



YDC Summer Camp Report 2026



Prepared By.
Reagan Flowers, PhD
Audrey Okwuonu
C-STEM

Prepared for.
Charla Phillips,
Executive Director,
YDC

Table of Contents

Partner Message	03
Executive Summary	04
Participant Profile	05
Pre-Camp Quantitative Findings	06
Post-Camp Quatitative Outcomes	08
Qualitative Impact	10
Recommendations for Future Programming	12
Survey Methodology	13
Conclusion	16





Partner Message

Dear YDC Partner,

At C-STEM, we believe all children should have the chance to explore their creativity, build confidence, and reach their potential through hands-on STEM activities. During our 2026 YDC Glow & Flow Summer Camp, students were encouraged to think in new ways by blending engineering, coding, music, art, and innovation into fun and engaging projects that sparked curiosity.



The YDC Glow & Flow Summer Camp gave students the chance to build, create, explore, work together, and share ideas as they learned how science and technology fit into daily life. By teaming up with the Youth Development Center, we built a space where students could try new things, learn from mistakes, and see that they can become the innovators of the future. Thank you for supporting young people and making it possible for students to gain the knowledge, skills, and confidence they need to succeed in STEM in the future.

Reagan Flowers, PhD

Founder and Executive Board Treasurer
C-STEM Teacher and Student Support Services, Inc.

Executive Summary

The **Youth Development Center (YDC) Glow & Flow Summer Camp**, powered by **C-STEM Teacher and Student Support Services, Inc.**, offered students a hands-on STEM experience that combined creativity, collaboration, engineering, coding, and design. Through the **YDC Glow & Flow Summer Camp** theme, students engaged in neon-inspired projects, explored scientific concepts, programmed technology, solved engineering challenges, and expressed creativity through collaborative, project-based learning.

This report summarizes findings from the camp's pre- and post-program student surveys, providing insights into participant demographics, perceptions, learning outcomes, and program impact. The evaluation measured changes in students' interest in STEM, confidence, engagement, and overall satisfaction with the camp.

Seventy-four **students participated** in the camp. Seventy completed pre-program surveys, and 57 completed post-program surveys across PreK–2nd and 3rd–5th grade cohorts. The C-STEM Glow & Flow camp activities took place July 13th-14th and 20th-22nd. These responses offer a clear view of students' initial perspectives, camp experiences, and changes in attitudes toward STEM over the summer.

Survey results show that students responded enthusiastically to the YDC Glow & Flow Summer Camp learning environment. Hands-on activities integrating engineering, coding, robotics, circuits, chemistry, music, design, and problem-solving encouraged active participation and curiosity. Students consistently enjoyed building, creating, experimenting, and collaborating with peers while developing new STEM skills.

In addition to building technical skills, the camp fostered essential competencies such as communication, teamwork, perseverance, critical thinking, creativity, and confidence. These experiences highlight the value of immersive, inquiry-based STEM education in helping young learners see themselves as capable innovators and problem solvers.

The report also highlights participant demographics, favorite learning experiences, student satisfaction, and qualitative feedback from open-ended survey responses. These findings underscore the importance of equitable access to high-quality STEM enrichment that inspires students from diverse backgrounds to pursue future education and careers in science, technology, engineering, and mathematics.

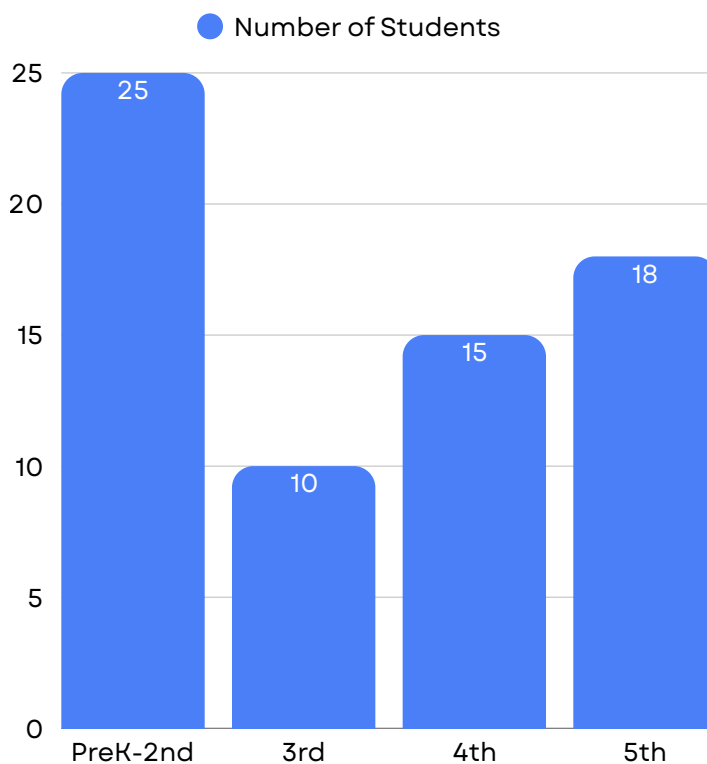
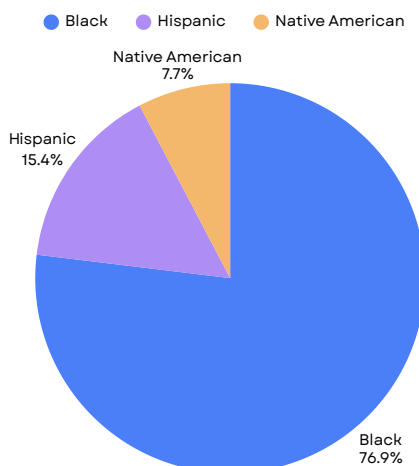
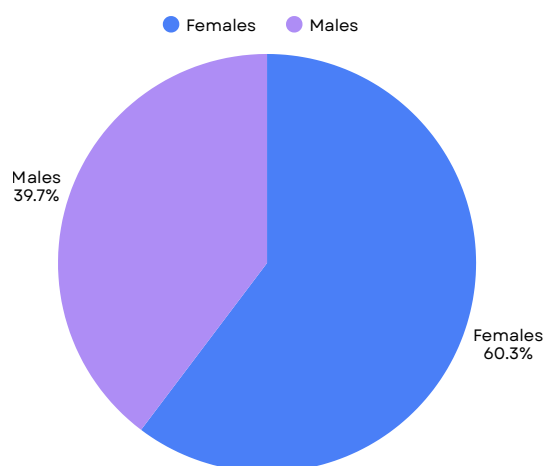
The Youth Development Center's partnership with C-STEM demonstrates the significant impact that collaboration among community organizations, educators, families, and supporters can have in expanding opportunities for young people. Continued investment in programs like the YDC Glow & Flow Summer Camp will help more students gain the confidence, skills, and inspiration needed to succeed in a technology-driven world.

This report celebrates the achievements of participating students, recognizes the dedication of educators and partners, and provides evidence of the meaningful outcomes resulting from intentional, engaging, and equitable STEM learning experiences. We hope these findings encourage continued collaboration and investment in preparing the next generation of innovators, creators, and leaders.

Participant Profile

Participant Demographics

Twenty-five PreK–2nd and forty-five 3rd–5th grade students completed the pre-camp surveys, and seventeen PreK- 2nd grade and forty 3rd- 5th grade students completed the post-camp survey.

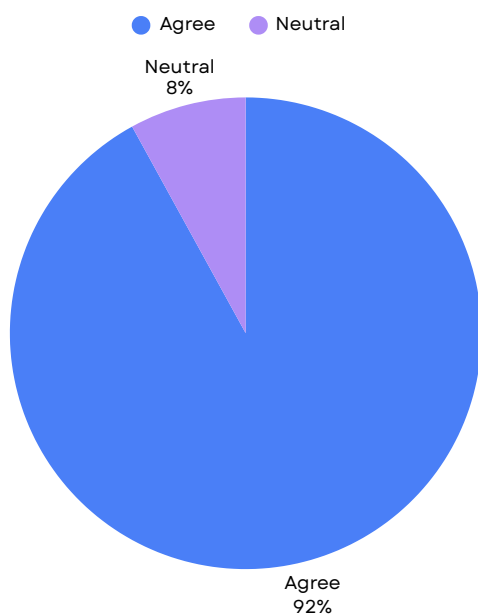


Pre-Camp Quantitative Findings

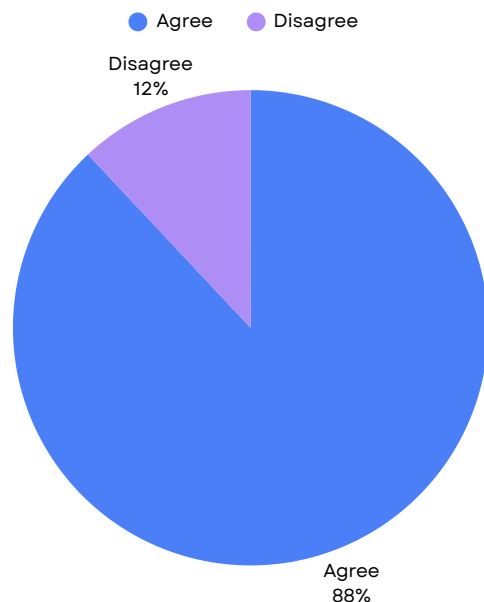
Students began camp with positive attitudes toward STEM, though their prior exposure varied. Survey responses show strong enthusiasm for hands-on learning, especially in science, engineering, technology, and creative activities. These findings provide a solid baseline for assessing changes in STEM confidence, career interest, and engagement after the YDC Glow & Flow Summer Camp.

Select PreK-2nd Grade Findings

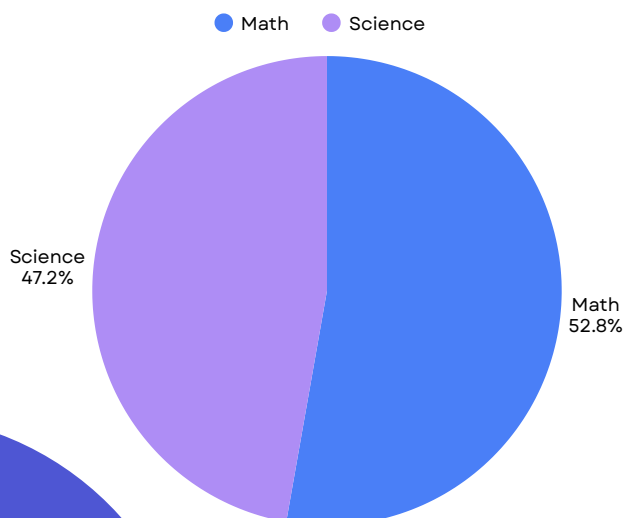
I like going to summer camps that have STEM activities.



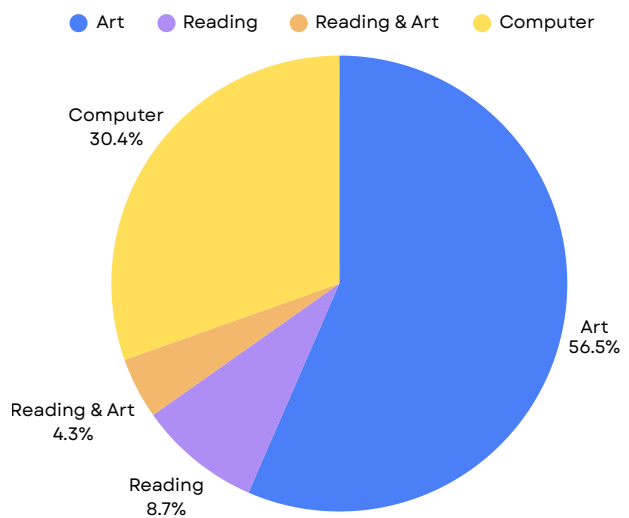
I am excited about the camp activities.



I like...



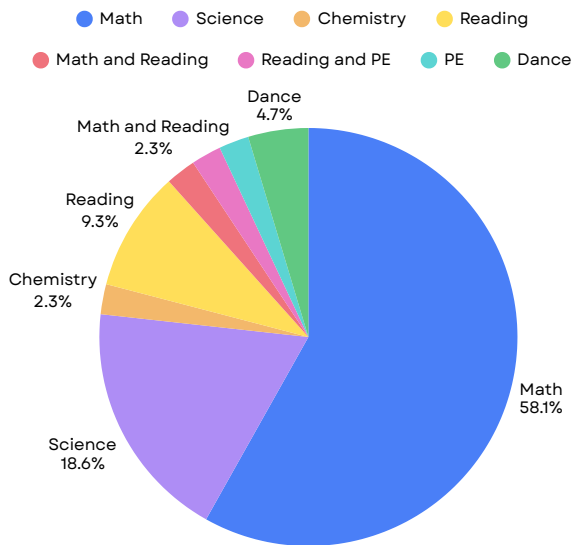
The activity you enjoy doing the most...



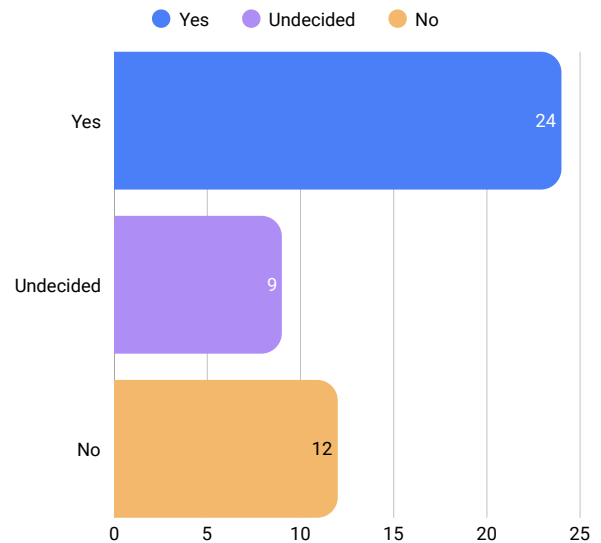
Pre-Camp Quantitative Findings Continued

Select 3rd-5th Grade Findings

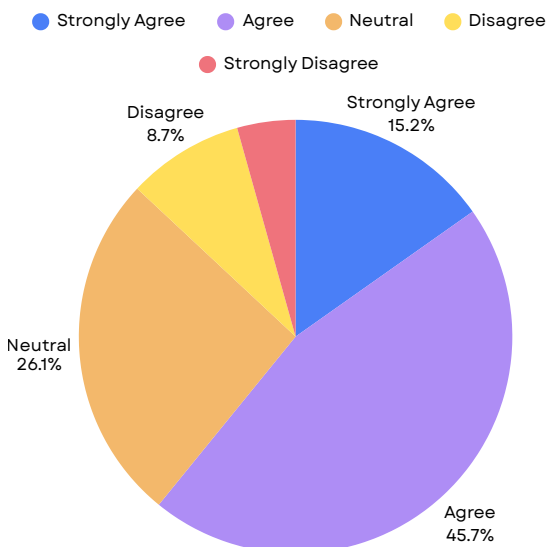
My favorite subject/class is...



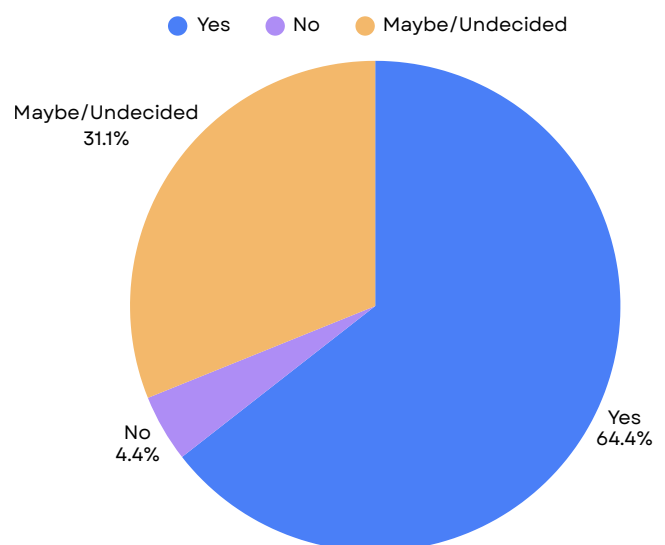
Do you plan on pursuing a (STEM) career in the future?



At my school, teachers make learning STEM fun through hands on activities...



Do you plan on furthering your education after high school?

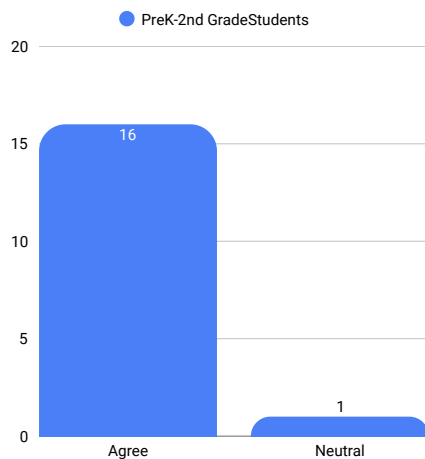


Post-Camp Quantitative Outcomes

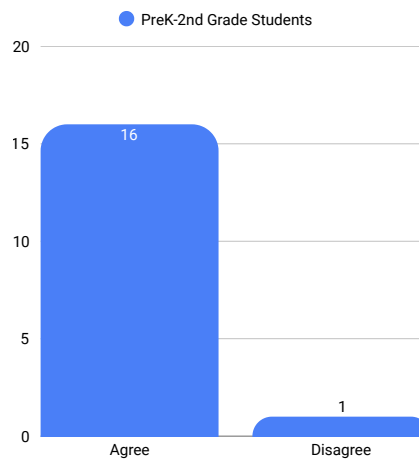
Seventeen PreK–2nd-and forty 3rd- 5th-grade students completed post-camp surveys. Their responses show high engagement and offer insights into satisfaction, STEM interest, and favorite activities after attending the YDC Glow & Flow Summer Camp.

Select PreK–2 Grade Highlights

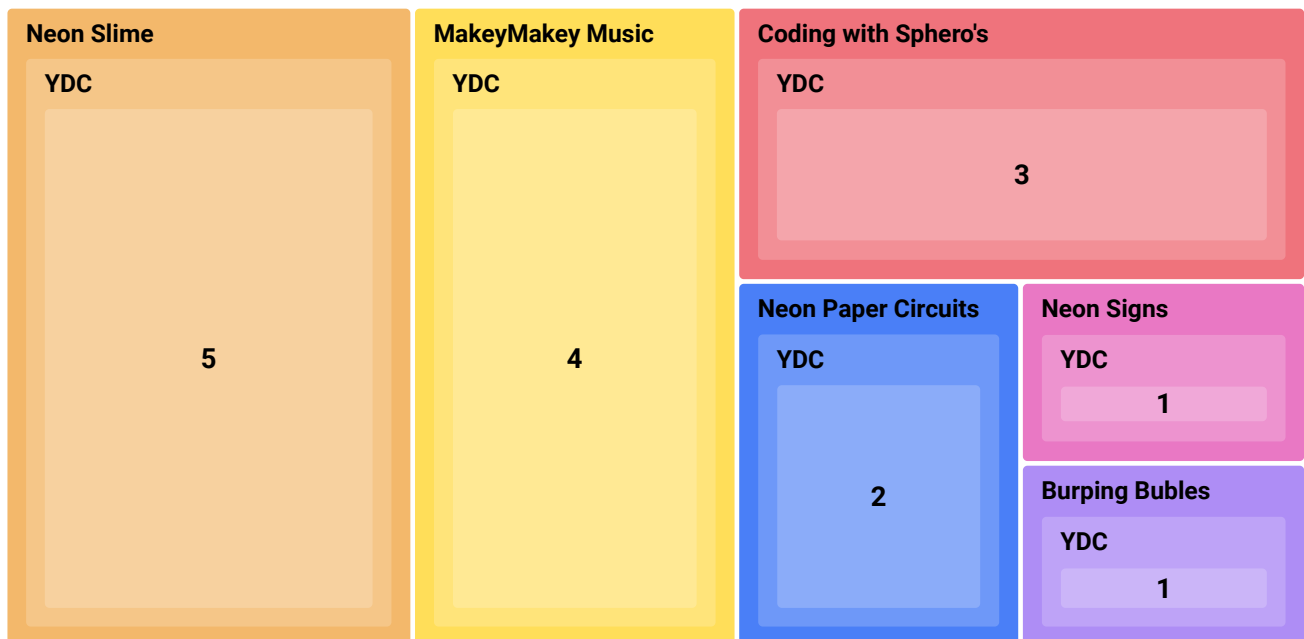
Camp Enjoyment:



STEM Interest After Camp:



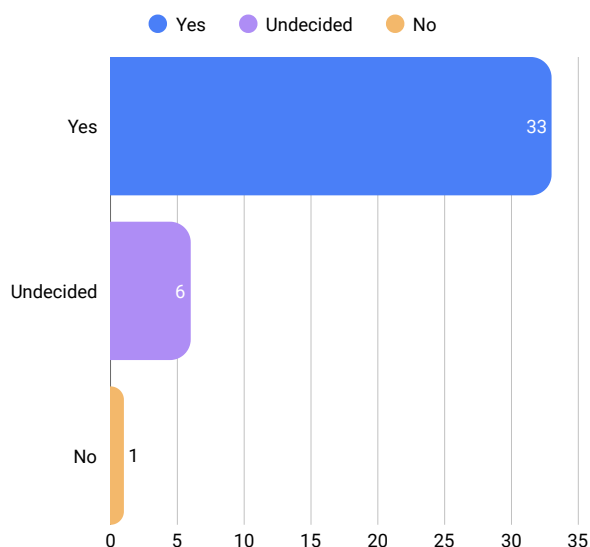
PreK-2nd Grade Students Top Reported Favorite Activities:



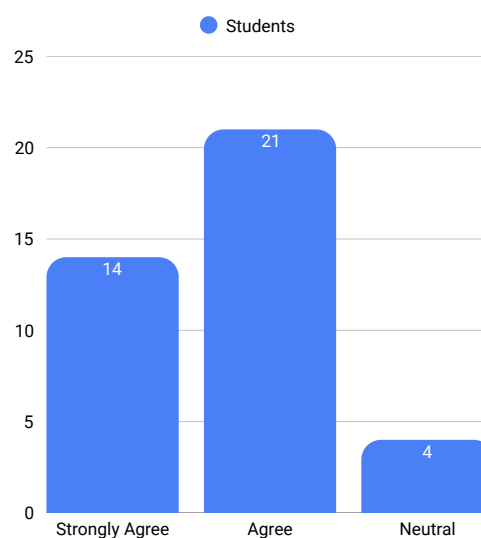
Post-Camp Quantitative Outcomes Continued

Select 3rd–5th Grade Highlights

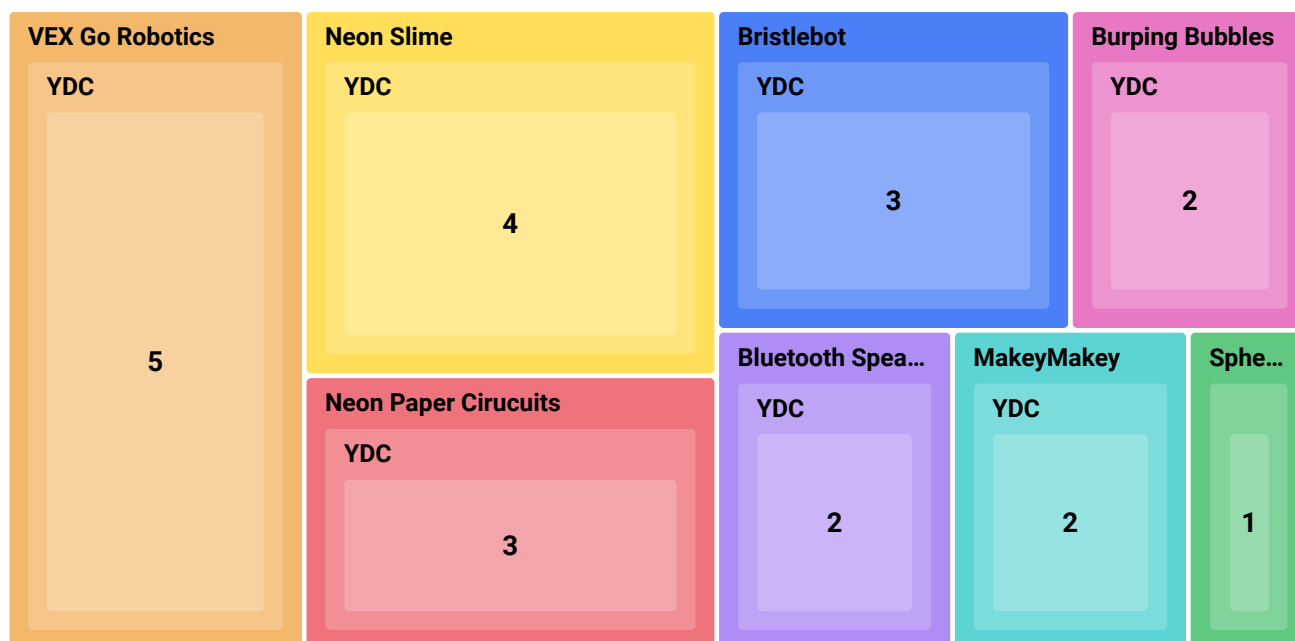
I am MORE interested in STEM because of the YDC Camp.



The Camp Activities Were Interesting and Easy to Understand.



3rd-5th Grade Students Top Reported Favorite Activities:



Qualitative Impact

"If I were to build another robot, I would make it dance."
-YDC Summer Student

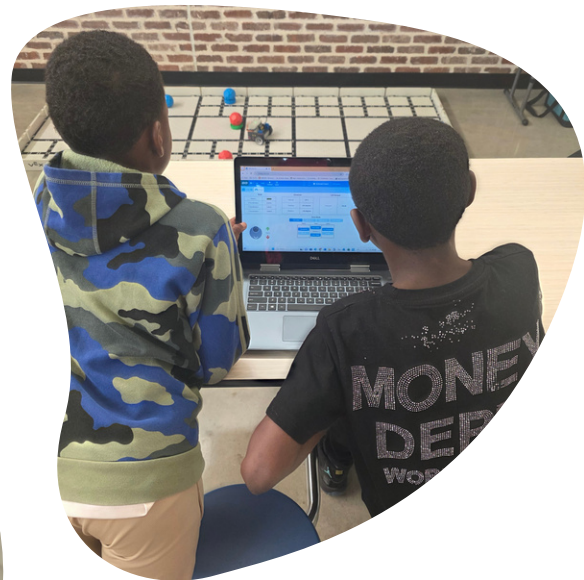
Post-camp feedback indicates that students had a positive experience at the YDC Glow & Flow Summer Camp.

The Camp highlights the effectiveness of equitable, hands-on STEM education in engaging young learners through creativity, coding, engineering, and collaborative problem-solving.

Survey results show strong student engagement and enthusiasm for STEM activities.

"I liked making the neon slime because it was so fun to make and play. I liked making the coding music because I liked the games we played and playing with the playdough." -YDC Summer Student

"The Makey Makey Coding Music and Sound, Bluetooth Music Speaker, VEX Go, and Sphero are my favorites because they are hands-on and not too easy that it's boring, but hard enough for a challenge." -YDC Summer Student



"What I liked most was the hands-on activities, the teachers, the location where the camp was held, how the camp made learning STEM fun, the breakfast and lunch, getting picked up and dropped off for camp from my house, the STEM activities I got to take home, and the Camp T-shirts." -YDC Summer Student



Recommendations for Future Programming



The 2026 YDC Summer Camp showed that students excel with engaging, hands-on experiences that foster creativity, collaboration, and problem-solving. Feedback and observations highlight opportunities to further strengthen and expand the camp's impact. YDC should build on the enthusiasm for robotics, coding, engineering design, and creative STEM activities by expanding experiences in artificial intelligence, robotics, coding, and emerging technologies. Introducing age-appropriate AI concepts and real-world applications will better prepare students for future academic and career opportunities while developing computational thinking and digital literacy.

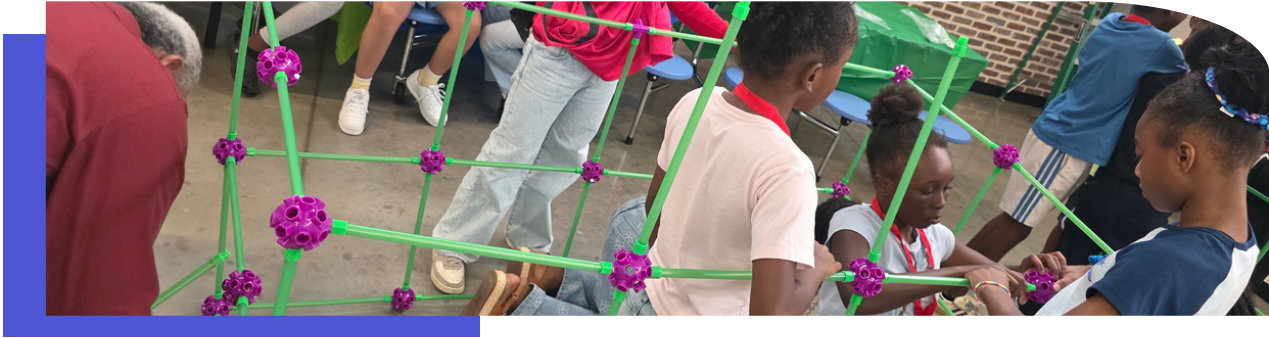
The camp offers an opportunity to strengthen the link between classroom learning and home. Expanding family STEM engagement events, such as Family STEM Nights, parent showcases, and take-home engineering challenges, will encourage continued exploration beyond camp hours and empower families to support their children's learning. The strong positive response to this year's theme indicates that Glow & Flow could become a signature summer experience. Further refining and expanding this theme will help establish a recognizable camp identity while maintaining excitement through hands-on investigations, creative design, and collaborative problem-solving.

As participation increases, the program should offer returning campers opportunities to further develop their skills. Creating advanced engineering pathways will enable students to move beyond introductory activities into more complex design challenges, engineering applications, robotics competitions, AI projects, and innovation experiences that build leadership and technical skills over multiple summers.

To assess the program's long-term impact, C-STEM should implement a longitudinal evaluation framework that tracks students over multiple years. Monitoring participation, evolving STEM interests, academic goals, and career awareness will provide valuable evidence of sustained outcomes and support future reporting to funders, partners, and stakeholders.

The program will benefit from expanding partnerships with business and industry. Increasing industry volunteers, STEM professionals, and mentors will give students meaningful exposure to real-world careers, workplace experiences, and diverse role models who can inspire future educational and career pathways.

These recommendations offer a strategic roadmap to sustain the program's momentum and expand its reach and long-term impact. By continuing to innovate, strengthen partnerships, engage families, and invest in educator capacity, the Youth Development Center can expand its successful model and provide more opportunities for students to gain the knowledge, confidence, and skills to become future innovators, problem-solvers, and leaders.



Survey Methodology

Survey Instruments

C-STEM administered developmentally appropriate pre- and post-camp surveys to document participants' experiences, interests, and perceptions. Separate surveys were used for PreK–2nd and 3rd–5th grade students to reflect differences in reading ability, developmental stage, and self-reflection.

The **PreK–2nd Grade pre-camp survey** used brief, child-friendly questions to assess participants' initial interests and attitudes. Students identified activities they enjoyed and indicated their agreement with statements about reading, mathematics, science, excitement for daily activities, and interest in STEM-focused summer camps.

The **PreK–2nd Grade post-camp survey** evaluated participants' perceptions of the camp, including enjoyment of activities, impressions of instructors, new learning, and increased interest in STEM. Students also selected their favorite activities. Questions could be read aloud or clarified by an adult as needed.

The **Grades 3rd–5th pre-camp survey** collected information on participants' learning goals, weekly STEM activity exposure, favorite subjects, perceptions of hands-on STEM learning, and interest in STEM careers. It also included baseline questions about expectations and perceptions of the C-STEM Summer Camp.

The **Grades 3rd–5th post-camp survey** assessed participants' perceptions of the camp as an enjoyable and understandable learning experience, changes in interest in C-STEM, interest in future camps, preferred activities, and instructor ratings. Both closed and open-ended questions allowed students to explain their preferences.

Survey Administration and Anonymous Data Collection

Surveys were administered electronically at the start and end of the camp. Participation was voluntary. No names, student IDs, email addresses, or other direct identifiers were collected. Electronic timestamps were used only for administrative purposes and did not identify individual students.

Because the surveys were anonymous, pre- and post-camp responses could not be linked to individual participants. Demographic questions, including grade, gender, and race or ethnicity, were used solely to describe the respondent population and analyze participation patterns.

The available survey files included:

- 25 PreK-2nd grade pre-camp respondents
- 17 PreK-2nd grade post-camp respondents
- 45 Grades 3rd-5th grade pre-camp respondents
- 40 Grades 3rd-5th grade post-camp respondents

These totals reflect completed survey records and do not represent total camp enrollment or attendance.

Data Analysis

Survey results were analyzed using descriptive statistical methods. For closed-response questions, the analysis calculated the number and percentage of respondents selecting each response option. Where appropriate, agreement categories were summarized to describe the proportion of respondents indicating positive perceptions of the camp, its instructors, and their learning experiences.

For questions that allowed respondents to select more than one activity or response, each selected option was counted independently. As a result, percentages for multiple-response questions may total more than 100 percent.

Open-ended responses were reviewed and grouped according to recurring themes, such as enjoyment of hands-on activities, coding and robotics, instructor support, opportunities to create, and suggestions for improving the camp. Qualitative comments were used to provide context for the quantitative findings rather than to represent the views of every participant.

The analysis was descriptive and did not include tests of statistical significance, predictive modeling, or causal attribution. Differences between pre- and post-camp results were examined at the group level and were interpreted as patterns among respondents rather than measured changes among the same individual students.

Methodological Restrictions

Several limitations should be considered when interpreting the findings. First, survey participation was voluntary; therefore, students who completed the surveys may differ from students who did not respond. Participants with particularly positive or negative experiences may have been more likely to submit a survey, creating the potential for voluntary-response bias.

Second, the pre- and post-camp surveys were anonymous and could not be matched by participant. Changes between pre- and post-camp findings therefore reflect differences between the groups of respondents at each administration point and cannot be interpreted as individual-level growth.

Third, the number of survey respondents differed between the pre- and post-camp administrations, particularly among PreK–2nd grade participants. Variations in attendance, availability, reading readiness, technology access, or the level of adult assistance may have affected response rates.

Fourth, the findings are based primarily on participant self-report. Younger students may interpret response choices differently or may be influenced by how questions are read, explained, or presented. Responses may also be affected by social desirability, with participants selecting answers they believe adults expect

Finally, the survey instruments contained some differences in question wording and response scales across grade groups and between the pre- and post-camp administrations. Direct comparisons were therefore limited to conceptually related measures and should be interpreted cautiously.

Accordingly, all participation totals, percentages, and findings shown in this report reflect survey respondents rather than the full population of enrolled or attending campers. Results should be interpreted within the context of anonymous, voluntary survey participation and used as descriptive evidence of respondents' experiences and perceptions rather than as definitive measures of program impact.



Conclusion



The YDC Glow & Flow Summer Camp showed that engaging, hands-on STEM experiences foster curiosity, confidence, creativity, and enthusiasm in students. Participants explored, designed, built, coded, experimented, and collaborated, transforming STEM from a classroom subject into a dynamic path for discovery and innovation.

Pre- and post-camp survey results highlight the impact of intentionally designed learning experiences that build critical thinking, persistence, communication, teamwork, and problem-solving skills. By integrating engineering, coding, robotics, music, and artistic expression, the program encouraged students to see themselves as creators, innovators, and future leaders equipped to address real-world challenges.

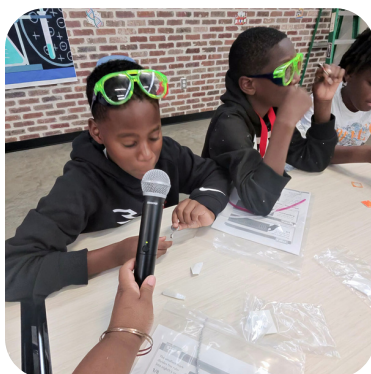
The YDC Glow & Flow Summer Camp offered opportunities to investigate real problems, express creativity, and apply new knowledge; the program increased students' confidence and broadened their awareness of future educational and career paths in STEM.

This initiative succeeded thanks to the dedication of the Youth Development Center, the commitment of educators and staff, the encouragement of families, and the generosity of partners, volunteers, and supporters. These collaborative efforts created a learning environment where students felt challenged, supported, and inspired.

The findings presented in this report affirm that investments in experiential STEM education produce meaningful returns. The findings confirm that investing in experiential STEM education yields significant returns in student engagement, learning, workforce readiness, and community innovation.

The future is bright. The future is innovative. The future begins with students who are given the opportunity to Glow, to Flow, and to imagine what is possible.

-Reagan Flowers, PhD





Acknowledgement

The achievements highlighted throughout this report are the result of collective effort. Every student served represents the commitment of organizations, educators, volunteers, families, and supporters who believe in the transformative power of education. Together, we are cultivating curiosity, expanding opportunity, and preparing the next generation to lead, innovate, and positively impact their communities.

Phone

713--443-4521

Email

rflowers@cstem.org

Website

www.CSTEM.org

Location

3226 Alabama Street,
Houston, TX 77004

