

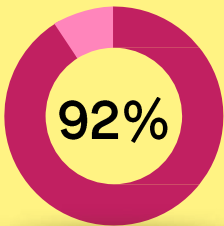
The positive experiences I had during the STEAM program is that it allowed me to use my creativity and it let me see things in another perspective.

”

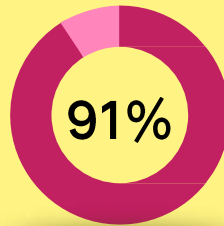


SURVEY RESPONSE DATA

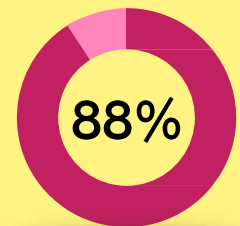
FAMILY SURVEY RESPONSES:



Of parents said that their child liked participating in the STEAM Plus program activities.

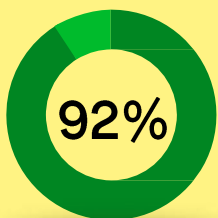


Of parents said that they would like to see their child's school continue to participate in the STEAM Plus program in the future.

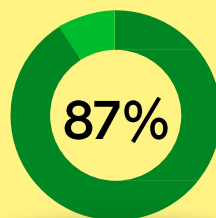


Of the parents were very satisfied or satisfied with the program overall.

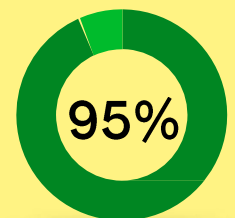
SCHOOL ADMINISTRATION AND TEACHER SURVEY RESPONSES:



Of the school staff said that they would recommend these interactions for other classes/schools.



Of school staff that they would like to see their school continue to participate in the STEAM Plus program in the future.



Of the school staff rated the overall program very good or good.



SURVEY RESPONSE DATA



“

Overall, I found the Teacher interaction and collaboration, along with the community partner engagement to be a great link for students in the classroom to experience real world options.



This experience is viable to helping students connect classroom education to the world around them.

”



EXECUTIVE SUMMARY

From October 2019 through June 2020, the City of Miami Beach Commission and Mayor Dan Gelber, in partnership with the Miami-Dade County Public Schools System (M-DCPS), approved funding for the first full academic year of the STEAM Plus program, which integrates arts and culture into the core curriculum of local public schools.

This year, The Bass continued to manage partnerships between cultural organizations and Miami Beach public schools, emphasizing the integration of the arts into core subjects such as science, engineering and math, which help public schools attain their STEAM designation. The Bass serves as a bridge between The City of Miami Beach's schools and the partnering institutions, thus alleviating pressure on the STEAM coordinator at each school. Additional support is also provided by The Bass' manager who is able to work closely with the schools in preparing for their M-DCPS STEAM designation visits, STEAM partnerships, STEAM designation applications and submissions to ensure they receive a gold, silver, bronze or participant designation.

The 2019-2020 STEAM Plus program added 4 additional cultural partners and 1 additional school. The 11 total cultural organizations included: The Bass Museum of Art, Hack Shack, Holocaust Memorial, Jewish Museum of South Florida – FIU, MiamiBeachBots, Miami Beach Botanical Gardens, Miami City Ballet, Miami Theater Center, New World Symphony, Wolfsonian – FIU and Young Musicians Unite. These cultural institutions were paired with a total of 7 Miami Beach public schools: Biscayne Beach Elementary, Miami Beach Fienberg Fisher K-8 Center, Miami Beach Senior High, Nautilus Middle, North Beach Elementary, South Pointe Elementary and Treasure Island Elementary. The partnership between Miami's cultural institutions and the city's local public schools create the next generation of inventors, explorers, innovators, artists and leaders.



EXECUTIVE SUMMARY

By engaging students around the subjects of Science, Technology, Engineering, Art and Math, the STEAM Plus program aims to spark an interest and life-long appreciation of the arts and sciences in children from an early age. Developing a relationship with the arts helps learners to develop creative problem-solving skills, present difficult concepts visually and help children with the development of motor skills, language skills, social skills, decision-making, risk-taking and inventiveness.

For the 2019-2020 year, the following key items were achieved through the STEAM Plus program:

Total Reach

- ★ Served 2915 students (about 38% of the student population on Miami Beach)
 - ★ Facilitated 32 partnerships, serving 121 classrooms/teachers
 - ★ 451 visits to the schools by professional cultural educators*
 - ★ Transitioned to online learning in March of 2020 and offered 220 online interactions and other online resources
 - ★ Provided over 600 hours of instruction from cultural professionals
- *In this circumstance "visits to school" also includes any online interactions with classrooms.

STEAM Designations for 2019-2020 Academic Year:

- ★ Biscayne Beach Elementary: Gold (1st year as a Gold STEAM school)
- ★ Miami Beach Fienberg Fisher K-8: Silver
- ★ Miami Beach Nautilus Middle: Gold (1st year as a Gold STEAM school)
- ★ Miami Beach Sr. High: Silver
- ★ Miami Beach South Pointe Elementary: Gold (1st year as a Gold STEAM school)
- ★ North Beach Elementary: Gold (1st year as a Gold STEAM school)
- ★ Treasure Island Elementary: Gold (1st year as a Gold STEAM school)

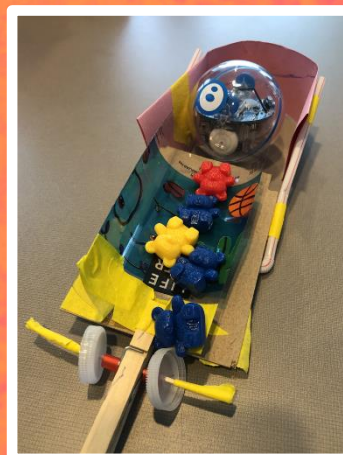


EXTENDED EVALUATION RESULTS

STUDENTS SURVEY RESPONSE

During the fall and early spring, a portion of participating students were given paper surveys to fill out at the culmination of their partnership. Due to the pandemic, however, not all organizations were able to get the paper surveys done. In late May, classroom teachers sent out a digital survey to students/parents. In total, we received 257 paper survey responses and 158 online survey responses. Despite the closure of schools, we were able to increase our response rate by 3%, the pilot program garnered a 11% response rate, while the 2019-2020 program year garnered a 14% response rate. (n ~ 415)

- 93% of students surveyed agreed or strongly agreed when they were prompted with the statement: I enjoyed the project that the [org name] did with our class.
- 90% of students surveyed agreed or strongly agreed when they were prompted with the statement: I enjoy coming to school on days [org name] comes to our class
- When asked to rate the program overall, 88% responded that they were satisfied or very satisfied.





EXTENDED EVALUATION RESULTS

SAMPLING OF STUDENT QUOTES

Individual responses to the question:

What did you like best about this partnership program?

"The STEAM program provided many opportunities in the science field this year. I mostly enjoyed the connections that this program allowed me to join between the STEAM field and my other classes, including elective classes."

~

"I liked best about the partnership program is that we as a class were able to collaborate on ideas and complete certain tasks"

~

"The positive experiences I had during the STEAM program is that it allowed me to use my creativity and it let me see things in another perspective."

~

"They inspired many students to learn about problems in the world that we need to fix."

~

"The STEAM project experiences were fun to work with and gave us a better perspective of what STEAM is."

~

"The things that I would like to add for improvement is that the people who come to visit, come for more days and for more time."

~



EXTENDED EVALUATION RESULTS

FAMILY SURVEY RESPONSES

In late May, classroom teachers sent out a digital survey to students/parents. In total, we received 138 online survey responses. Despite the closure of schools, we were able to increase our response rate by 2%, the pilot program garnered a 3% response rate, while the 2019-2020 program year garnered a 5% response rate.

- 92% of parents surveyed agreed or strongly agreed when they were prompted with the statement: My child liked participating in [org name] S.T.E.A.M. Plus program activities.
- 91% of parents surveyed agreed or strongly agreed when they were prompted with the statement: I would like to see my child's school continue to participate in the S.T.E.A.M. Plus program with [org name] in the future.
- When asked to rate the program overall, 88% responded that they were satisfied or very satisfied.

SAMPLING OF FAMILY COMMENTS

"The STEAM program overall helps kids with the enthusiasm of learning."

"During the Covid -19 more virtual steam programs please. Thank you."

"It would be great to have more information directly from the school about the programs and collaboration between the museums and the school."

"They should have more activities like this during the school year."

"They were all great and positively impacted my child"

"He enjoyed seeing his work displayed at the museum"

"Everything is good. The idea of including the family for the expo is great. Thank you all of you for this program. Also the teachers are excellent"



EXTENDED EVALUATION RESULTS

SCHOOL ADMINISTRATION AND TEACHER SURVEY RESPONSES

In late May, classroom teachers and administrators connected to the STEAM Plus program were sent a digital survey. In total, we received 61 survey responses. Despite the closure of schools, we were able to increase our response rate by 5%, the pilot program garnered a 48% response rate, while the 2019-2020 program year garnered a 53% response rate.

- 92% of school staff surveyed agreed or strongly agreed when they were prompted with the statement: I would recommend these interactions for other classes/schools.
- 87% of school staff surveyed agreed or strongly agreed when they were prompted with the statement: I would like to see my school continue to participate in the S.T.E.A.M. + program in the future.
- When asked to rate the program overall, 95% responded that it was good or Very good.





EXTENDED EVALUATION RESULTS

SAMPLING OF ADMINISTRATION AND TEACHER COMMENTS:

"The program was very well organized and it fit perfectly with the curriculum."

"The instructors were knowledgeable and engaging. The lessons were well planned. The City of Miami Beach worked well with teachers to ensure that the proper standards were implemented and that the interactions worked well with the remote lessons that were taking place."

"Overall, I found the Teacher interaction and collaboration, along with the community partner engagement to be a great link for students in the classroom to experience real world options. This experience is viable to helping students connect classroom education to the world around them."

"All students loved the interactions with the partners. In addition, they loved the field trips to local places that they never knew were there or had visited."

"They loved feeling like little artists creating sculptures and mobiles that resembled the famous artist's work and which was so relevant to what they heard on the news. I enjoyed every bit of it too. Great experience for everyone."

"They liked working with technology and creating their own compositions with little musical or technological knowledge."



EXTENDED EVALUATION RESULTS

SAMPLING OF ADMINISTRATION AND TEACHER COMMENTS (CONT'D)

"We got Green Apple Designation this year! Our evaluation score went up from last year when the STEAM team came to visit, so that's a good thing. Teachers are getting a better understanding of what those STEAM 5.0 lessons are meant to look like."

"I discover[ed] talents, expressions, and connections that I had not seen before on some of my lowest students."

"My student was chosen to receive a full scholarship for the Miami City Ballet."

"STEAM helped many students have fun with music, which is what it should be. We are not nurturing future musicians but rather music appreciators. If they want to pursue a career in music, then that's great."

"STEAM + program is perfect venue in establishing community participation. It allows the parents and students to benefits that are available in our community that they may not have been aware of such as the nearby museums and garden. Very exciting for all involved in our population."

"Overall, I was very impressed with the seamless transition from face to face interaction to remote learning interactions. The students responded to the instructors and the lessons as if they were face to face."

"Overall I am extremely satisfied with the program. The instructors were well informed and provided the students with excellent hands on activities that kept them engaged. North Beach is excited for next year and the new experiences that will be provided to our students."

"As a classroom teacher I really appreciate the way in which the program was able to open up a world of understanding for my ESOL students."



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Alberto M. Carvalho

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August 3, 2020

Obi Lawrence
S.T.E.A.M. Coordinator, 2019-2020
Treasure Island Elementary School
7540 E Treasure Drive
North Bay Village, FL 33141

Dear City of Miami Beach Commission:

By way of introduction, my name is Obi Lawrence. I was the S.T.E.A.M. Program Coordinator at Treasure Island Elementary School during the 2019-2020 school year.

I would like to thank you for the generous S.T.E.A.M. + program sponsorship provided to the students of Treasure Island Elementary School during the 2019-2020 school year. The teachers, staff, administrators, and parents were delighted and appreciative to learn that the school was selected as one of the recipients of your sponsorship.

Treasure Island Elementary is a Title 1 school located in North Bay Village, FL serving 570 students in grades Pre-K-5 and two Head Start classrooms, which 83% of the students are on free or reduced lunch. The student ethnic groups are Hispanic (74%), White (19%), Black (6%), and Asian (1%).

We were fortunate to have Ms. Koren Illa, the Education Outreach and Special Programs Manager from The Bass Museum, as the expert leader through the implementation of the S.T.E.A.M. + program as the school participated in the district S.T.E.A.M. school designation program. As the program coordinator of Treasure Island Elementary, I was able to work directly with Ms. Illa in the selection and coordination of the three community partnerships: Hack Shack, Miami City Ballet, The Bass Museum. In collaboration with Ms. Illa, community partners, and teachers, we all had the opportunity to create standard-based, meaningful, and relevant lessons for all students.

The members of Treasure Island Elementary school community such as students, teachers, staff, administrators, and parents constantly stated their appreciation for the quality of the school's S.T.E.A.M. + program and the immeasurable commitment and devotion Hack Shack, Miami City Ballet, and The Bass Museum had to all students learning experiences that included hands-on activities, technology, showcases, field trips, and parent involvement.

With your generous sponsorship of the STEAM + program that included three fully funded community partnerships, the students enriched their learning experiences at levels that would have been limited without your support. Your generosity has instilled in the students the love for exploration, particularly in the areas of S.T.E.A.M. as evidenced by Treasure Island Elementary's recent achievement of the M-DCPS S.T.E.A.M. School Designation Gold Award.

The Treasure Island Elementary School community appreciates your support to the students' learning experiences during the 2019-2020 school year with a S.T.E.A.M. + program that has enhanced students' academic achievements and has contributed to their intellectual development as students prepare for the evolving demands of the 21st century.

Sincerely,

Obi Lawrence



August 4, 2020

Miami Beach Commission:

I want to take a moment to show my appreciation for your support to our school system. You have made an impact on the quality of life for the children of Miami Beach and our future citizens. We have been a STEAM designated school for two years during which our students have had ample opportunities to be involved in innovative standards driven STEAM Lessons given by teachers and supported by partnership organizations which enhance the student learning experience. As the STEAM Coordinator, I have had a pleasure of working with an amazing group of individuals; not only our teachers, but those individuals that work for our partnerships. I will mention a few. Koren Illa from the Bass Museum was always available and facilitated communications with the partnerships. From Miami City Ballet, Melissa Anduiza ensured the program was running smoothly and Anamaria Correa invited our students to a Miami City Ballet Performance. In addition, Dr. Rosenfeld organized after school STEM Clubs.

Miami Beach Fienberg/Fisher K-8 has benefited from our partnerships. Our students were able to work with local artists at school and during a BASS Museum field trip to develop a STEAM lesson that was displayed at the BASS Museum for parents and the community to see. Our middle school students worked with Young Musicians Unite to create music not only by playing the instruments but also using digital audio workstations. The Miami City Ballet not only merged dance with learning through STEAM Lessons but also allowed the opportunity for students to go on a field trip to see a performance and then perform at school. All these activities and others not mentioned have contributed to the success of our school. We have moved from bronze to silver designation. We continue to make strides to improve our students cultural and academic experiences.

We are currently in changing times; the pandemic has affected the way we are teaching our students. As we move forward this school year, we will have to make adaptations in order to ensure we continue to provide a high level of education to our students during online learning. We will benefit from programs that provide cultural and virtual experiences for our students. Please continue to support our schools through partnerships like the Bass Museum of Art, Young Musicians Unite, Holocaust Memorial, the Perez Art Museum, and Miami City Ballet.

Sincerely,

Eloisa Menes
Eloisa Menes

STEAM Coordinator
Miami Beach Fienberg-Fisher K-8
1420 Washington Ave
Miami Beach, FL 33139

emenes@dadeschools.net



Superintendent of Schools
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August 5, 2020

To the City of Miami Beach Commission:

First and foremost, thank you so much for granting Miami Beach South Pointe Elementary, our students, and staff so many diverse opportunities to experience hands-on activities that are outside a traditional classroom. These activities allow students and teachers to be involved in various adventures, peak new interests, and grow into well-rounded citizens. It also allows everyone to be involved in our community and the beautiful things it has to offer. Many students have never seen the Miami City Ballet perform nor experienced the Bass or Jewish Museum. The partnership between our school community and the STEAM Plus program is absolutely invaluable and we appreciate all that is offered to us.

The partnership between the Bass Museum and the third-grade family was incredible. They made each event engaging, exciting, and well informative. Koren Illa constantly communicated with staff to ensure that all accommodations for students were met and everyone could be actively involved in the project. The museum staff worked diligently to include topics that are in our curriculum, as well as, our International Baccalaureate program so that students may extend their knowledge on what they are learning in class.

This year's project involved was an activity to create a kinetic chariot sculpture using Sphero's to teach students through STEAM. Students learned basic coding with the Sphero as an engine and designed their own chariots to carry a specified item from one place to another. Although Covid-19 derailed our plans this year, it was on the calendar for students to be able to bring their families to the museum to see their creations.

Alexander Zastera was one of the museum facilitators involved with my classroom. I cannot say enough about his amazing personality, his ability to teach my students, and his overall demeanor. Many of my students academically struggle and Alex did wonders with them during all of our meetings together. My students were always engaged and he helped them build the confidence to create something out of nothing. We appreciate all of his hardwork and dedication to the STEAM Plus program.

Thank you again for the amazing opportunity to learn and have hands-on experiences. These are priceless experiences for our students. We look forward to next year's activities.

Thank you,

Roxanne Bressett, 3rd Grade Teacher
Miami Beach South Pointe Elementary



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Jorge Mazon

Assistant Principal
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August 4th, 2020

To the City of Miami Beach Commission:

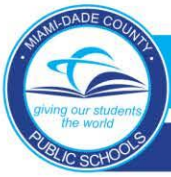
At Miami Beach South Pointe Elementary, we have benefited in so many ways over the last two years from the City of Miami Beach's STEAM + Program. This innovative collaboration between the schools, MDCPS, and the city's cultural institutions has provided a plethora of new experiences for our students, many of which would not have been possible before. With the help of Ms. Koren Illa, the program manager, we have established valuable partnerships with the Bass Museum, the Miami City Ballet, and the Jewish Museum of South Florida. Each of these institutions facilitated field trips and in-school experiences that went beyond the traditional curriculum, sparking students' creativity and critical thinking through real-world experiences. With the help of the STEAM + Program, our teachers have also been able to expand the ways in which they engage students in project-based learning that infuses the core subjects of math and science with art, technology, and engineering.

As the school's IB Coordinator and Lead Teacher, I worked in close partnership with Mrs. Carolyn Greene, our STEAM Liaison, to ensure that we were fully implementing all aspects of the STEAM program to meet designation criteria. We both saw first hand how much work this truly entails, and how lucky we are to have the support of the City of Miami Beach STEAM + program, as well as Ms. Illa, who has done a fantastic job coordinating and is truly a pleasure to work with.

Again, we thank you for your ongoing support, and we hope that with your help, we will continue to expand our STEAM program at Miami Beach South Pointe Elementary to once again earn a Gold Designation for the 2020-2021 school year!

Sincerely,

Celine Clark
IB/PYP Coordinator
Miami Beach South Pointe Elementary School



Superintendent of Schools

Alberto M. Carvalho

Principal

Jorge Mazon

Assistant Principal

Tracy L. Cartwright-Rind

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August 4th, 2020

To the City of Miami Beach Commission:

The S.T.E.A.M. + interaction in which my 4th grade students participated with the Jewish Museum was extraordinary. My students gained valuable knowledge about the history and use of stained glass in buildings, the science behind the creation of stained glass and the art skills required for such artistic creations. My students participated in an art project that was very interactive and hands-on. Each student designed their own stained glass while gaining knowledge about geometry and geometric patterns and learned about the different shades of translucency. Moreover, the interactions involved rich discussions with the instructor, Karen, and the students were engaged in collaborative group work which allowed them to continue developing social skills while learning together. Based on my students' feedback after the completion of the S.T.E.A.M. project with the Jewish Museum, they felt very motivated and engaged, and they definitely would love to do it again. Through this interaction, the students enriched their knowledge and developed new perceptions about the world around them. It is interactions like these that help teachers and students maintain high-level learning environments where students can make connections to real world situations.

Here are some comments shared by some of my 4th grade students:

"My experience at the Jewish Museum was great! It was fun seeing the stained-glass and learning about the history of the Jewish people. I also liked when we made our own stained-glass project. This experience was one-of-a-kind and created great memories with me and my classmates." -John

"The Steam Program made me more interested in science and helped me and my classmates work together in order to better become problem solvers. The steam projects helped me understand and use technology. I had never used so much technology before. I also loved working with my hands as I did with the erosion project and the energy project." -Brooklyn

"Last school year I visited the Jewish Museum of Florida, it is located close to my school. My favorite part was when I learned about stained glass, specifically when is colored and cut into pieces which form a larger picture. I enjoyed working with my friends in doing the stained-glass project and learning about the science of making stained glass." -Colin

Sincerely,

Al Lawrence, 4th Grade Teacher
Miami Beach South Pointe Elementary School



STEAM + PROGRAM at the Jewish Museum of Florida-FIU

Working at the Jewish Museum of Florida-FIU for the STEAM + Program has been a very fulfilling experience as both an artist and a teacher. I believe in the power of art integration, and the STEAM + Program is an excellent opportunity to promote it for both the institutions leading these initiatives and the participating schools.

The benefits of instituting STEAM programs and lessons have been proven to help children learn better. Students learn in different ways, and by introducing them to the arts we are opening different ways of thinking, opening new perspectives, and providing them with tools to imagine different kinds of solutions. Additionally, it creates opportunities for local talent to partner with institutions and students, creating a unique collaboration that stimulates the local art scene.

As an artist, it has always been important to me to contribute to the community, and participating in this program gives me the opportunity to share my passion for art by working with minds of all ages and backgrounds. My approach to art is centered around unity, healing, and mending - creating a whole that is greater than the sum of its parts. These are the same principles I apply to teaching.

For this project with the Jewish Museum, we focused on stained glass windows, a theme that was adapted to different subjects in order to fulfill the standards of each institution. Each lesson plan was tailored to different age groups, which allowed me to create art projects specially designed to meet the desired goals.

Our programs took place in three different educational institutions - South Pointe Elementary School, Nautilus Middle School, and North Beach Elementary School. At South Pointe Elementary School, fourth-graders explored the intersection of science and art behind glass-making. They were tasked with creating their very own miniature stained glass windows out of pieces of colored glass in a variety of shapes, sizes, and colors. First, they received a printed grid on a piece of paper, and they worked on developing their design with colored pencils. Some students created patterns and other more representational images. After their designs were made, the students glued the pieces of glass onto a plexiglass sheet, and finally they added a frame in order to be able to hang it on a window. The students were very responsive to the lessons and really excited about the creative project. They were eager to learn about the science, materials, and tools used to cut and color glass, and the art project offered them a different way



of thinking and approaching a theme. The teachers were accommodating and supportive and also seemed to enjoy the activity very much.

At Nautilus Middle School, 6th-grade students learned about stained glass in the context of US History and its function as a historical record. The presentation was based on the importance of stained glass windows throughout history as a way of representing a symbol and communicating narratives. We used several examples of stained glass windows that have an American History thematic. As a project, they had to find a symbol that represents the US history for them, trace it onto a Polyester film sheet that they would later paint. It was extremely satisfying and fulfilling to be able to see students motivated and eager to participate in an art project. By painting historical events such as a battle or a war, students (especially those who respond better to visual images) had the opportunity to study detailed historic images closely, making it easier for them to understand the general atmosphere of the scene. It is often details and engaging activities such as these which make a difference in a student's ability to retain the information.

For North Beach Elementary, the project was based on third-grade geometry, specifically geometric shapes in different categories, recognizing different quadrilaterals, and fractions. We started the project by teaching them about different geometric shapes and categories and their presence in our day-to-day lives, later transitioning to the geometry involved in stained glass windows. Similar to South Pointe Elementary, for their project, North Beach students develop their own design on a printed grid using colored pencils. The design uses rhombus that would form different kinds of shapes by applying the knowledge of fractions. Upon completing their design, they would later glue glass pieces onto a plexiglass sheet, and eventually, add a frame in order to be able to hang it on a window.

Overall the STEAM + Program was an absolute success among students, who were very excited and responsive to the lessons. By creating different ways to approach a theme, students were pushed outside of their comfort zones and discovered new ways of thinking. Learning through art makes it easier for some children to absorb knowledge, they may remember more details, or interpret what they learn differently. As a teacher and art lover, there is no better feeling than seeing passion and curiosity for art ignite in students, and being a resource to help them navigate art as a gateway of self-expression.



DETAILED PARTICIPATION INFORMATION BY SCHOOL

BISCAYNE BEACH ELEMENTARY

2019-2020 STEAM Designation: GOLD
Past STEAM Designations: BRONZE
(2017-2018), SILVER (2018 - 2019)



STUDENTS SERVED

340



INTERACTIONS

31



**TEACHER/CLASS
ROOMS SERVED**

16

GRADE LEVELS THAT PARTICIPATED:

K 1st 2nd 3rd 5th

PARTNERS

The Bass Museum of Art (K)

Miami Beach Bots (3rd)

Miami City Ballet (1st)

Miami Beach Botanical Gardens (1st)



DETAILED PARTICIPATION INFORMATION BY SCHOOL

MIAMI BEACH FIENBERG FISHER K-8

2019-2020 STEAM Designation: **SILVER**
Past STEAM Designations: **BRONZE**
(2018 - 2019)



STUDENTS SERVED

345



INTERACTIONS

123



TEACHER/CLASS
ROOMS SERVED

14

GRADE LEVELS THAT PARTICIPATED:

K

2nd

6th

7th

8th

PARTNERS

The Bass Museum of Art (2nd)

Holocaust Memorial (7th)

Miami City Ballet (K)

Young Musicians Unite (6th & 8th)



DETAILED PARTICIPATION INFORMATION BY SCHOOL

MIAMI BEACH NAUTILUS MIDDLE

2019-2020 STEAM Designation: GOLD
Past STEAM Designations: SILVER
(2018 - 2019)



STUDENTS SERVED

347



INTERACTIONS

70



**TEACHER/CLASS
ROOMS SERVED**

12

GRADE LEVELS THAT PARTICIPATED:

6th

7th

8th

PARTNERS

The Bass Museum of Art (6th, 7th & 8th)

Jewish Museum of South Florida – FIU (6th)

Wolfsonian FIU (6th, 7th & 8th)

Young Musicians Unite (6th, 7th & 8th)



DETAILED PARTICIPATION INFORMATION BY SCHOOL

MIAMI BEACH SENIOR

2019-2020 STEAM Designation: SILVER
Past STEAM Designations: BRONZE
(2018 - 2019)



STUDENTS SERVED

420



INTERACTIONS

55



**TEACHER/CLASS
ROOMS SERVED**

17

GRADE LEVELS THAT PARTICIPATED:

9th

10th

11th

12th

PARTNERS

Bass Museum of Art (9th, 10th, 11th and 12th)

Holocaust Memorial (9th)

Jewish Museum of South Florida – FIU (10th, 11th & 12th)

Miami Theater Center (9th, 10th, 11th and 12th)

New World Symphony (9th, 10th, 11th and 12th)

Young Musicians Unite (9th, 10th, 11th and 12th)



DETAILED PARTICIPATION INFORMATION BY SCHOOL

MIAMI BEACH SOUTH POINTE ELEMENTARY

2019-2020 STEAM Designation: GOLD
Past STEAM Designations: SILVER
(2018 - 2019)



STUDENTS SERVED

367



INTERACTIONS

24



**TEACHER/CLASS
ROOMS SERVED**

18

GRADE LEVELS THAT PARTICIPATED:

1st

2nd

3rd

4th

PARTNERS

The Bass Museum of Art (2nd & 3rd)

Jewish Museum of South Florida – FIU (4th)

Miami City Ballet (1st)



DETAILED PARTICIPATION INFORMATION BY SCHOOL

NORTH BEACH ELEMENTARY

2019-2020 STEAM Designation: GOLD
Past STEAM Designations: Silver (2017-2018), SILVER (2018 - 2019)



STUDENTS SERVED

673



INTERACTIONS

96



**TEACHER/CLASS
ROOMS SERVED**

24

GRADE LEVELS THAT PARTICIPATED:

2nd

3rd

5th

PARTNERS

The Bass Museum of Art (2nd, 3rd and 5th)
Jewish Museum of South Florida – FIU (3rd)
Young Musicians Unite (5th)



DETAILED PARTICIPATION INFORMATION BY SCHOOL

TREASURE ISLAND ELEMENTARY

2019-2020 STEAM Designation: GOLD
Past STEAM Designations: SILVER
(2018 - 2019)



STUDENTS SERVED

423



INTERACTIONS

51



**TEACHER/CLASS
ROOMS SERVED**

20

GRADE LEVELS THAT PARTICIPATED:

K

1st

2nd

3rd

4th

PARTNERS

The Bass Museum of Art (2nd & 3rd)

Hack Shack (4th)

Miami City Ballet (K & 1st)



DETAILED PARTICIPATION INFORMATION BY ORGANIZATION

BASS MUSEUM OF ART

Using contemporary art as a catalyst for learning STEAM students created works which were displayed for friends and family at The Bass during our Free Family STEAM Celebration on February 23, 2020. Students worked together to solve world problems relevant to Miami Beach like climate change, sea level rise, and water pollution while creating art. Using SPHERO (a small programmable robot) to act as an engine for the student's kinetic sculptures. The student's visit to The Bass included tours of in-person and virtual exhibitions, as well as STEAM Labs and art activities.

PARTNERING SCHOOLS

Biscayne Beach Elementary
Miami Beach Fienberg Fisher K-8
Miami Beach Nautilus Middle
Miami Beach Sr. High
Miami Beach South Pointe Elementary
North Beach Elementary
Treasure Island Elementary

GRADE LEVELS SERVED

ALL GRADES



STUDENTS SERVED

1016



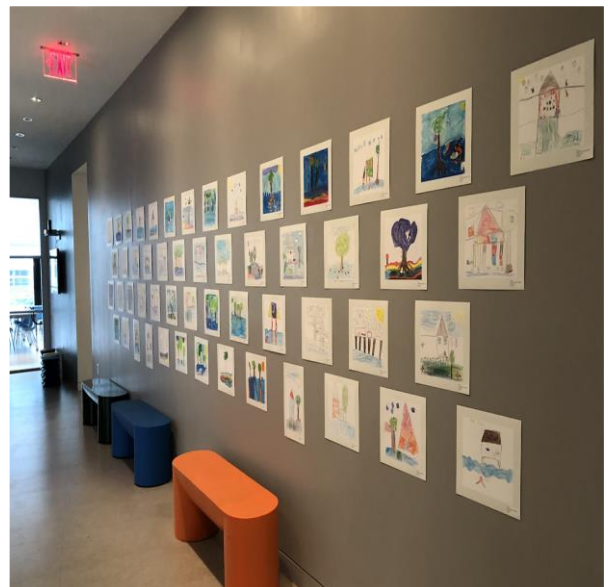
INTERACTIONS

54



**TEACHER/CLASSROOMS
SERVED**

46





DETAILED PARTICIPATION INFORMATION BY ORGANIZATION

HACK SHACK

HackShack's mission is to inspire curiosity and spark creativity through technology and play. In its digital sandbox, kids play with robotics, coding, design and learn critical thinking skills in a team-oriented environment. HackShack offered labs where kids explored technology to learn critical thinking and problem-solving skills. Throughout the partnership students learned how to design for print, web and prototyping (in 3D).

PARTNERING SCHOOLS

Treasure Island Elementary

GRADE LEVELS SERVED

4th



STUDENTS SERVED

73



INTERACTIONS

17



TEACHER/CLASSROOMS SERVED

4





DETAILED PARTICIPATION INFORMATION BY ORGANIZATION

HOLOCAUST MEMORIAL

The Holocaust Memorial utilized its permanent artistic exhibits, film, downloadable app, Holocaust Survivor encounters and student experiential visits to engage students. The Holocaust Memorial Miami Beach inspired students to fight against racism and genocide and provided an examination of what it means to be a responsible and respectful person to help create a tolerant, diverse, pluralistic society while integrating STEAM into their curriculum.

PARTNERING SCHOOLS

Miami Beach Fienberg Fisher K-8
Miami Beach Sr. High

GRADE LEVELS SERVED

7th 9th



STUDENTS SERVED

65



INTERACTIONS

10



TEACHER/CLASSROOMS SERVED

2





DETAILED PARTICIPATION INFORMATION BY ORGANIZATION

JEWISH MUSEUM OF SOUTH FLORIDA - FIU

Focused around the Jewish Museum of South Florida - FIU's eighty stained glass windows, STEAM students learned about the science and technology used to create this historic art form. Students participated in on-site and virtual field trips to the museum where they engaged with the symbols and imagery embedded within the museum's windows, and applied principles of design to create their very own stained glass windows through techniques of mosaic, collage, and reverse painting on acetate.

PARTNERING SCHOOLS

Miami Beach Nautilus Middle
Miami Beach Sr. High
Miami Beach South Pointe ES
North Beach Elementary

GRADE LEVELS SERVED

3rd 4th 6th 10th
11th 12th



STUDENTS SERVED

477



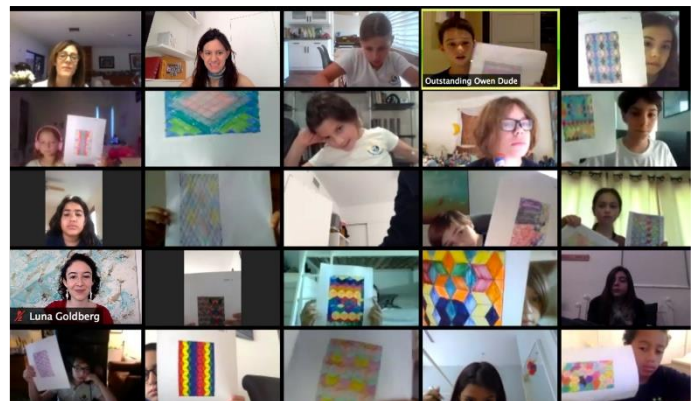
INTERACTIONS

21



TEACHER/CLASSROOMS SERVED

14





DETAILED PARTICIPATION INFORMATION BY ORGANIZATION

MIAMI BEACH BOTS

A team of fourteen Miami Beach Sr. High students helped launch a FIRST Lego League Jr. team and mentored third-graders at Biscayne Beach Elementary . Students learned basic robotics and coding as they designed, built and programmed their own buildings and created their own "BoomTown City" model using LEGO Education WeDo 2.0 kits. They also created Show Me posters to present what they learned at a Showcase Expo before family, friends and Miami Beach City and School leaders. The program focused on building interest in engineering, coding, architecture, arts and math through a real-world, hands-on challenge - that was solved by teamwork, critical thinking and imagination.

PARTNERING SCHOOLS

Biscayne Beach Elementary

GRADE LEVELS SERVED

3rd



STUDENTS SERVED

24



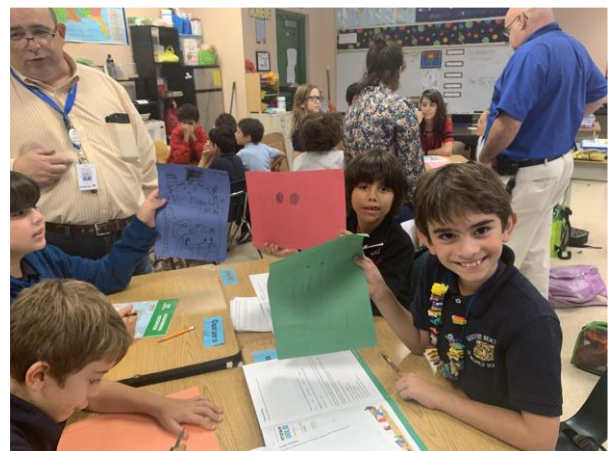
INTERACTIONS

11



TEACHER/CLASSROOMS SERVED

1





DETAILED PARTICIPATION INFORMATION BY ORGANIZATION

MIAMI BEACH BOTANICAL GARDENS

The Miami Beach Botanical Garden (MBBG) partnership through STEAM Plus was centered around learning about creating healthy habitats for all. Students were visited by gardeners and taught how to prep garden beds with soil by creating their own organic soil mix and compost. Classes planted pollinator, native and edible gardens to attract butterflies. Each student planted their own plant and measured it to record the growth. Due to COVID-19, MBBG transitioned to online learning on FlipGrid to provide virtual interactions focusing on the life cycle of the Monarch butterfly, including a video book reading done in the garden with butterflies fluttering by. MBBG provided a fourteen stop virtual tour, and coloring book by artist Sara Kaplan.

PARTNERING SCHOOLS

Biscayne Beach Elementary

GRADE LEVELS SERVED

2nd



STUDENTS SERVED

92



INTERACTIONS

4



TEACHER/CLASSROOMS SERVED

4





DETAILED PARTICIPATION INFORMATION BY ORGANIZATION

MIAMI CITY BALLET

Miami City Ballet Community Engagement dance instructors integrated dance as an enhancement to academic subjects in an effort to build culture and support social emotional competencies and be part of arts learning through interdisciplinary experiences. STEAM subjects were applied during interactions with the students in the program, with the help of classroom teacher- partners who enthusiastically provide what that content is in accordance with their units of study. Students learned about the many careers in production, costume design, organizational leadership, dance, architecture and cultural history. Some partnerships ended with a culminating showcase for family and friends to see all that was taught throughout the partnership. Others continued virtually through pre-recorded content on FlipGrid.

PARTNERING SCHOOLS

Biscayne Beach Elementary
Miami Beach Fienberg Fisher K-8
Miami Beach South Pointe ES
Treasure Island Elementary

GRADE LEVELS SERVED

K 1st



STUDENTS SERVED

459



INTERACTIONS

56



TEACHER/CLASSROOMS SERVED

23





DETAILED PARTICIPATION INFORMATION BY ORGANIZATION

MIAMI THEATER CENTER

Miami Theater Center (MTC) uses the arts not necessarily to generate more professional actors, dancers or artists, but to create critical thinkers who have curious minds that can lead productive lives. MTC launched their new season featuring various performances from local dance phenomenon Dance NOW! Miami. Students learned about the science behind human anatomy, muscle structure, animal life cycles, and the technology it takes to put on a performance. Students visited the theater and toured backstage after the performance to have a first-hand look at the engineering and technology behind-the-scenes.

PARTNERING SCHOOLS

Miami Beach Sr. High

GRADE LEVELS SERVED

9th 10th 11th 12th



STUDENTS SERVED

125



INTERACTIONS

6



TEACHER/CLASSROOMS SERVED

4





DETAILED PARTICIPATION INFORMATION BY ORGANIZATION

NEW WORLD SYMPHONY

MusicLab is a music mentorship program that brings New World Symphony (NWS) Fellows into the youth music programs of partner organizations in Miami-Dade County, including the orchestra program at Miami Beach Senior High School (MBSH). Participants received bi-monthly instrumental instruction from NWS Fellows in one-on-one and group coaching sessions. Fellows worked with school teachers and administrators to ensure their coaching builds upon each organization's established curriculum. In addition to regular instruction, Fellows assisted with preparations for upcoming orchestral competitions, or individual students' college and summer festival music auditions. As dedicated and responsible professional musicians, NWS Fellows served as positive role models for program participants. After the COVID closures of both NWS and MBSH, NWS collaborated with MBSHS to produce eight STEAM driven instructional videos produced by Fellows to be used to create assignments for the orchestra class.

PARTNERING SCHOOLS

Miami Beach Sr. High

GRADE LEVELS SERVED

9th 10th 11th 12th



STUDENTS SERVED

38



INTERACTIONS

9



TEACHER/CLASSROOMS SERVED

1





DETAILED PARTICIPATION INFORMATION BY ORGANIZATION

WOLFSONIAN - FIU

STEAM Zines is a hybrid program, combining the Wolfsonian's STEAM X Design and Zines for Progress programs. Using zines as the platform for exploration and expression, students selected a topic within the field of environmental responsibility that they researched and then addressed in their zine.

PARTNERING SCHOOLS

Miami Beach Nautilus Middle

GRADE LEVELS SERVED

6th 7th 8th



STUDENTS SERVED

45



INTERACTIONS

5



TEACHER/CLASSROOMS SERVED

1





DETAILED PARTICIPATION INFORMATION BY ORGANIZATION

YOUNG MUSICIANS UNITE

Young Musicians Unite (YMU) equips schools with trained instructors, lesson plans, instruments and all the necessary resources for a vibrant music education. As an organization that teaches music through an experiential and problem-solving based method, YMU's course materials aligned naturally with STEAM subject matter. While the primary focus of YMU courses is on "A" for the Arts, all 5 STEAM standards were explored throughout the duration of the YMU course, aiding schools in achieving their STEAM designation.

PARTNERING SCHOOLS

Miami Beach Fienberg Fisher K-8
Miami Beach Nautilus Middle
Miami Beach Sr. High
North Beach Elementary

GRADE LEVELS SERVED

5th 6th 7th 8th
9th 10th 11th 12th



STUDENTS SERVED

501



INTERACTIONS

258



TEACHER/CLASSROOMS SERVED

21

