



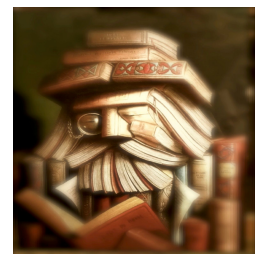
Cranston Summer Learning Initiative

2020 Data Book

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Cranston Public Schools
Building Cranston's Future One Child at a Time



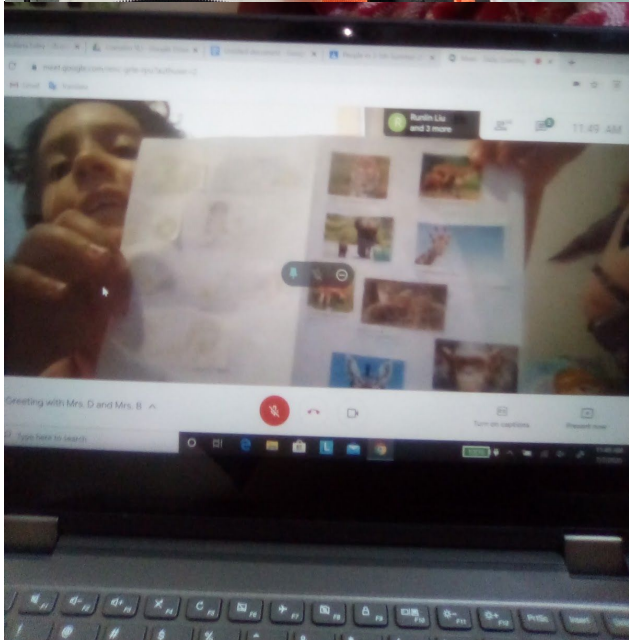


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Introduction

The Cranston Summer Learning Initiative is funded by United Way, Women's United and additional funders and partners of the Summer Learning Initiative (SLI). The Cranston Summer Learning Initiative is a collaboration of OneCranston's Youth Opportunity Zone and housed by the Cranston YMCA. The Youth Opportunity Zone is made up of the Cranston YMCA, Global Science and Envirotech, Ocean State Kidz Club, Cranston Public Schools: Edgewood Highland ES, Gladstone ES, Woodridge ES, Bain MS, Cranston 21st Century Cranston Learning Center (Cranston 21st CCLC), parents, youth leaders, volunteer mentors and more, who are all dedicated to expanding accessible and affordable out-of-school time programs in Cranston!

The data presented here has been collected from the pre and post surveys issued to each youth participant of the Cranston Summer Learning Initiative. We had a total of 67 participants, of which, 65 completed both the pre and post survey. The STEM (Science, Technology, Engineering, Math) Mentoring program served 1st-5th grade youth with 7th-12th grade mentors. This program was 100% virtual; it ran for six weeks, meeting daily, Monday-Friday. The Green STEAM (Science, Technology, Engineering, Art, Math) program served 6th-12th grade youth in addition to mentoring as an option. Green STEAM was mostly virtual but had an optional hybrid program, a group of high school youth, most of whom also mentored the 1st-5th grade youth, participated in in-person learning at the Cranston YMCA. These youth met a few times each week in small groups to explore Electronics/Coding, Environmental Sciences, ROV(Remote Operated Vehicles), and N95 Respirator Mask(3D Printing). As a whole these Cranston students in grades 1-12, demonstrated the same or very similar growth rates across all ages. Please note that some questions were differentiated based on the age group being surveyed: those attending grades 1-5 and those students attending grades 6-12.

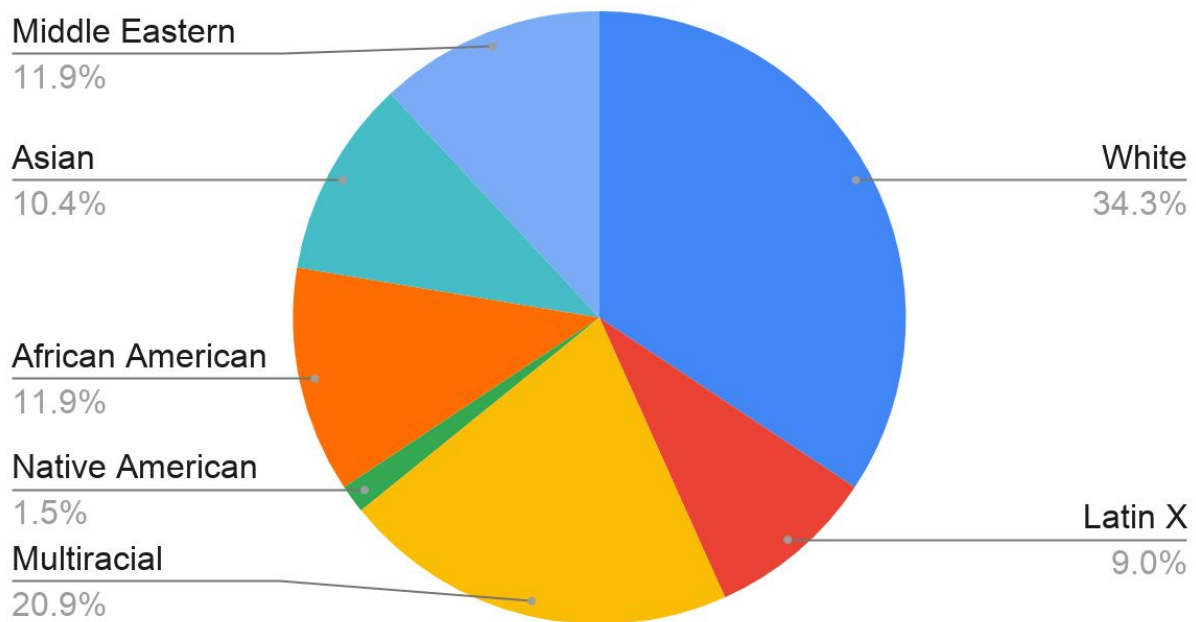
Diving deeper into the results from our pre and post surveys; the answers have been disaggregated noting the responses given by youth identifying themselves as white or those students identifying themselves as BIPOC (black, indigenous and people of color). The results presented represent significant inequalities, anything with a 2-5% difference in type of response. These findings are listed at the end of each main category, labeled "Equity in...". The goal is to continue to constantly analyze these and future findings to adjust program design and delivery to demonstrate an increase in BIPOC youth outcomes and decrease the achievement gap currently experienced when compared to their white peers.

Basic Demographic Data

67 youth in total, participated in Cranston STEM Summer Learning Initiative. This demographic information was taken from their sign up forms and included 100% participation.

Age range:	6-8 years old	9-10 years old	11-13 years old	14-17 years old
Percentage:	30%	31%	21%	18%
Gender Identity	Male 49%		Female 51%	
Hispanic or Nonhispanic	Hispanic 22%		Non-Hispanic 78%	
Participants by Cranston “Neighborhood”				
Edgewood 43.5%	RolfeSquare 19.4%	Stadium 12.9%	Arlington 9.7%	Alpine 6.5%
Meshanticut 3.2%	Garden City 1.6%	Oaklawn 1.6%	Stone Hill 1.6%	Ridgewood 0%

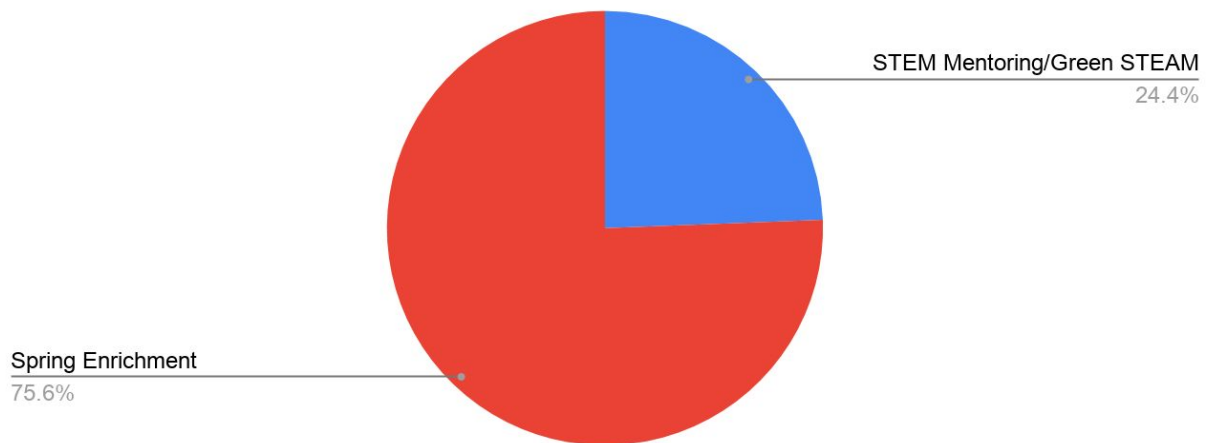
Race Identity of SLI Youth



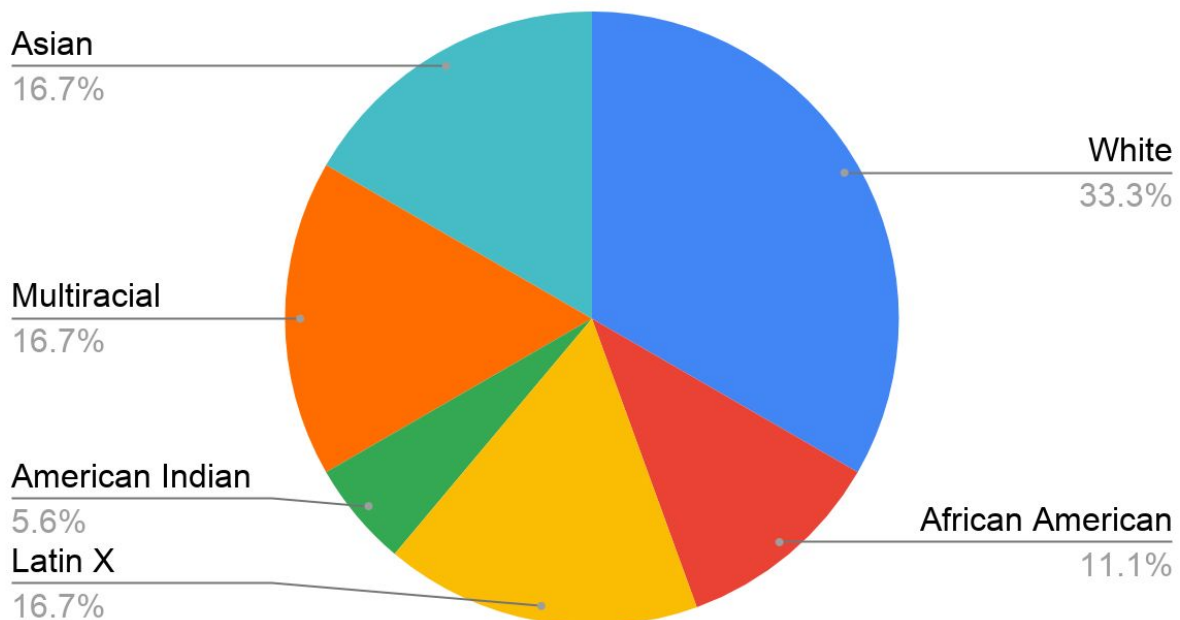
Estimate:

- 57% of camp participants are low-income which was based on previous or current attendance at a Title 1 school; Title 1 schools are designated by the poverty level of the students and their families.
- 25% of participant families do not use English as their main language at home. Youth were not prompted to tell us what language is spoken at home; however, based on the youth who answered we know these families speak an array of different languages including, but not limited to, Spanish, Chinese, Cambodian and Arabic.

60% of youth previously participated in Out-of-school time efforts:



Cranston SLI instructors and mentors: race and ethnicity



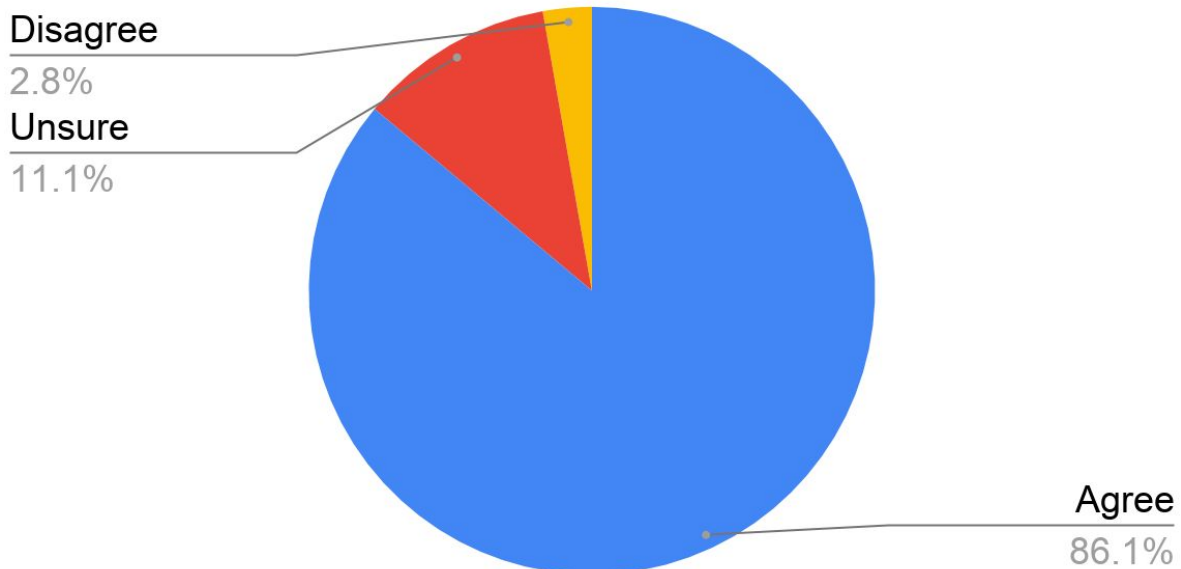
Social-Emotional Growth

To measure positive relationships; youth were asked the following questions:

1. "I get along with kids/peers my age"
2. "I get along well with adults"
3. "There are people who care about me"
4. "I feel good about myself"
5. "I make good choices"
6. "How are you feeling right now, during COVID-19? How can we help or what can we do to make your time at home a little better?"



Youth experienced an overall 2.3% increase in their Social-Emotional well-being



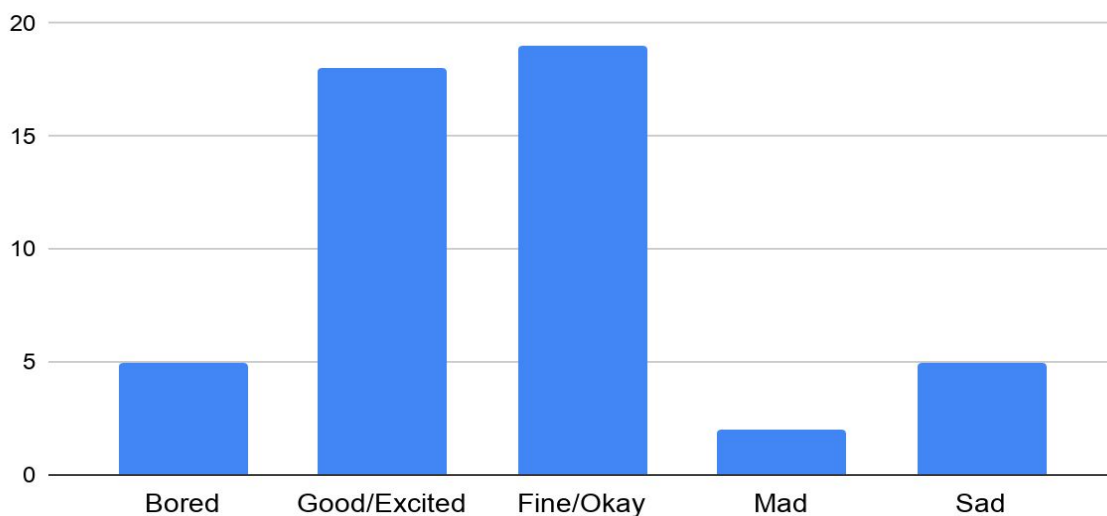
This graph compares all the responses to the questions noting youth participant self-report on feelings of social-emotional well-being from the pre and post camp surveys.

- ★ 2.3% increase in social-emotional well-being was noted on the post camp survey data.
- ★ 7 out of 10 youth felt that they get along well with adults by the end of the summer.
- ★ 95% of youth reported that there are people who care about them on the post camp survey data.
- ★ 1st-5th grade participants experienced...
 - 6% increase in feeling that there are people who care about them.

- 9% increase in feeling they make good choices.
- ★ 100% of the peer mentors agreed that they helped to improve their mentees' social skills.
- ★ 6th-12th grade participants experienced...
 - 5% increase in the feeling that they get along well with their peers.
 - 5% increase in feeling good about themselves.



How youth were feeling about COVID-19 upon entering camp

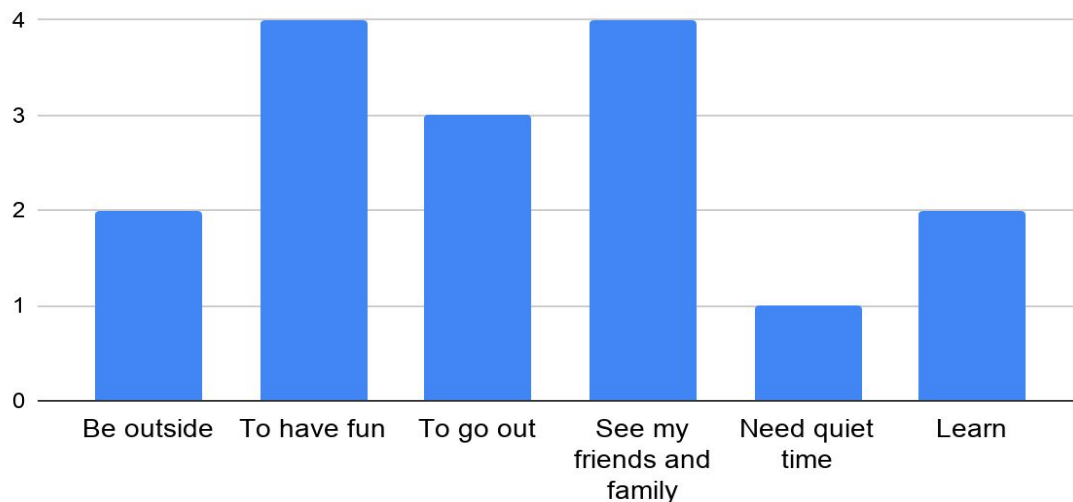


- ★ The graphic above represents youth responses to these two open-ended questions,
 - 1) How are you feeling right now, during COVID-19?
 - 2) How can we help or what can we do to make your time at home a little better?

The results were summarized in the graph above and the graph on page 8. Some key statements stood out for our team:

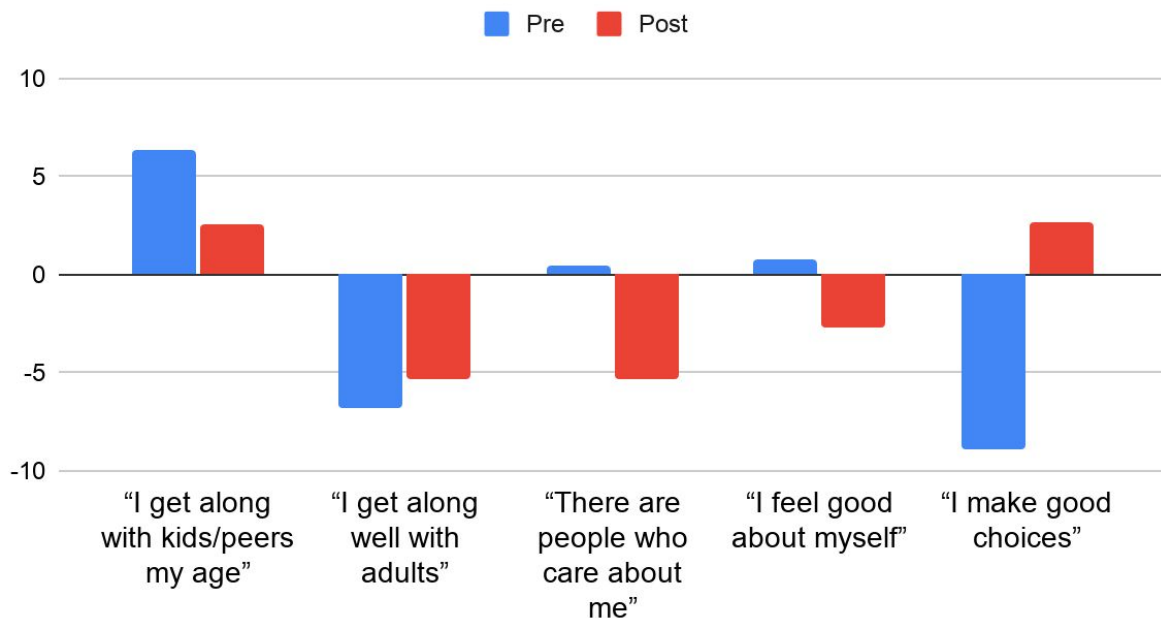
- "I am feeling a little bit sad but I have gotten out a lot to ride my bike with my mom or rollerblade with my brother or fish with my dad. I think that this virtual stem camp will give me something else to do and that is what will improve this pandemic."
- "Sad that I can't see my friends. I like doing this program....legos would make it better!"
- "Keep teaching me"
- "I'm feeling fine. I get to talk to my friends and family a lot and my family is staying very safe."

What will make your summer time during COVID-19 a little better?



Equity in STEM's Social-Emotional Growth:

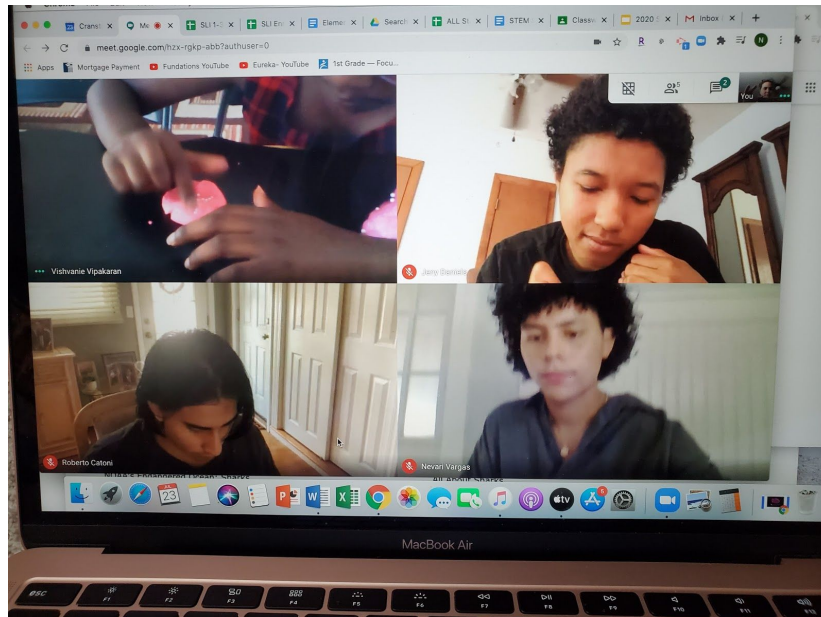
BIPOC youth in comparison to white youth as a baseline "0"



★ BIPOC youth entered camp, (based on pre-survey results as compared to their white counterparts) feeling:

- 6% were more confident in their ability to get along well with peers their age
- 7% were less confident in their ability to get along well with adults
- 9% were less confident in their ability to make good choices

- ★ BIPOC youth completed camp (based on their post survey results compared to their white counterparts) feeling:
- While BIPOC youth experienced a 2% increase in confidence in their ability to get along with their peers
 - White youth experienced a 6% increase
 - 2% increase when noting confidence in getting along well with adults
 - BIPOC youth did see a 3% decrease in youth who disagree with “there are people who care about me”
 - White youth experienced a 6% increase in agreement with the statement, resulting in 100% of the white youth attending the camp feeling there are people who care about them
 - 3% decrease among BIPOC youth feeling good about themselves
 - 7% increase in expressing confidence in the ability to make good choices



Academic Attitude Toward STEM/STEAM

(Science, Technology, Engineering, Art, and Math)

Academic Attitude measures a young person's confidence in their ability to succeed using statements that reveal positive feelings about content and activities often taught in school.

Youth respond to the following statements:

"Doing well in school matters to me"

"I am doing well in school"

"I like building things"

"I'm good at building things"

"I like Math"

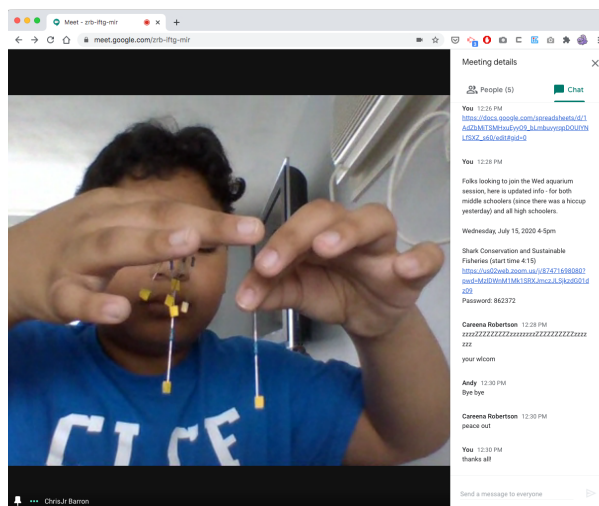
"I'm good at math"

"I care about endangered animals"

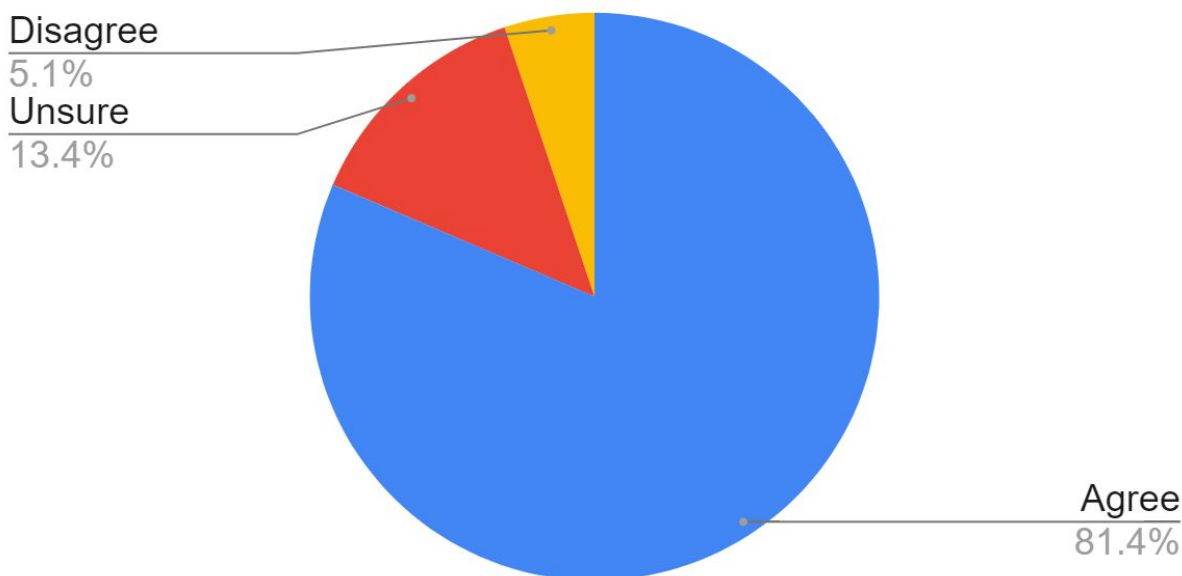
"I know ways to help endangered animals"

"Science is something I get excited about"

"I like science more now than before
STEM Mentoring/Green STEAM"



Youth experienced an overall growth of 5% in their attitude towards STEM/STEAM academics

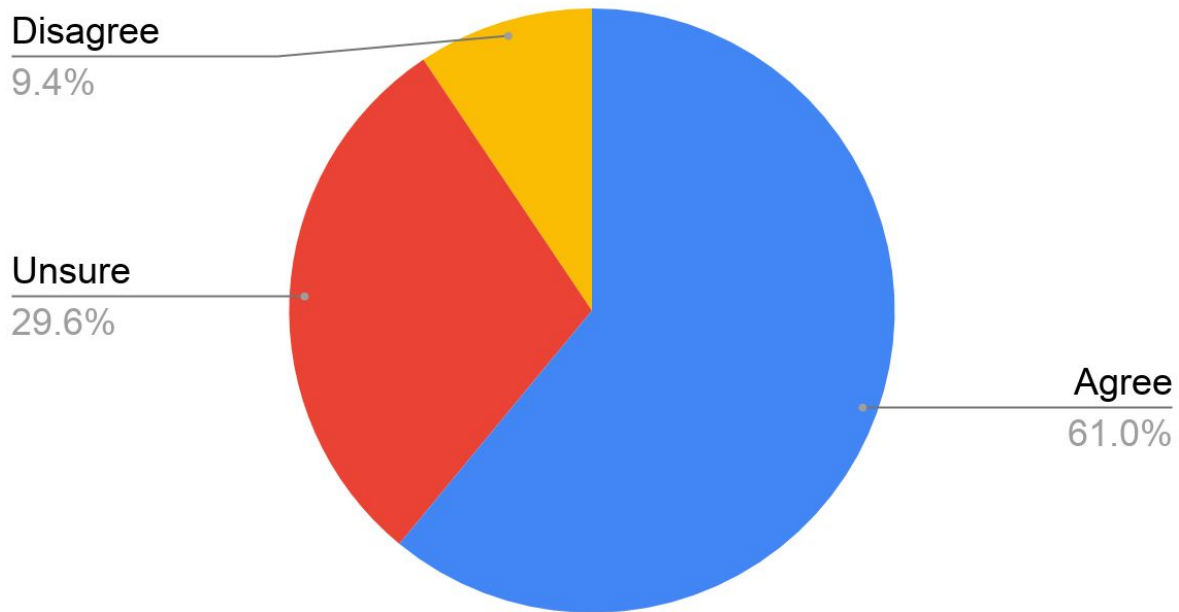


- ★ 92% of 1st-12th grade youth agree that "Doing well in school matters to me"
- ★ 9% of 1st-12th grade youth experienced an increase in feeling they are doing well in school

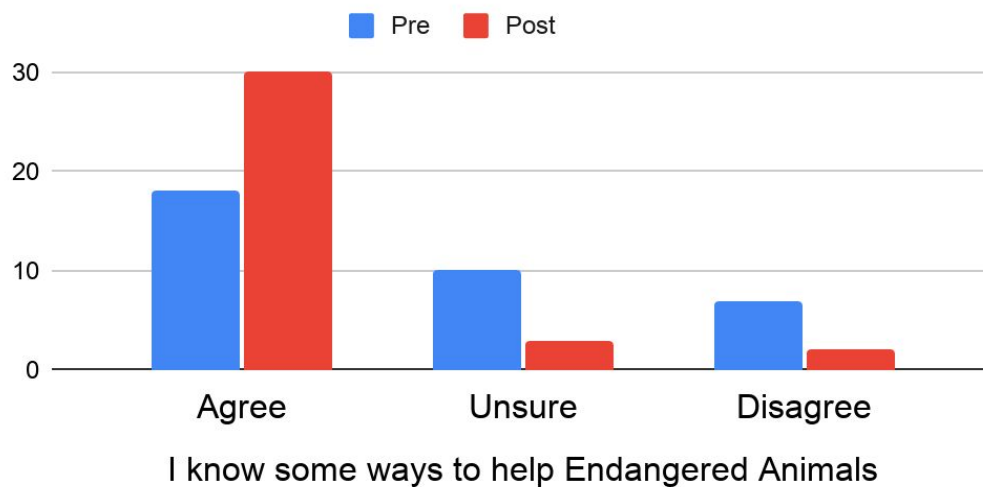
- ★ 2% increase in 1st-12th grade youth agreeing with “I am good at building things”
- ★ 66% of 1st-12th grade youth like math
- ★ 75% of 1st-12th grade youth agree that “science is something I get excited about”

Next Generation Science Standards (NGSS):		
Academic discipline	Standard	Curriculum topics
Engineering Design	Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.	Bearly Growing Sea Turtles ROV (remote operated vehicle) Investigations into submersible-aerial prototypes Hydroponic-Electronic Growing Units
Matter and Its Interactions	Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	Seed Need! Meet Elisa the Honey Bee! COVID-19 inspired modified respirators and prototyping Biology, Microbes, Therapies, Preventions
Earth and Human Activity	Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.	Polar Bears in Phoenix? Frogs Basic and Advanced Electronics Health and Safety Preparedness Environmental Sciences
Common Core Standards:		
English Language Arts	-Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. -Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. -Use knowledge of language and its conventions when writing, speaking, reading, or listening.	Does Wildlife Sell? Rare Bird Eggs for Sale Sharks “Critical Condition” Health and Environmental Connections
Multi-Language Learners Best Practices:		
Instruction for Multi-Language Learners	Focus on academic and conversational english language, literacy, writing, speaking and listening Increase comprehensible input and language output Promote classroom interaction Stimulate higher order thinking and the use of learning strategies	

"I like science more now than before..."



34% of 1st-5th grade youth increased their comprehension of ways to help endangered animals

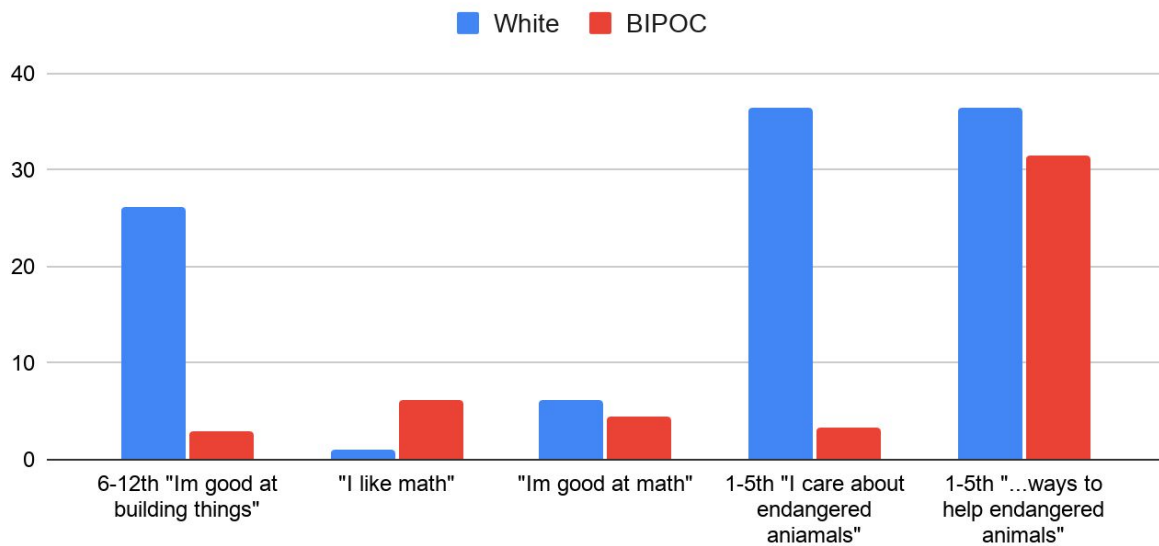


- ★ 1st-5th grade experienced...
 - 14% increase in caring about endangered animals
 - 11% increase in feeling that they are good at math
- ★ 6th-12th grade experienced...
 - 4.5% increase in youth who like building things
 - 9% decrease in feeling that they are good at math



Equity in STEM/STEAM Academic Attitude:

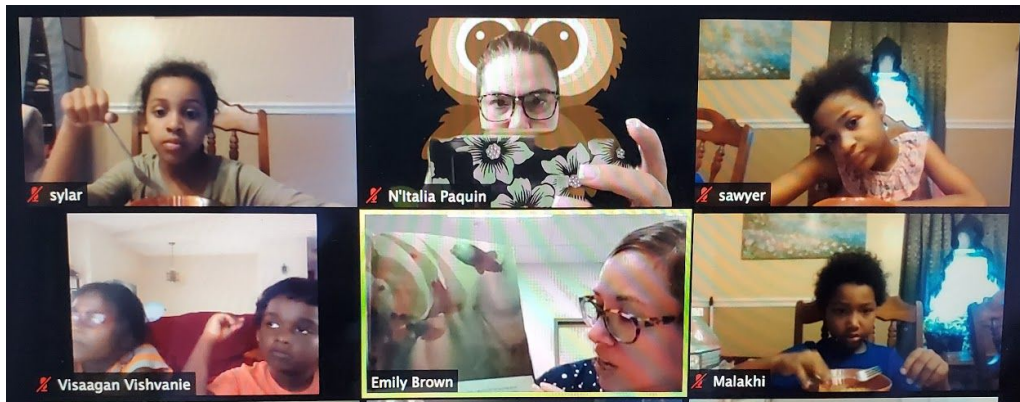
Percentage of growth made by our white and BIPOC youth



★ BIPOC youth entered camp, (based on pre-survey results as compared to their white counterparts) feeling:

- On average, 14% of BIPOC youth are behind in a positive attitude around STEM based academics
- Though youth feel similarly of the importance of doing well in school

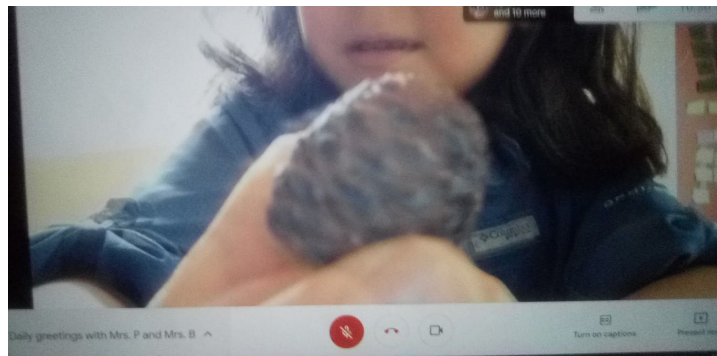
- 7% more of BIPOC youth feel less confident in how well they are doing in school
- Though youth generally enjoy building things
 - BIPOC youth have 16% less confidence in being good at building things
- Despite 18% of BIPOC youth knowing fewer ways to save endangered animals
 - 24% more BIPOC youth care about endangered animals
- 14% less BIPOC youth like math
- 17% more BIPOC youth do not agree with, “ I am good at math”
- 25% more BIPOC youth disagree that “Science is something I get excited about”



- ★ BIPOC youth completed camp (based on their post survey results compared to their white counterparts) feeling:
 - BIPOC experienced a 7.5% increase in agreeing with “I do well in school”
 - 6-12th grade BIPOC youth’s confidence to build things increased by 3%
 - BIPOC youth experienced an over 30% increase in knowing ways to save endangered animals
 - 4% more BIPOC youth agreed with; “I am good at math”
 - Despite a 3.5% decline in youth overall feeling that “Science is something I get excited about,” BIPOC youth experienced a 2% increase
 - On average 13% of BIPOC youth are behind in a positive attitude around STEM based academics compared to their white counterparts
 - A 1% average decrease in the gap

★ Measuring English Language Learners:

- Increased by 24% on their knowledge of ways to save endangered animals
- Doubled in the numbers of ELL youth feeling they are good at math



STEM Mentor and Green STEAM Program Growth

Measuring interest and reflection of the programs, youth were asked the following questions:

I would like to have a STEM/STEAM based career in the future

"I like spending time with my mentor"

"I would like to have a mentor again sometime"

Are you glad you did STEM/STEAM? If yes, Why?

"I would participate in Green STEAM again" Only If...

"What did you like best"

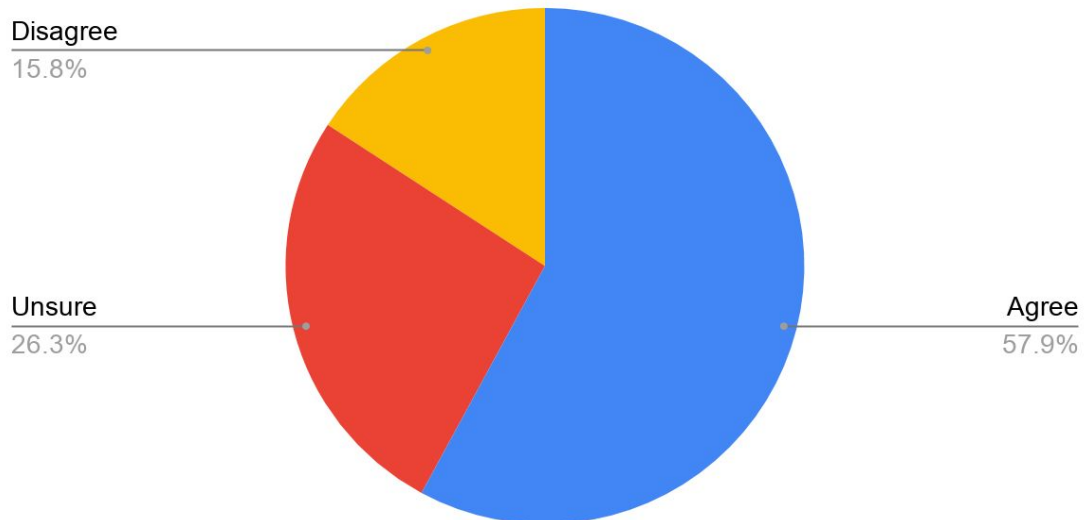
Where do you see yourself... in 5 years, ...in 10 years

"What would you improve"

Other comments



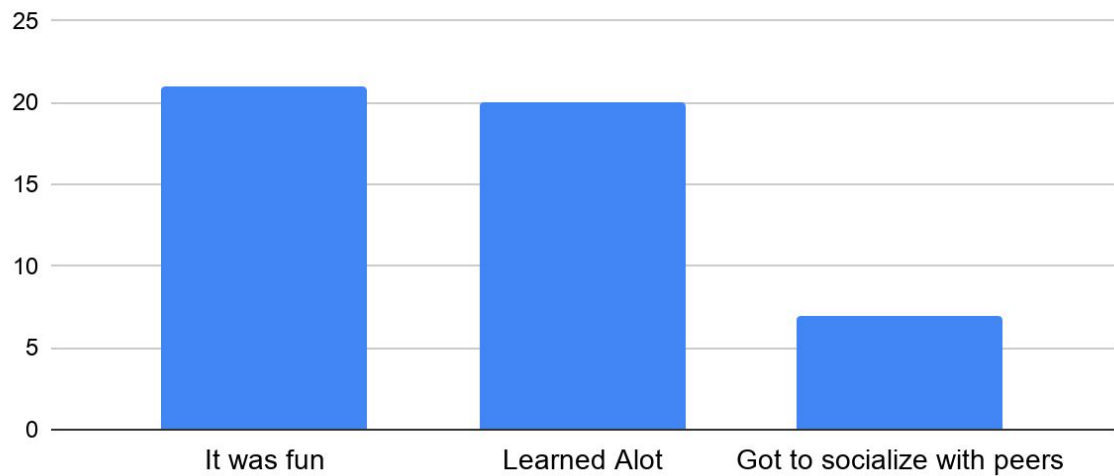
1st-12th grade youth were prompted; I would like a STEM career in the future



★ 1st-5th grade youth experienced...

- 17% more 1st-5th grade youth know whether or not they would like a STEM career in the future
- 92% of 1st-5th grade youth enjoyed spending time with their mentor
 - 75% would like a mentor again sometime

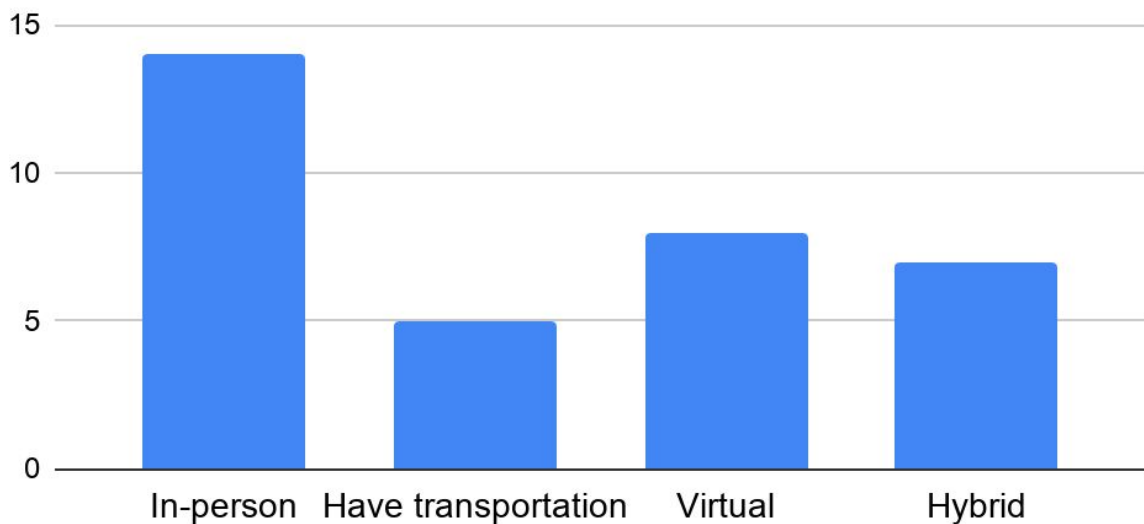
95% of 1st-12th grade youth are glad they completed STEM, here's why:



Why youth enjoyed completing SLI STEM Mentoring/Green Steam

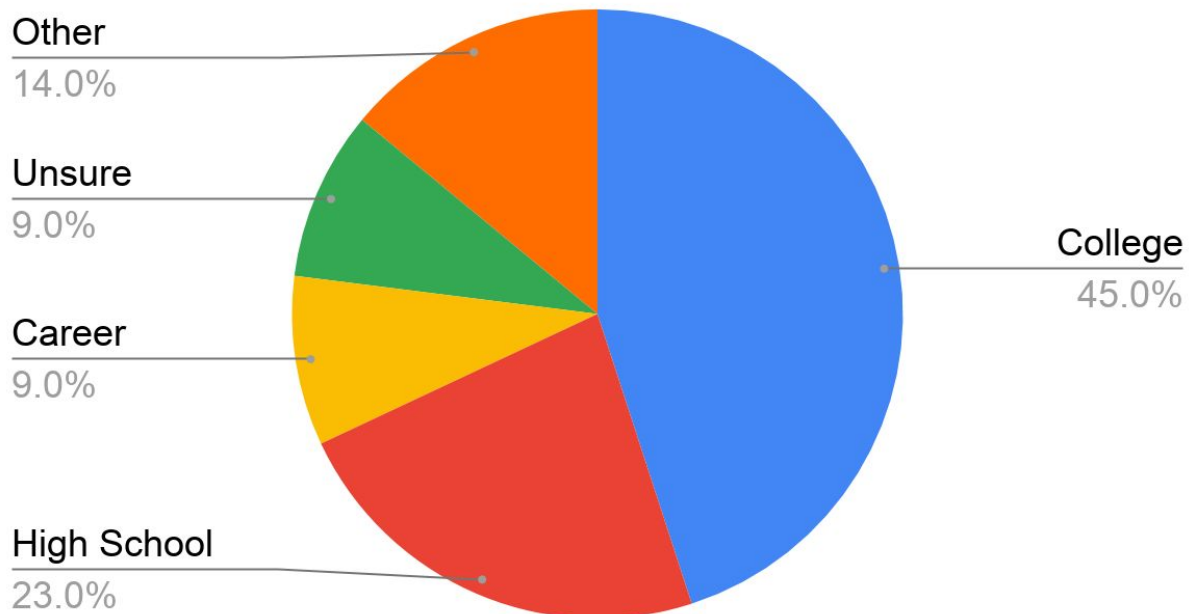
★ 6th-12th grade youth were prompted the following questions with each graph showcasing their responses:

86% felt neutral, agreed or strongly agreed with, "I would like to participate again" If...

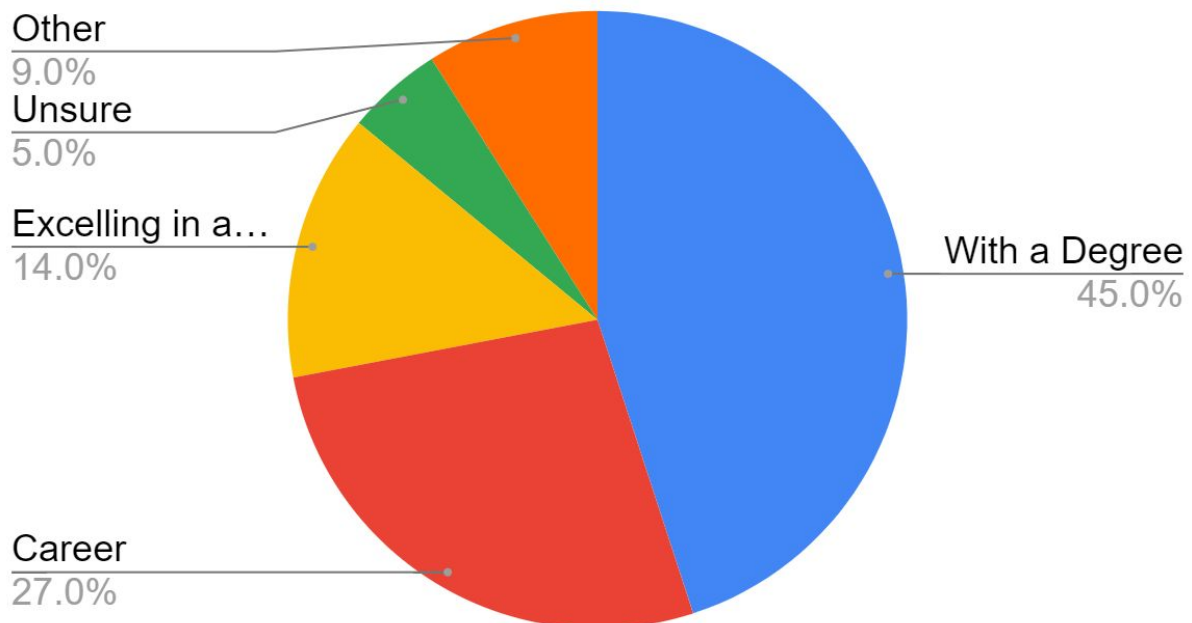


For those looking to continue participation; they would particiate in the future if:

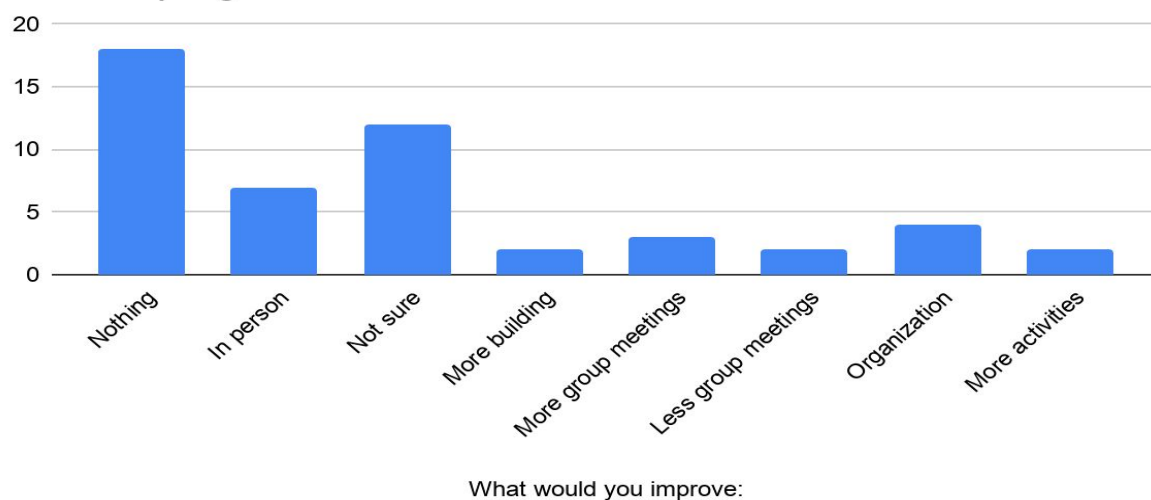
Where do you see yourself in 5 years?



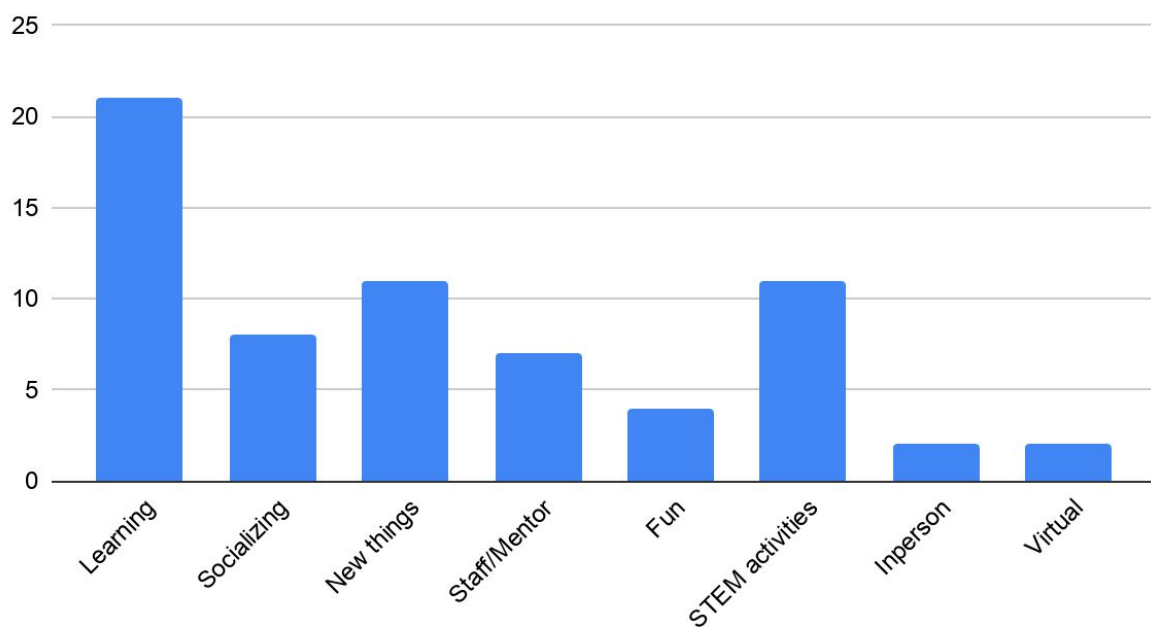
Where do you see yourself in 10 years?



1st-12th grade was asked; What would you improve about the summer program:



What 1st-12th grade youth liked best about the program



Additional comments from youth, staff and mentors:

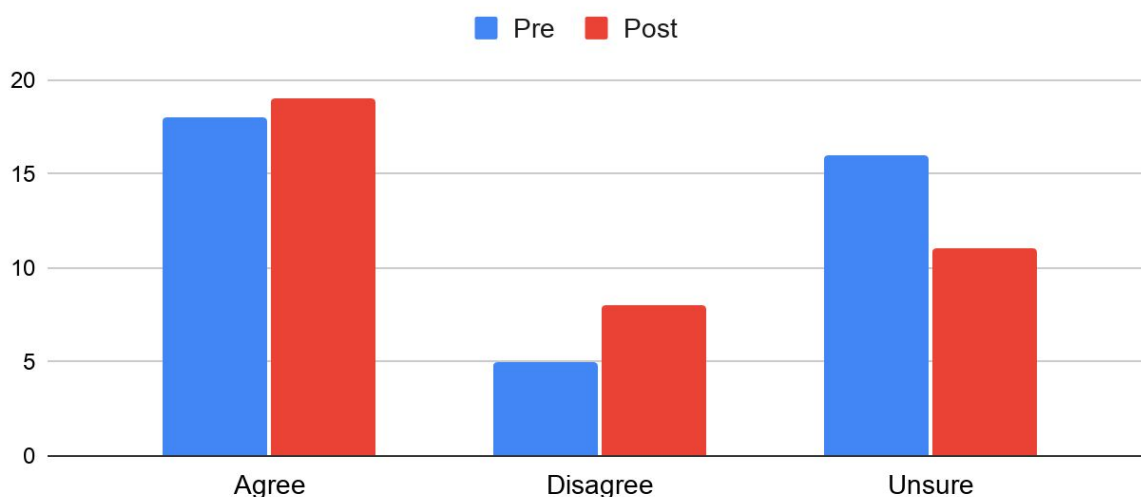
"I don't want camp to end..."

"I loved seeing students dig into their work and get their hands dirty. I especially loved the moment when multiple students were testing their hydroponics systems in their

respective family bathrooms, and caused simultaneous traffic jams -- we had to take a break so everyone's families could use the bathroom, lol."
"I really enjoyed this program and would love to do it again during the school year and summer!"
"Thank you for the experience"
"Doctor J is a great person and truly cares about the kids"
"Parents love the program as much as their child and want to be more involved"
"I really enjoyed the final presentations. The kids were so happy to share what they learned during camp... I also enjoyed the Kidtopia. It was nice to meet the parents and kids in person and see them having a fun time with one another."
"I love STEM summer program"
"I feel that it was a successful summer and felt lucky to work with the entire team."

Equity in STEM Mentoring and Green STEAM Program Growth:

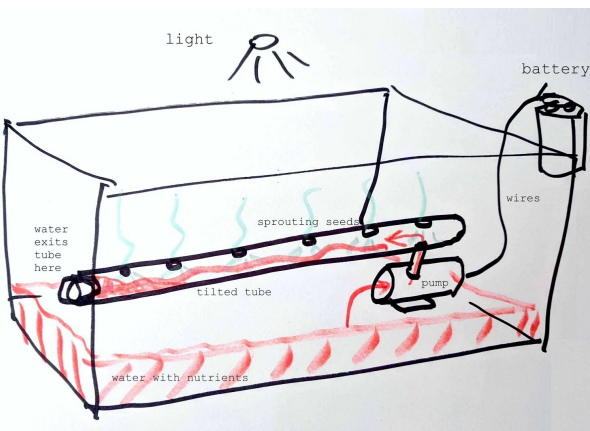
BIPOC youth change in their surety for a STEM career



I would like to have a STEM (science, technology, engineering or math) job in the future

- ★ BIPOC youth entered camp (based on their pre survey results compared to their white counterparts) feeling:
 - 13% more uncertainty of whether or not they wanted a STEM career in the future compared to their white counterparts
- ★ BIPOC youth completed camp (based on their post survey results compared to their white counterparts) feeling:

- 17% of BIPOC youth changed from being unsure to sure in their desire for a STEM career in the future; compared to a 10.5% increase overall.
- BIPOC youth enjoyed their time with their mentor as noted 7% more often than their white counterparts in the post survey.
- BIPOC youth were glad they completed the program because they were able to socialize as noted 10% more often in the post survey.



This experimental Hydroponic Grower was to inspire youth imagination, use “Hands-On” skills to explore Environmental Sciences and Climate Change.

Findings:

We are so proud of the work that has been done this past summer. Covid-19 remains to be a challenge for, not only our programs, but for our families and youth. Despite this overwhelming challenge, we were able to show growth in our youth who participated all six weeks of the summer, virtually.

Despite what we consider to be great success for our first collaborative summer program during COVID-19, there is still much to be done. Based on our “Equity in...” results, we understand we must continue to improve our programs to become more equitable. The achievement gap is defined as the academic gap between BIPOC and white youth; whereas BIPOC experience significantly lower test scores and outcomes than that of their white counterparts. According to the results found from this summer we see that our BIPOC youth experience so many of the same feelings as their white counterparts. ALL youth have similar feelings of themselves, of the effects of COVID-19, of wanting an education, achieving a degree and accomplishing their ideal of “success”. Yet, BIPOC populations experience more negative outcomes in their academic, career, financial and health goals. We understand this is a systemic issue and must ask ourselves; how are our systems holding back BIPOC youth and families, how do we remove these barriers, how do we collaborate to remove these barriers across multiple systems? In the Academic Attitude section, we find that we managed to decrease this gap, according to our measurements by 1%; this is significant when we take into consideration that camp was 98% virtual and only part of the summer. Looking through a positive lens we believe we can continue to make greater impacts on decreasing the achievement gap through a combination of increased, collaborative opportunities.

Recommendations:

1. Program team and collaborative attend trainings and discussions around racial equity and antiracism to harbor a more inclusive culture.
2. Build a youth advisory committee to collect more qualitative data and lead program changes.
3. Build out collaborative members to include more systems and organizations that are willing to grow with OneCranston’s Youth Opportunity Zone.

We would love to hear your suggestions and feedback please email Caitlyn Blankenship of OneCranston cblankenship@comcap.org and Andrea Champagne of the Cranston YMCA achampagne@gpymca.org .

Thank you!

A special thanks to everyone for their partnership, support and involvement with this program and collaborative!

United Way, Women's United, Rhode Island Afterschool Network (RIAN), Cranston YMCA and staff, OneCranston, Youth Opportunity Zone, Global Science and Envirotech, Inc., Ocean State Kidz Club, Edgewood Highland Elementary, Cranston Public Schools, Cranston 21st CCLC, Mystic Aquarium, Searesearch Foundation, Roger Williams Zoo, Cranston Public Library, Knight Consulting LLC, Big Cheese and Pub, CCAP, Cranston HEZ, University of Rhode Island, Department of Mechanical, Industrial, and Systems Engineering, Public Lab.

Thank you to the individuals who committed their time, effort and support!

Mariana Cannon, Tammy Eaton, Ronald Hazel Jr, Greg and Frances Thuotte, Annette Bourne, Maria Ross, April Barron, Andrea Champagne, Jess Tate, Maryclaire Knight, Nicole Harvey, Emily Brown, Angiley Merced, Dr. Jesse Jordan, The URI College of Engineering Advanced Systems Lab- Dr. Gretchen A. Macht, Ph.D. and Graduate Engineers, Mr. Jeffery Warren, Wilmer Chinchilla, Benjamin Conn, Marlene Gamba, Nitalia Paquin, Sue Dean, Maryann Policelli, Caitlyn Blankenship, Betty Messa, Roberto Martin Catoni, Daniel Miranda Duarte, Nevari Vargas, Diamond Maslen-Lallier, Avery Hart, Grace Swinski, Berta Santes, Nancy Serpa, Brooke Havens, Peggy Lamb, Petra Jenkins, Steven Stycos, Anita Oliver, Marlene Guay, Lisa Kirshenbaum, Donna-Marie Frappier, Joe Rotz, Sarah Decosta, Jarred Seaback, Dave Palumbo, Bryan Moss

A special thanks and dedication to Ayana Melvan, you are a strong and passionate woman! Your work and dedication to youth has inspired our commitment to racial equity and youth leadership.

