@Scale Future City Working Cities Expansion Project

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II. Goals & Objectives

The major STEM goals of our project and anticipated outcomes:

In our second year our program goals were to implement ten Future City teams in thirteen Working Cities, train thirteen teachers to become Future City Team Leaders, and reach 50-250 students. The major state STEM goals of our project were:

Goal 1 - Increase student interest in STEM: The students from the @Scale-funded Working Cities will have a better sense of the real world application of their STEM subjects, as well as a better sense of how the STEM classes tie into all other subjects. This happens on many different levels at every stage of their project development. The following is a collection of some of the more readily evident ways student interest in STEM is increased:

- As they develop their virtual cities using SIM City software, they are not simply playing a game. They are gathering information from graphs and charts, and determining changes over time. At the same time, they see how real world changes affect these statistics, such as how the arrangements of roads and residential neighborhoods in relation to the economic centers can greatly improve commute times, which directly increases the satisfaction of residents in the city.

- As student teams develop their research essays, this year on transportation systems, students research the present cutting edge of technology and use their imaginations to envision how the present technology will continue to develop in the future. By thinking this way, and by understanding that they are our future, they get a glimpse of their own possible futures.

- Also, in the course of their research projects, students are required to name the professions responsible for bringing about the systems in their city. They learn the real world roles that engineers, scientists, architects, and planners play in their communities, and how their roles tie into community governance and education. They learn about power systems, about the monitoring and reduction of pollution, about the mechanics underlying the designs of transportation vehicles in the city, and even about the civil and structural design of the transportation system infrastructure.

  Every team is assigned a mentor from a STEM profession field who they will come to know well as they progress with their projects, and the BSCES offers many other opportunities for them to learn about STEM professions as well. The goal of these efforts, as they pertain to the students, is to show that STEM fields are creative, have great public value, and allow those in it to live at a comfortable level. In addition, by meeting real people who do real work, myths and stereotypes that may dissuade a student from STEM interest get debunked.

- In building the models of their cities, the students learn about the importance of scale. Common to many STEM fields, professionals envision a future project or product that will be made by others and used by others. The students will come to know that plans and models are not just rough drawings but convey the way things will be when completed. To a designer, scale is critical and so intrinsic to design that it is almost an extra sense. Students will not only gain understanding of the mathematics involved in scaling an object, but will visually gain the sense of scale, feeling when something is not in proportion to the way it should be in the real world.

- In presenting their project, students defend their ideas in front of a panel of experts. The students are treated with the highest respect and their ideas are discussed and celebrated. Through this, they gain insight into the real life of a STEM professional: STEM professionals have knowledge and are respected for putting it to use. The students' knowledge in STEM subjects, and their choices in applying them in conjunction with their other knowledge, becomes a source of pride.

Goal 2 - Increase STEM achievement among PreK-12: With increased interest, there are improvements in achievement. The skill set needed to successfully bring a Future City concept to full fruition includes science, technology, engineering and mathematics.

In terms of science, students need to research the way things work. They will be reading and finding information about cutting edge developments in technology, and they will be hypothesizing possible future technologies. They will discuss future feasibility of these ideas and deciding whether they make sense for their cities, weighing not only if their ideas seem to have enough supporting scientific basis to be believable, but also weighing the societal and environmental impacts of their ideas. This is exactly what a real scientist does, exclusive of actually performing the experimental scientific research itself.

In terms of technology (in this case meaning the use of state-of-the-art methods, software and tools to further their work), students will be working within an online system. Their forms, SimCity models, narratives and essays will be submitted online through the national competition portal, and Virtual High School has donated virtual classrooms and supporting staff to allow the students to discuss their work with mentors and teachers between meetings. Students will be using computers to write and draw, and may even use computers to sketch out the configurations of their city models. The SIMCity program is a game that the students enjoy very much, but the rubrics associated with the design of their virtual models leads the students to use the game as a technological tool. The students will also get hands-on experience with model construction and using tools to make their physical models.

In terms of engineering, the main point of the contest is to select a future scenario, recognize the many problems that the people of their city would need to overcome to transform it into a paradise, and use the engineering process to find best solutions. Points in the presentation and in the research essay rubrics are given to those who best discuss the pros and cons of a solution. They also learn about the many different types of engineers that would be needed for the real city.

In terms of mathematics, the students will readily recognize the similarity between the way problems are solved in the real world and the word problems they solve in class daily. For example, their research projects require that they prove that their proposed transportation systems solve traffic problems. They will need to prove that their system has adequate capacity based on the population near each stop, plus commute times will need to be studied. Math is also used in their discussions of scale, in their assessments of predicted points from rubrics, and in the determination of layout and space needs to build elements of their models.

Goal 5 - Increase the number/percentage of STEM classes led by effective educators: As we indicated in the submittal, Future City provides a wonderful opportunity for expanding middle school teachers' awareness of infrastructure, engineering, and cutting edge technologies through the lens of students' vision of a city of tomorrow. Participation allows teachers to better contextualize the STEM curriculum for students. All teachers participating in Future City get to work with STEM professionals regularly, are given a vast library of vetted learning blocks, and are invited to free webinars (which are viewable later as well). Above all, teachers gain the experience of seeing their

students working on a project that ties their STEM subjects to their other subjects and shows ways that the STEM subjects come into use. With all of these opportunities afforded to the teachers, it stands to reason that their effectiveness will increase. This being said, several schools have reviewed the program and decided to have classes either geared towards the program participation or to use elements of the program for their own independent projects. This use of Future City program elements allows the schools to have a class that brings all of their subjects together in a synergistic way. By either increasing effectiveness among STEM teachers or creating new classes focused on the strategic deployment of STEM subjects like the one mentioned, Future City demonstrates success in increasing the number/percentage of STEM classes led by effective educators.

Future City gives these teachers real world examples that help the students relate to a subject. Successful education requires a healthy balance of imparted knowledge and focused inspiration.

III. Implementation

Successes of our Project via @Scale funding and Meeting Implementation Goals:

The Future City Working Cities Expansion Team included career center Youth Programs Directors and staff from five career centers (called outreach advisors for this project), the New England Regional Future City team, and a partner from the Metro North STEM Partnership. Our partnership and teamwork grew stronger since this was our second year doing the program

Integrating Future City into Career Center's Outreach: Career center staff are involved with and implement many youth career exploration programs. The first success was integrating Future City as a part of the career centers' repertoire to connect youth to programs that can ignite youth's interest in STEM while exploring career pathways.

We reviewed talking points with the Outreach Advisors, and prepped them to implement teams that would address feeding future cities. FY'15 future city teams were to select one vegetable and one protein and design a way to grow enough of each within their future city limits to feed their citizens. Again in September of 2015 we prepped Outreach Advisors to do outreach and implement future city teams for FY'16. FY'16 future city teams were to design an innovative citywide solid waste management system. We continued to use the listserv created with all the outreach advisors involved so that we could continue to share best practices as we moved forth to implement Future City in different schools.

Outreach to Schools to Register for Future City: The deadline to register for the Future City Competition was October 31st. Heavy outreach occurred throughout the month of October where the Outreach Advisors reconnected with the teachers in the middle schools to implement Future City. Our mission was to reconnect with schools that were able to implement a team last year, help the program to become stronger, and to outreach to three new schools. Our target was to implement thirteen teams in thirteen Working Cities. This is an increase from outreaching to ten working cities the year before.

Unforeseen obstacles, how we overcame them, and sites retained from previous years:

Winter and the multiple feet of snowfall caused hardship and obstacles for many schools to meet for Future City and make it to the competition in January 2015. Not knowing whether the program would be refunded until late in the calendar year also created obstacles to implementing the project smoothly. We were planning to have the month of September to do outreach to the schools, to build a stronger

relationship with the teachers, and give them time to think about how they would move forward during the school year to implement Future City. Teachers have already planned their curriculum and are busy with the school year by October. Doing outreach to first-time participating schools in the respective Working Cities continue to prove to be difficult when there is a short timeframe to implement. The registration deadline for the Future City Competition was 10/31, deadlines to submit their virtual city through Sim City and essay was mid-December, the narrative deadline was beginning of January, and the final competition where they needed to finish building their model and present their city was late January. There needs to be more time for teachers to prepare for the competition and outreach to students who would like to participate, or decide how they will integrate this project into their curriculum.

Seven implementation sites were retained from the previous year, we added one new site for FY'15 and added two new sites for FY'16. Sites can be retained because the program is extremely low-cost for schools. Other than transportation, stipends, and some small miscellaneous costs, there is a maximum of $100 allowed to be spent on the final models and presentations. The program covers Grades 6-8, and 6th and 7th graders start talking about the next year even before they leave the regional finals. On top of serving as a STEM connection, the program teaches community responsibility and appreciation for the systems that hold communities together.

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IV. Scale

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List of targets which we successfully met for scaling the project:

The following are the eight teams we implemented in the eight Working Cities we targeted to expand the Future City program to and the corresponding schools/after-school programs that were involved in FY'15. We reached a total of 69 students and 8 schools.

1) Somerville: Dr. Albert F. Argenziano School at Lincoln Park; 11 students
2) Lynn: Girls Inc., Lynn; 15 students
3) Everett: Lafayette School; 8 students
4) Lawrence: Lawrence Family Development Charter School; 11 students
5) Salem LEAP for Education: Collins Middle School; 6 students
6) Revere: Susan B. Anthony Middle School; 4 students
7) Chelsea: Wright Science and Academy Middle School; 6 students
8) West Springfield: West Springfield Public Library; 8 students

The following are the nine teams we implemented in the nine Working Cities we targeted to expand the Future City program to and the corresponding schools/after-school programs that were involved in FY'16. We reached a total of 116 students and 9 schools. Since the grant period ends on 12/31/15 these numbers only reflect the total number of students that initially registered to participate in Future City. The competition occurs in 2016.

1) Somerville: Dr. Albert F. Argenziano School at Lincoln Park; 7 students
2) Lynn: Girls Inc., Lynn; 9 students
3) Everett: Lafayette School; 4 students
4) Lawrence: Lawrence Family Development Charter School; 35 students
5) Malden: Ferryway School; 8 students
6) Salem: LEAP for Education; 6 students
7) Revere: Susan B. Anthony Middle School; 10 students

8) Chelsea: Wright Science and Academy Middle School; 7 students
9) West Springfield: West Springfield Middle School; 30 students

In FY'14 our goal was to implement 10 Future City teams in 10 working cities – we had 7 teams and 63 students. For FY'15 our goal was to implement 13 teams in 13 working cities and we had 8 teams and 69 students. In FY'16 our goal continued to be 13 teams in 13 workings cities and we had 9 teams register with 116 students to begin with.

Specific geographic areas where we were unable to scale completely:

We continued to have difficulty implementing a future city team in Haverhill and in Lowell. In FY'15 we continued to have difficulty implementing future city in Malden, however, a lot of outreach and collaboration occurred to successfully implement future city for the first time in Malden for FY'16. We also did a lot of work with West Springfield. For FY'15 West Springfield successfully completed a future city team through an after-school program. Through the summer a lot of collaboration occurred between the Superintendent, Principal, REB of Hampden County, and Metro North REB to implement future city for the first time within the West Springfield Middle School. We also were unable to implement future city in Worcester and New Bedford, but initial relationships were built and a group in New Bedford stated that they were interested in doing Future City next year.

V. Outputs, Outcomes & Evaluation

Tools used to measure impacts of the program:

Collaborating with National Engineers Weeks and utilizing the Concord Evaluation Group study (May 2012) that assessed the impact of Future City participants, along with the UMass Donahue Institute report, "Increasing Student Interest in STEM: Massachusetts STEM Pipeline Fund Programs Using Promising Practices" (March 2011), the Metro North REB created survey tools. Understanding that @Scale is a strategic initiative to create a portfolio of education enhancement projects aligned to achieve the goals of the Commonwealth's STEM Plan, the REB also looked at past survey tools used by STEM Pipeline-funded programs in order to align with statewide efforts and participate in UMass Donahue Institute's recommendation to standardize student interest evaluation questions across different programs.

Student pre-surveys, student post-surveys, and teacher surveys were administered. The assessments measured:

1) Students' interests in STEM:

- Changes in STEM interest in relation to program participants' interest in STEM more generally, beyond the program itself
- The effect of having a mentor (professional, teacher, parent)
- STEM career awareness and exploration of STEM career options

2) Students' achievement in STEM academic subjects:

- Ability to apply math and science concepts to real-world issues
- Interests in STEM academic subjects
- View on difficulty of STEM academic subjects

3) Students' 21st century skills:

- Development of writing, public speaking, problem-solving, and time management skills
- Ability to research and propose solutions to engineering challenges
- Knowledge about how their communities work and how to become better citizens
- Development of strong teamwork skills

4) Educators' effectiveness:

- Educator usage of learning blocks, video collections, and training materials offered by Future City
- Benefit of having a mentor in a STEM profession involved
- The alignment of the program to their curricula goals
- Educators' knowledge of STEM occupations
- Changes made in curriculum and teaching style

The number of students, teachers and/or workers impacted by our scale-up project:

In FY'14 seven teachers participated all the way through the program. Sixty-three students participated from seven schools. In FY'15 eight teachers participated in the program and 69 students from eight schools participated. In FY'16 nine teachers registered in the program and 116 students initially participated.

FY'15 was a difficult year because of the snow storm. All the schools had to close down for multiple days because of the snow. This created difficulty for students to meet and work on the Future City project.

Significant results and key outcomes, including major findings, development, and conclusions in achieving our goals:

Future City's cross-curricular educational program gives students an opportunity to do the things that engineers do—identify problems; brainstorm ideas; design solutions; test, retest and build; and share their results (i.e., the engineering design process). With this at its center, Future City is designed to provide an engaging way to build students' "21st century skills." Students participating in Future City are expected to:

- *Apply math and science concepts to real-world issues.*
- *Develop writing, public speaking, problem solving, and time management skills.*
- *Research and propose solutions to engineering challenges.*
- *Discover different types of engineering and explore career options.*
- *Learn how their communities work and become better citizens.*
- *Develop strong teamwork skills.*

(Evaluation of National Engineers Week Future City Program, Concord Evaluation Group, page 2, May 2012)

One major goal surrounding STEM Plan 2.0 goals to ignite youth's interest in STEM and increase their achievement is igniting youths' motivation in general. Students may have several other social issues or barriers they face, especially when we focus on underserved communities in Working Cities. If students

are more engaged, motivated, inspired, or excited to do something fun because we provided extra resources and programming for the youth to participate in - then that is an achievement. Here, a majority of the students joined Future City because they thought it sounded like fun, their friends had done it the year before, they liked building or designing things, they thought it would help them get to college, or they were interested in becoming an engineer.

Another goal was to reach a diverse population and bring resources to Working Cities. The demographics we served in this project for FY'14 was 55.38% boys and 44.62% girls, 40.63% Hispanic, 34.38% Caucasian, 7.81% African American, and 4.69% Asian. We reached a more diverse student population in FY'15 where the demographics were 47.83% boys and 52.17% girls, 44.19% Hispanic, 16.28% Caucasian, 9.3% African American, and 11.63% Asian, and 13.95% identified as Other.   Excitingly, for FY'16 our outreach showed that we engaged an even more diverse student population to participate in Future City. The demographics for FY'16 are 38.36% boys and 61.54% girls, 28.21% Hispanic, 15.38% Caucasian, 10.26% African American, 25.64% Asian, 5.13% Native North American, and 10.26% identified as Other.

The benefits and importance of exposing youth early on to hands-on experiences, contextualized curriculum, and teamwork are important factors. Now we will look more closely at how Future City increased student interest in STEM areas, increased achievement among all PreK-12 students in order to prepare graduates to be civically and college and/or career ready, and increased the percentage of skilled educators who teach PreK-16 STEM.

Increased interest in STEM areas:

We wanted students to understand the different skills needed in STEM fields and we wanted students to be able to see themselves having the skills of an engineer. By asking them the following questions we wanted the students to be able to link engineering and STEM to real-life concepts. Science, technology, engineering, and math cease to be a complex course and becomes a method to deal with real-life concepts. Student's interest in STEM will increase when STEM is linked to real-life and hands on experiences.

To assess the students understanding of what engineers do and to relate it to real-life we asked the students to name one thing an engineer might have designed that is an important part of their life. The students had diverse and innovative answers in both the pre-survey and post-survey. Responses included cars, houses, computers, IPhones, bridges, beds, pencils, and stoves.

We asked the students to think about the skills they had that are related to an engineer's skillset. For FY'15 here are the percentages of students that agreed or strongly agreed to these statements:

- I am good at building things: 56.25% pre-survey; 48.27% post-survey
- I am good at designing things: 63.83% pre-survey; 58.62% post-survey
- I am good at solving problems: 56.53% pre-survey; 64.29% post-survey
- I am good at brainstorming: 55.31% pre-survey; 34.48% post-survey

We also wanted to evaluate whether students' felt they got better at these skills after going through the Future City program. There was an increase in percentage of students believing they were good at solving problems; however we found the percentage dropped for the other skills. A couple factors could be affecting this evaluation. One is that the pre-surveys sometimes were given after the students were already introduced to the Future City program and had appeared to have some instruction or guidance in

the program, and on the engineering design process. Another factor affecting the evaluation is that there were 48 total students who took the pre-survey, but not all students took the post-survey so that there were 29 students who took the post-survey. Lastly, the students' experience may have been affected by the snowstorms and the inability to meet consistently for the program in FY'15.

Wanting to assess the students' critical thinking and understanding of the engineering design process we asked the students to describe the design process a civil engineer would take to design a better system for transporting people to different places in the city. All the students were very strategic and thoughtful with their responses in the pre-survey and post-survey. In the pre-surveys many students responded with three to five steps beginning with brainstorming or defining the problem, followed with making a plan/blueprint/model, and then building it. In post-surveys students emphasized figuring out the problem first, researching/discussing how to solve it, creating a blueprint/prototype, testing the prototype, and modifying the prototype as needed.

Finally, when asked in the pre-surveys if the student liked math 58.33% (54.17% post-survey) of the students agreed or strongly agreed and 75% (75% post-survey) of the students responded they agreed or strongly agreed that they liked science.

If a student likes science and math and can relate to why STEM is important to their everyday lives their interest has increased in STEM. When asked if the student was related to an engineer 32.61% stated yes, and 67.39% stated no. This was asked to show whether having family or parents as engineers influenced the student's interest in Future City and STEM.

Increased achievement among all PreK-12 students in order to prepare graduates to be civically and college and/or career ready:

If the student felt that doing well in math and science in school was important we believe that the student's efforts would increase and therefore increase their achievements in math and science. These are the percentages of students that agreed or strongly agreed that:

- Doing well in math at school is important: 91.67% pre-survey; 86.2% post-survey
- Doing well in science at school is important: 85.42% pre-survey; 92.86% post-survey

21st century skills are important to students' achievement and preparation to be civically and college/career ready. 21st century skills include work ethic, flexibility, teamwork/collaboration, and problem-solving skills. These are important life-long learning skills that every youth and individual needs. Often these skills are just as important, if not more so, to employers looking for candidates.

Assessing the students' viewpoints on teamwork here are the percentages of students who agreed or strongly agreed to these statements:

- It's better to work with a team of people than by myself:
  66.66% pre-survey; 79.31% post-survey
- It's better to work with people like me than to work with people who are different:
  12.76% pre-survey; 25% post-survey

When asked what new knowledge did they gain, or what skills did they improve, by participating in Future City their answers included: learned how different people think, learned about engineering, improved in understanding concepts, team-work skills, improved presentation skills, building skills, creativity, and science based skills. Several responses included building and designing.

Furthermore, the percentages of students below responded that Future City:

- …taught me that I and my classmates can create something on their own without direction from a teacher: 62.06%
- …has helped me to see the value in working with a team to solve problems: 86.2%
- …has helped me see that math and science are important to my future: 75.87%
- …has given me an outlet for my creativity and imagination: 72.41%
- …has boosted my confidence in myself: 55.18%

Future City also links a professional mentor to a Future City team. 88% of the students reported having a mentor during the project, and 65.52% of the students stated that the mentor was important in guiding us on the project.

When asked what they wanted to be when they grew up answers were very diverse. The answers did not change drastically between the pre-survey and post-survey. Answers included wanting to be a chef, designer, nurse, nail artist, lawyer, doctor, journalist, architect, scientist, and engineer.

<u>Increased percentage of skilled educators:</u>

First, simply by participating and offering a hands on project to their students exposes teachers to new ideas on how to relay STEM topics in a contextualized manner. Furthermore, by delivering this project the teacher has more liberty to be creative and involved with the students in a different environment. All teachers in this project offered Future City as a club. Future City groups met mostly after school hours. An average of all the responses from the Teachers reported that the students worked on Future City for an estimated average of 36 total hours from start to finish, however the answers ranged from 14 hours to 50 hours. The average of the teachers' responses for the estimated number of hours they worked on Future City was 52 hours from start to finish. The hours here ranged from 35 to 80 hours.

Second, teachers are connected to industry mentors, career coaches, and other resources. Teachers had mentors come and speak about how to set up a city. One team visited Whole Foods with their mentro an and interviewed people in the food industry. Teachers also had online resources such as the learning blocks and webinars on the Future City website. With help from outside resources all the teachers agreed that Future helped their students plan a project, execute a project, learn how cities work, improve their ability to work with a team, improve their public speaking skills, and improve their problem-solving skills.

Third, Future City supported the teacher's curricular goals in many different ways. Since engineering is part of the standards Future City tied to curriculum. Future city tied to state standards relating to the engineering design process. Future City also tied to Tech Engineering classes where there is a lot of concentration on design and problem-solving.

Lastly, Future City ignites the teachers' motivation as they viewed their great accomplishments while participating in Future City:

"The growth some of the girls experienced is amazing to witness."

"My students saw how their hard work payed off."

"The highlight for my students and myself was winning the Best Education System special award. The students were thrilled that they were recognized for their hard work."

"Seeing the kids working together on the model and break themselves into teams to accomplish tasks was impressive."

VI. Budget and Plans for Program Sustainability

The @Scale funds allowed the Metro North REB to offer administrative and programmatic support, the Boston Society of Civil Engineers to manage and support a competition that would have more schools participating, career center staff to act as outreach advisors and use their current connections to the community, and stipends and support for the teachers who became Future City Team Leaders.

We aim to continue the relationships we have developed with the programs funded by the @Scale grant. All the teachers that participated would recommend Future City to a colleague, and stated they would want to participate again. Students also enjoyed the program 51.72% of the students stating they wanted to participate again and 34.48% of the students stating maybe. Coupled with the passion and extensive volunteer efforts that make the Future City program run by the New England Regional Team, there is great interest from participants that assures continuity.

Form 1a: Expenditure Worksheet

Please complete the expenditure worksheet below. In the first column, identify how you divided your grant among the identified expense categories. In the second column, list your expenditures to date. The third column will automatically populate with the difference (remaining balance). Make sure to sign and date this worksheet before submission and include any necessary explanations or comments in the "Comments Box".

Instructions: Double-Click on the table for it to become an interactive spreadsheet. Click outside the table to return to MS Word. ONLY FILL IN CELLS HIGHLIGHTED IN YELLOW: Non-Yellow cells contain formulas and will fill in automatically. Also, all cells are formatted for currency; you do not need to type in $ signs.

Categories	Grant Funds Received		
	Grant Funds Received	Grant Funds Expended	Grant Funds Remaining
Total Salaries:	$ 10,470	$ 10,470	$ -
Administrator	$ 10,470	$ 10,470	$ -
Support Staff			$ -
Other			$ -
Fringe Benefits	$ 2,565	$ 2,565	$ -
Contractual Services	$ 49,385	$ 49,385	$ -
Travel/Transporation	$ 448	$ 448	$ -
Total Supplies & Materials:	$ 437	$ 437	$ -
Curriculum			$ -
Equipment			$ -
Other	$ 437	$ 437	$ -
Training			$ -
Tuition & Stipends	$ 17,192	$ 17,192	$ -
Evaluation			$ -
Other (Identify)			$ -
Other (Identify)			$ -
Indirect Costs (10% Max)	$ 5,604	$ 5,604	$ -
Total	$ **86,101**	$ **86,101**	$ **-**

Project Name/Organization: __Future Cities Working Cities Expansion Project__

Project Manager: ___Meelynn Wong_____ Date: __1/29/16_____

Comments Box

The last @Scale Future City report that was submitted on 5/5/14 showed there was $11,101 left to run the Future City program the rest of the calendar year 2014 and kick-off the FY'15 Future City program. The project being refunded $75,000 for calendar year 2015 allowed us to finish the FY'15 Future City program and kick-off the FY'16 Future City program.

The budget above provides a report on the total project funds ($86,101) available to us from 7/1/14 – 12/31/15.

All line items in the budget were increased to reflect the work done over 7/1/14 – 12/31/15.

Appendix

- FY'15 Student Pre-Survey
- FY'15 Student Post-Survey
- FY'15 Student Pre-Survey Results
- FY'15 Student Post-Survey Results
- FY'15 Teacher Survey Results
- FY'16 Pre-Survey Results

@Scale Future City Working Cities Expansion Project

NE Regional Future City Working Cities Expansion Project Pre-Survey

NE Future City Working Cities Expansion Project has developed this survey to see how much the Future City program helps students learn. This is not a test. We are asking you questions so we can see how well our program works. You may not know all the answers. That's OK. Please do your best. Thank you!

1. Name:

2. School:

3. Below are sentences about you. Please circle one and tell us how much you agree or disagree:

I am good at building things:	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
I am good at designing things:	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
I am good at solving problems:	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
I am good at brainstorming: (thinking of ideas).	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

4. Please tell us how much you agree or disagree with each sentence below:

When working on a project it's better to work with a team of people than by myself.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
When working on a project it's better to work with people who are like me than to work with people who are different (different backgrounds, gender, age, race, disability, where they live).	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

5. Carlos is a civil engineer for a company hired by the city to design a better system for growing enough food (vegetables and protein) within its city limits to feed all their citizens. His challenge is to develop a productive and sustainable urban farming system to provide enough food for everyone within the city. Please describe the steps in the design process that Carlos would follow to meet this challenge? (Please write on the back of this page if you need more space.)

6. Name one thing an engineer might have designed that is an important part of your life.

7. Please tell us how much you agree or disagree with each sentence below:

Engineers FIRST find out what people need and THEN they design and make things to fill those needs.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
Engineers usually stick with one idea, rather than trying out lots of possible ideas.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
Engineers figure out the best materials to use and how to turn them into things we use every day.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

8. Please tell us how much you agree or disagree with each sentence below:

I like math.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
I like science.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
Doing well in math at school is important.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
Doing well in science at school is important.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
Going to college is important to me.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

9. What made you decide to join Future City?

10. Are you related to an engineer? Yes/no

NE Regional Future City Working Cities Expansion Project Pre-Survey

11. Are you a: Boy/Girl

12. How old are you?

13. What grade are you in?

14. Which of the following best describes your heritage? Please choose all that apply. You can choose not to reply.

Afro-American (black)
Asian
Caucasian (white)
Hispanic
Native North American
Other (please specify):
Prefer not to reply

15. What do you want to be when you grow up?

NE Regional Future City Working Cities Expansion Project Post-Survey

NE Future City Working Cities Expansion Project has developed this survey to see how much the Future City program helps students learn. This is not a test. We are asking you questions so we can see how well our program works. You may not know all the answers. That's OK. Please do your best. Thank you!

1. Name:

2. School:

3. Below are sentences about you. Please circle one and tell us how much you agree or disagree:

I am good at building things:	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
I am good at designing things:	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
I am good at solving problems:	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
I am good at brainstorming: (thinking of ideas).	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

4. Please tell us how much you agree or disagree with each sentence below:

When working on a project it's better to work with a team of people than by myself.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
When working on a project it's better to work with people who are like me than to work with people who are different (different backgrounds, gender, age, race, disability, where they live).	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

5. Carlos is a civil engineer for a company hired by the city to design a better system for growing enough food (vegetables and protein) within its city limits to feed all their citizens. His challenge is to develop a productive and sustainable urban farming system to provide enough food for everyone within the city. Please describe the steps in the design process that Carlos would follow to meet this challenge? (Please write on the back of this page if you need more space.)

6. Name one thing an engineer might have designed that is an important part of your life.

7. Please tell us how much you agree or disagree with each sentence below:

Engineers FIRST find out what people need and THEN they design and make things to fill those needs.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
Engineers usually stick with one idea, rather than trying out lots of possible ideas.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
Engineers figure out the best materials to use and how to turn them into things we use every day.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

8. Please tell us how much you agree or disagree with each sentence below:

I like math.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
I like science.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
Doing well in math at school is important.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
Doing well in science at school is important.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
Going to college is important to me.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

9. Please tell us about your experience with Future City by telling us what you thought of each part of Future City:

Designing a city in SIM City	I Loved It	I Liked It	In the Middle	I Didn't Like it Much	I Didn't like it at All	I didn't Do This

NE Regional Future City Working Cities Expansion Project Post-Survey

The essay	I Loved It	I Liked It	In the Middle	I Didn't Like it Much	I Didn't like it at All	I didn't Do This
Building a model	I Loved It	I Liked It	In the Middle	I Didn't Like it Much	I Didn't like it at All	I Didn't Do This
Working in a team	I Loved It	I Liked It	In the Middle	I Didn't Like it Much	I Didn't like it at All	I Didn't Do This
Working with an engineer	I Loved It	I Liked It	In the Middle	I Didn't Like it Much	I Didn't like it at All	I Didn't Do This
Preparing a presentation	I Loved It	I Liked It	In the Middle	I Didn't Like it Much	I Didn't like it at All	I Didn't Do This
Delivering the presentation	I Loved It	I Liked It	In the Middle	I Didn't Like it Much	I Didn't like it at All	I Didn't Do This
The competition	I Loved It	I Liked It	In the Middle	I Didn't Like it Much	I Didn't like it at All	I Didn't Do This

10. What new knowledge did you gain, or what skills did you improve, by participating in Future City?

11. Please tell us how much you agree with each of the following statements: *Future City…*

…taught me that I and my classmates can create something on our own without direction from a teacher.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…has helped me to see the value in working with a team to solve problems.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…has made me interested in doing other engineering clubs or activities.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…has helped me see that math and science are important to my future.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

…has helped me to appreciate all the engineering that goes into a city.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…has made me more aware of civics issues like politics and taxes.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…has given me an outlet for my creativity and imagination.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…has given me a place where I fit in.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…has given me a chance to use my creative writing skills.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…has boosted my confidence in myself.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…has helped me learn the value of ethics.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…has helped me in my other classes. (Please list)	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

Classes:

12. Did your group have an engineer mentor?   Yes / No

13. Please tell us how much you agree or disagree with each of the following sentences: *My Future City mentor (the engineer)…*

…helped me to see myself as an engineer someday.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…explained what s/he does in his job.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree
…was important in guiding us on the project.	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

14. Which of the following is true of your Future City experience?

The kids in my group mostly made the design decisions. Yes / No
The adults (teacher and/or mentor) mostly made the design decisions. Yes / No
The kids and adults shared the responsibility equally for the design decisions. Yes / No

15. Would you participate in Future City again, if you could? Yes / No / Maybe

16. What did you like MOST about Future City? What surprised you most about your experiences in Future City?

17. What did you like LEAST about Future City? How can we improve the Future City program?

18. What do you want to be when you grow up?

19. Would you recommend Future City to friends? Yes / No

NE Regional Future City Working Cities Expansion Project Post-Survey

Q1 **Name:**

Answered: 48   Skipped: 0

#	Responses	Date
1	Gerge	12/31/2015 11:06 AM
2	Aatrid Marte	12/31/2015 10:36 AM
3	Niyonna Sharpe	12/31/2015 10:16 AM
4	Bellee Marquez	12/31/2015 10:14 AM
5	Dairin collazo	12/31/2015 10:11 AM
6	Nathalie Gaspar	12/31/2015 10:10 AM
7	Shaumir Alsaime	12/31/2015 10:07 AM
8	Lesson Nimely	12/31/2015 10:02 AM
9	Michelle Martinez	12/31/2015 9:09 AM
10	Gwen	12/31/2015 9:07 AM
11	Kevin Santos	12/30/2015 4:34 PM
12	Kevin Willett	12/30/2015 4:30 PM
13	Alexandria Doerflen	12/30/2015 4:26 PM
14	Mohammad Hussain	12/30/2015 3:58 PM
15	Eric Sauza	12/30/2015 3:34 PM
16	Alexander David Rouleau-McBridge	12/30/2015 3:31 PM
17	Calvin Tran	12/30/2015 3:29 PM
18	Lucas Maul	12/30/2015 12:20 PM
19	Andres Gomez	12/30/2015 12:17 PM
20	Kunchok Khabhay	12/30/2015 12:14 PM
21	Adrian Rodriquez	12/30/2015 12:11 PM
22	Marcos DeAguiar	12/30/2015 12:05 PM
23	Nikita Puri	12/30/2015 11:59 AM
24	Dipa Lamsal	12/30/2015 11:55 AM
25	Melissa Poudel	12/30/2015 11:50 AM
26	Walter Jacobs	12/30/2015 11:48 AM
27	Mary Sharn	12/30/2015 11:45 AM
28	Ethan Torino	12/30/2015 11:36 AM
29	William Rotondo	12/30/2015 11:33 AM
30	Kentra Greene	12/30/2015 11:30 AM
31	Chantelle Pena	12/23/2015 4:35 PM
32	Erickson Revas	12/23/2015 4:34 PM
33	Mia angeliacle Ormaza	12/23/2015 4:32 PM
34	Jayla Garcia	12/23/2015 3:51 PM
35	Albert Reyes	12/23/2015 3:05 PM

36	Delby Murena Jr	12/23/2015 3:01 PM
37	Isatys Perez	12/23/2015 2:54 PM
38	Oliver Piantini	12/23/2015 2:52 PM
39	Jeremias Castillo	12/23/2015 2:48 PM
40	Branden Garcia	12/23/2015 2:43 PM
41	Adriana Diaz	12/23/2015 2:41 PM
42	Houda Haiti	12/23/2015 2:39 PM
43	Mckayla Mckennon	12/23/2015 2:37 PM
44	Karen maradiaga	12/23/2015 2:34 PM
45	Marcus Canada	12/23/2015 2:27 PM
46	Conrad Mo	12/23/2015 2:22 PM
47	Ryan Oshea	12/23/2015 2:20 PM
48	Amy Jimenez	12/23/2015 1:54 PM

Q2 School:

Answered: 48   Skipped: 0

| #	Responses	Date
1	PVCICS (Pioneer Valley Chinese Immersion Charter School)	12/31/2015 11:06 AM
2	Lynn: Pickering Middle School	12/31/2015 10:36 AM
3	Lynn: Breed	12/31/2015 10:16 AM
4	Lynn: Pickering Middle School	12/31/2015 10:14 AM
5	Lynn: Marshall Middle School	12/31/2015 10:11 AM
6	Lynn: Marshall	12/31/2015 10:10 AM
7	Lynn: Breed Middle School	12/31/2015 10:07 AM
8	Lynn: Breed	12/31/2015 10:02 AM
9	Lynn: Pickering Middle School	12/31/2015 9:09 AM
10	Lynn: Girls Inc.	12/31/2015 9:07 AM
11	Revere: S.B.A Middle School	12/30/2015 4:34 PM
12	Revere: Susan B. Anthony middle school	12/30/2015 4:30 PM
13	Revere: SBA Middle	12/30/2015 4:26 PM
14	Revere: Susan B Anthony Middle School	12/30/2015 3:58 PM
15	Everett: Lafayette School	12/30/2015 3:34 PM
16	Everett: Lafayette	12/30/2015 3:31 PM
17	Everett: Lafayette	12/30/2015 3:29 PM
18	Everett: Lafayette School	12/30/2015 12:20 PM
19	Everett: Lafayette	12/30/2015 12:17 PM
20	Everett: Lafayette	12/30/2015 12:14 PM
21	Everett: LaFayette School	12/30/2015 12:11 PM
22	Everett: Lafayette School	12/30/2015 12:05 PM

23	Somerville: Argenziano	12/30/2015 11:59 AM
24	Somerville: Argenziona	12/30/2015 11:55 AM
25	Somerville: AFAS	12/30/2015 11:50 AM
26	Somerville: Argenziano	12/30/2015 11:48 AM
27	Somerville: Argenziano School	12/30/2015 11:45 AM
28	Somerville: Afas	12/30/2015 11:36 AM
29	Somerivlle: Argenziano	12/30/2015 11:33 AM
30	Somerville: Argenziano	12/30/2015 11:30 AM
31	Lawrence: Lawrence Family Development Charter School	12/23/2015 4:35 PM
32	Lawrence: Charter School	12/23/2015 4:34 PM
33	Lawrence: Lawrence Family Charter School	12/23/2015 4:32 PM
34	Lawrence: Lawrence Development Charter School	12/23/2015 3:51 PM
35	Lawrence: Lawrence Family Development Charter School	12/23/2015 3:05 PM
36	Lawrence: Lawrence Family Development Charter School	12/23/2015 3:01 PM
37	Lawrence: Lawrence Family Development Charter School	12/23/2015 2:54 PM
38	Lawrence: Lawrence Family Development Charter School	12/23/2015 2:52 PM
39	Lawrence Family Development charter schools	12/23/2015 2:48 PM
40	Chelsea: Wright Science and technology academey	12/23/2015 2:43 PM
41	Chelsea: WSTA	12/23/2015 2:41 PM
42	Chelsea: WSTA	12/23/2015 2:39 PM
43	Chelsea: Wright School Academy	12/23/2015 2:37 PM
44	Chelsea: WSIA	12/23/2015 2:34 PM
45	LEAP: Collins Middle School	12/23/2015 2:27 PM
46	LEAP: Collins Middle School	12/23/2015 2:22 PM
47	LEAP: Collins Middle School	12/23/2015 2:20 PM
48	LEAP: Collins Middle School	12/23/2015 1:54 PM

Q3 Below are sentences about you. Please circle one and tell us how much you agree or disagree:

Answered: 48   Skipped: 0
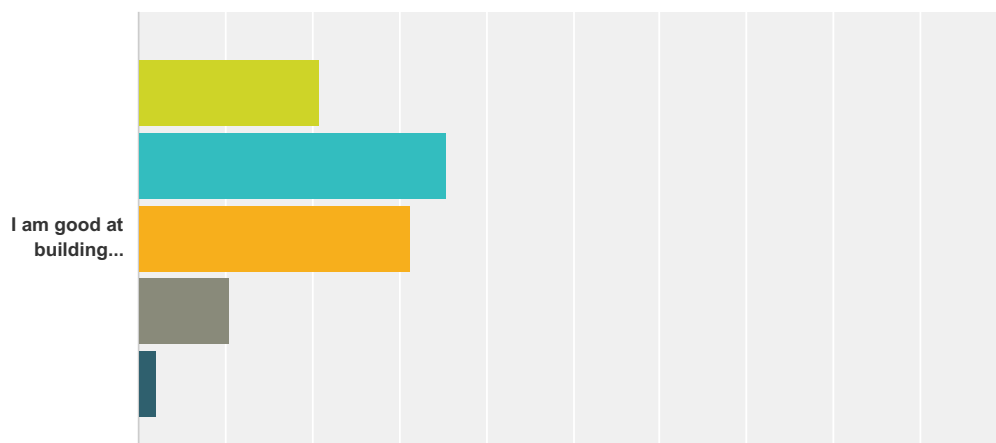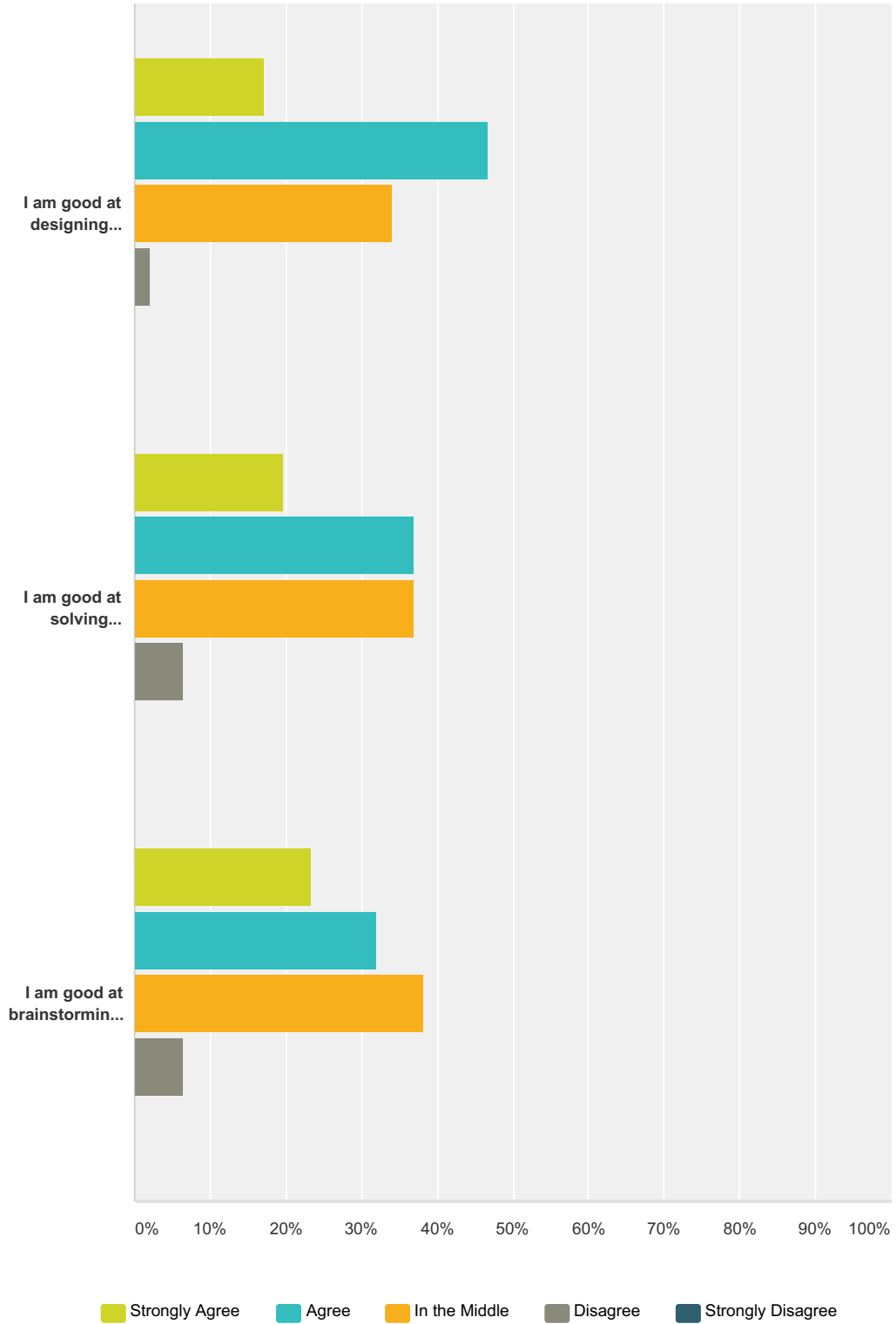
3 / 18

FY'15 Future City Student Pre Survey

	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
I am good at building things:	**20.83%** 10	**35.42%** 17	**31.25%** 15	**10.42%** 5	**2.08%** 1	48
I am good at designing things:	**17.02%** 8	**46.81%** 22	**34.04%** 16	**2.13%** 1	**0.00%** 0	47
I am good at solving problems:	**19.57%** 9	**36.96%** 17	**36.96%** 17	**6.52%** 3	**0.00%** 0	46

I am good at brainstorming (thinking of ideas):	**23.40%** 11	**31.91%** 15	**38.30%** 18	**6.38%** 3	**0.00%** 0	47

Q4 Please tell us how much you agree or disagree with each sentence below:

Answered: 48   Skipped: 0

- Strongly Agree
- Agree
- In the Middle
- Disagree
- Strongly Disagree

	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
When working on a project it's better to work with a team of people than by myself.	**45.83%** 22	**20.83%** 10	**29.17%** 14	**4.17%** 2	**0.00%** 0	48
When working on a project it's better to work with people who are like me than to work with people who are like me than to work with people who are different (different backgrounds, gender, age, race, disability, where they live).	**6.38%** 3	**6.38%** 3	**34.04%** 16	**21.28%** 10	**31.91%** 15	47

Q5 Carlos is a civil engineer for a company hired by the city to design a better system for growing enough food (vegetables and protein) within its city limits to feed all their

citizens. His challenge is to develop a productive and sustainable urban farming system to provide enough food for everyone within the city. Please describe the steps in the design process that Carlos would follow to meet this challenge?

Answered: 34   Skipped: 14

#	Responses	Date
1	He might have trouble with this plan but our team is choosing to build an entire city underground with farm land and farmbots, computers/robots, programmed to take care of places on a farm) on top giving them plenty of space to survive and live happily with more food and farming space than most other cities.	12/31/2015 11:06 AM
2	first think then design on paper next get the tools lastly make it come to life	12/31/2015 10:10 AM
3	He can build in the future a fast personal train or bus that take you where you want to go by typeing in the state or city and it would have a fast/slow button	12/31/2015 10:02 AM
4	He first would need to know how much space he has to fit his idea in. Then he needs to learn the limitations that might set him back (time, cost, ect.). Finally, he would need to plan and build.	12/30/2015 4:34 PM
5	- ask questions to get more info on the topic - gather information or urban farming - make a hypothesis (sisses) on what urban farming would do - conduct experiment/ create a model of the places for this - observe and record data shown to match with knowledge - share results with people and conduct creation of final product	12/30/2015 4:30 PM
6	Identify problem Brainstorm Ideas design Prototype test prototype tweak/edit/rebuild prototype	12/30/2015 4:26 PM
7	What he would do is first create different prototypes. Then we will test them. Then we will ask the people finally he will move and we it.	12/30/2015 3:58 PM
8	1. brainstorm ideas 2. see which is the best idea 3. use that idea	12/30/2015 3:34 PM
9	Needs lots of sun and space	12/30/2015 3:31 PM
10	He would have to design it before he gets the materials to build.	12/30/2015 3:29 PM
11	He needs to make a design of it or 3D design of it before he actually does it.	12/30/2015 12:17 PM
12	get a group of people, brainstorm, make the design, make a prototype, then make one	12/30/2015 12:14 PM
13	1. design the living area 2. design Farm land 3. get materials 4. prototype	12/30/2015 12:11 PM
14	1. Get materials 2. Build stuff 3. Finish project	12/30/2015 12:05 PM
15	1st Carlos will make a design for his city. 2nd He will come up with problems and solutions 3rd He will modify his designs according to the result of step 2 4th Carlos will build a model 5th He will test his model 6th He will build a final structure from what he has learned.	12/30/2015 11:59 AM
16	Design--> build--> test --> rebuib	12/30/2015 11:55 AM
17	First, Carlos needs to see how many people are in the city. Then he needs to design. Find a Problem. Find the solution, and start building the building.	12/30/2015 11:50 AM
18	Ask questions, Do research, Build	12/30/2015 11:48 AM
19	Make abandon buildings to farms rooftop gradens underground farms	12/30/2015 11:45 AM
20	1. Define the problem 2. Research ideas 3. Brainstorm the design 4. Buid prototype 5. test teh idea 6. communicate the results 7. redisn the prototype	12/30/2015 11:36 AM
21	Carlos will need to find the problem, brainstorm ideas, research older models, design his model, create his model, then lastly redisign his model.	12/30/2015 11:33 AM
22	1. Describe Problem 2. research 3. brainstorm 4. draw design 5. build model 6. test 7. redesign	12/30/2015 11:30 AM
23	Imagine, plan create ask, design, improve	12/23/2015 4:34 PM

24	The first thing he should do is find out his population. Next he should research how much or how common is that recource in that area. If that recource is plentiful you need to make sure that your recource is sustainable for the population. If the resource is scarce.	12/23/2015 4:32 PM
25	1. Ask 2. Imagine 3. Plan it 4. Create 5. improve 6. repeat	12/23/2015 3:01 PM
26	1. Research different ideas 2. Choose 1 idea 3. design 4. create	12/23/2015 2:52 PM
27	Ask, imagine, create	12/23/2015 2:48 PM
28	First see what the problem is then get all the stuff he needs, and then do the problem	12/23/2015 2:43 PM
29	I don't know	12/23/2015 2:39 PM
30	1. think of an idea 2. draw it out (sketch) 3. find out what your making it out of 4. do it (make it)	12/23/2015 2:37 PM
31	I don't know	12/23/2015 2:34 PM
32	1. research, 2. experiments, 3. model, 4. build	12/23/2015 2:27 PM
33	Go underground make room in the sewer system and use artificial light for grown food	12/23/2015 2:20 PM
34	Build green house on top of roofs (with permission) and plant things with protein.	12/23/2015 1:54 PM

Q6 Name one thing an engineer might have designed that is an important part of your life.

Answered: 47   Skipped: 1

#	Responses	Date
1	Our houses heating system is well needed. Our house is tall and skinny and so we rarely spend over $300 on heating every year.	12/31/2015 11:06 AM
2	a phon	12/31/2015 10:36 AM
3	money	12/31/2015 10:16 AM
4	car	12/31/2015 10:14 AM
5	a house	12/31/2015 10:11 AM
6	cars, computers, celphone	12/31/2015 10:10 AM
7	Well maybe a stop light or a gps	12/31/2015 10:02 AM
8	My bed	12/31/2015 9:09 AM
9	math	12/31/2015 9:07 AM
10	The Computer	12/30/2015 4:34 PM
11	computers	12/30/2015 4:30 PM
12	Mechanical Pencil	12/30/2015 4:26 PM
13	A phone	12/30/2015 3:58 PM
14	a phone, stove, microwave	12/30/2015 3:34 PM
15	toilet	12/30/2015 3:31 PM
16	Lead pencils.	12/30/2015 3:29 PM
17	car	12/30/2015 12:20 PM
18	Fridge	12/30/2015 12:17 PM
19	My House	12/30/2015 12:14 PM
20	My school	12/30/2015 12:11 PM
21	showers	12/30/2015 12:05 PM

22	Cars. Wee use to get from one place to another. Airplanes - to travel overseas.	12/30/2015 11:59 AM
23	Coumputers	12/30/2015 11:55 AM
24	My house	12/30/2015 11:50 AM
25	Computer	12/30/2015 11:48 AM
26	My iphone, toilet, car, indoor heating, fidge, apps, jackets, tv, laptop	12/30/2015 11:45 AM
27	Radiator	12/30/2015 11:36 AM
28	Computer, for research and other concepts	12/30/2015 11:33 AM
29	refrigerater	12/30/2015 11:30 AM
30	Netflix	12/23/2015 4:35 PM
31	energy	12/23/2015 4:34 PM
32	A shelter is important.	12/23/2015 4:32 PM
33	netflix	12/23/2015 3:51 PM
34	one thing an engineer might have designed that is important part of life is good stability	12/23/2015 3:05 PM
35	Computer	12/23/2015 3:01 PM
36	Bed	12/23/2015 2:54 PM
37	a refrigerator	12/23/2015 2:52 PM
38	light bulb	12/23/2015 2:48 PM
39	An oven	12/23/2015 2:43 PM
40	my phone	12/23/2015 2:41 PM
41	house	12/23/2015 2:39 PM
42	my phone	12/23/2015 2:37 PM
43	house	12/23/2015 2:34 PM
44	stoves	12/23/2015 2:27 PM
45	I phone	12/23/2015 2:22 PM
46	bridge lifeing space tunnels roads	12/23/2015 2:20 PM
47	Shower (pluming)	12/23/2015 1:54 PM

Q7 Please tell us how much you agree or disagree with each sentence below:

Answered: 48   Skipped: 0
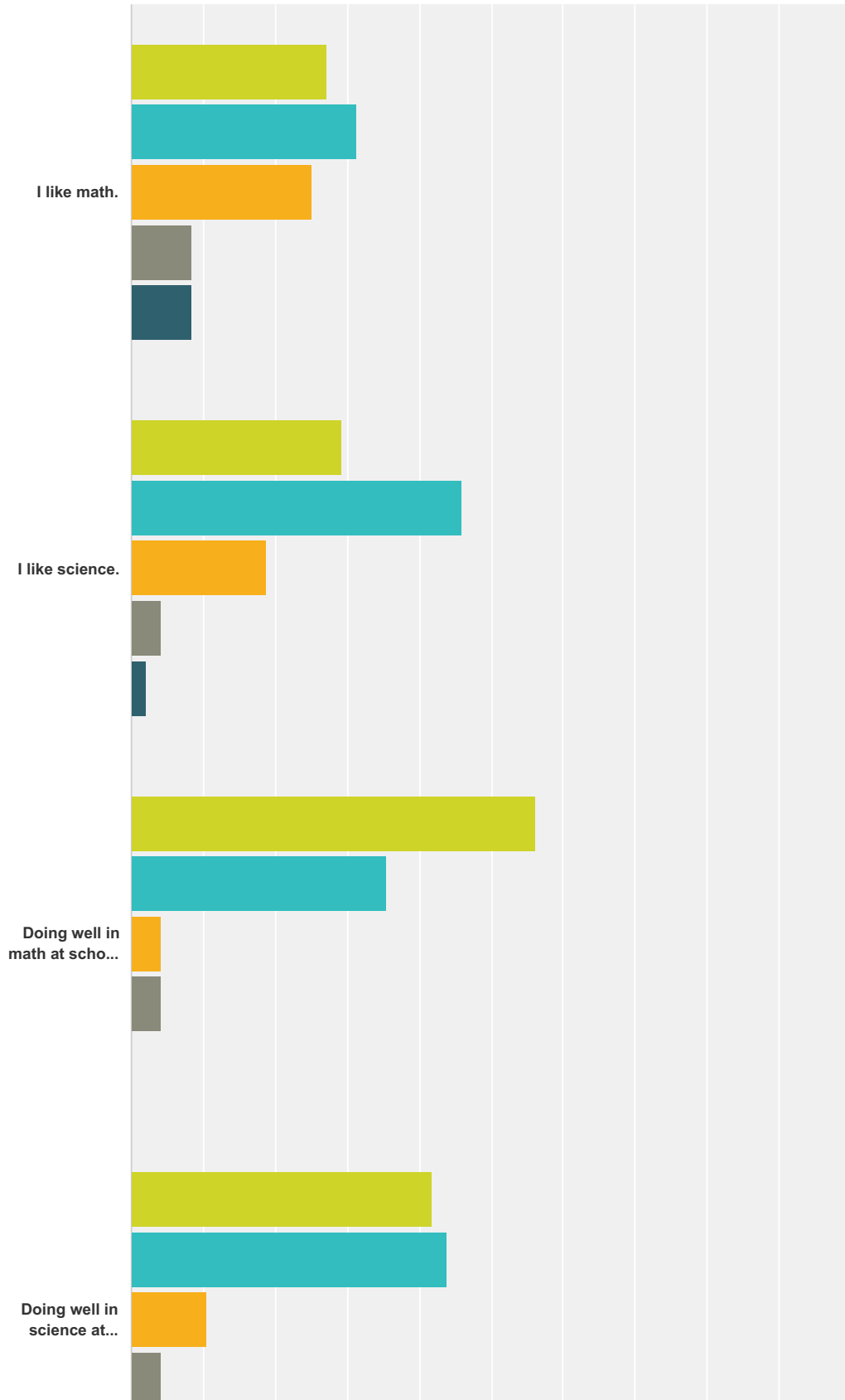
FY'15 Future City Student Pre Survey
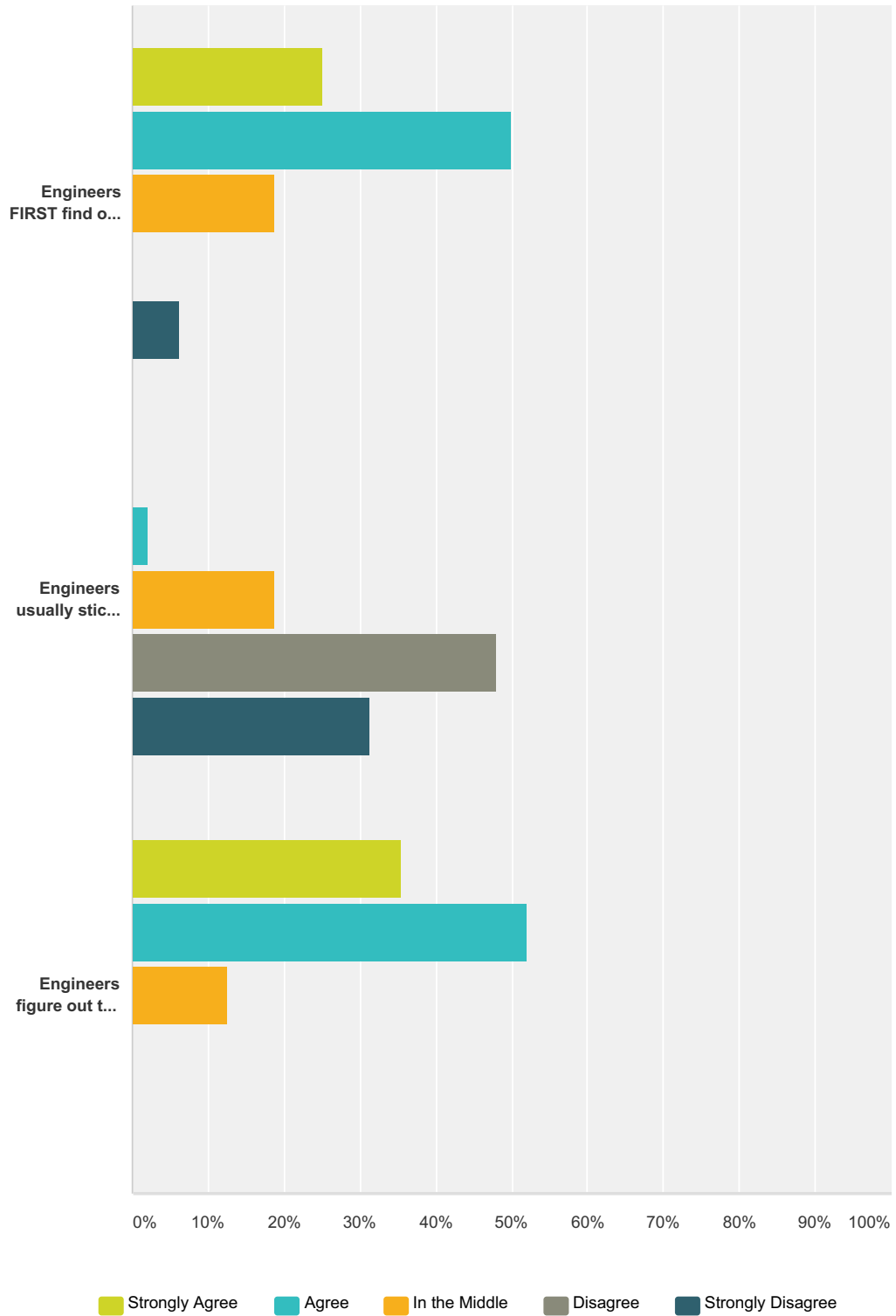
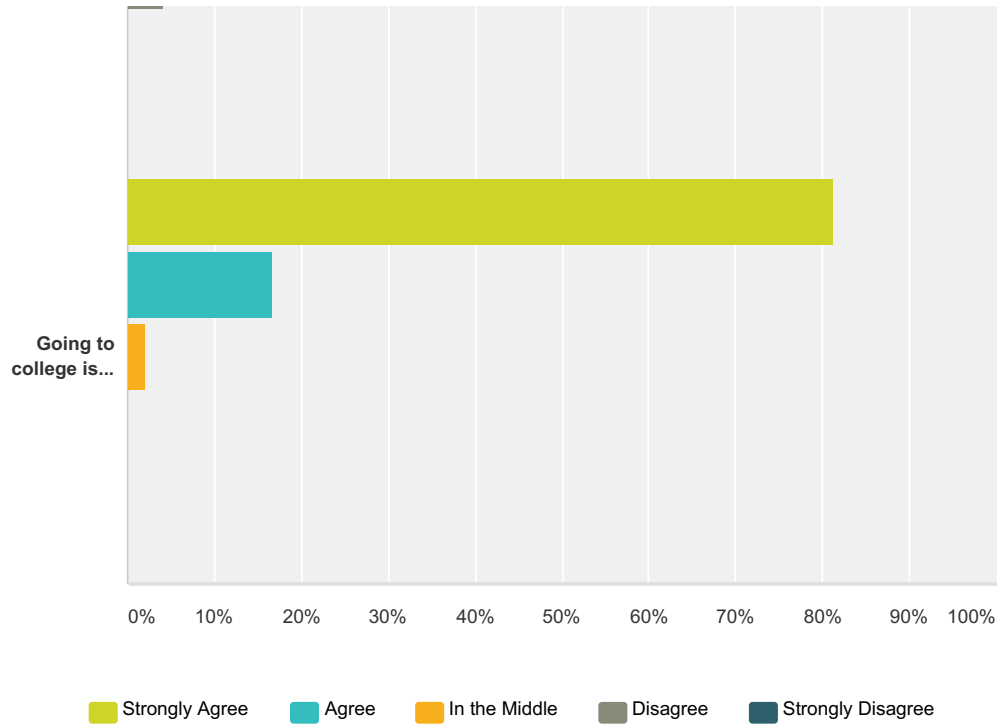|	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
Engineers FIRST find out what people need and THEN they design and make things to fill those needs.	**25.00%** 12	**50.00%** 24	**18.75%** 9	**0.00%** 0	**6.25%** 3	48
Engineers usually stick with one idea, rather than trying out lots of possible ideas.	**0.00%** 0	**2.08%** 1	**18.75%** 9	**47.92%** 23	**31.25%** 15	48
Engineers figure out the best materials to use and how to turn them into things we use every day.	**35.42%** 17	**52.08%** 25	**12.50%** 6	**0.00%** 0	**0.00%** 0	48

Q8 Please tell us how much you agree or disagree with each sentence below:

Answered: 48   Skipped: 0

	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
I like math.	**27.08%** 13	**31.25%** 15	**25.00%** 12	**8.33%** 4	**8.33%** 4	48
I like science.	**29.17%** 14	**45.83%** 22	**18.75%** 9	**4.17%** 2	**2.08%** 1	48
Doing well in math at school is important.	**56.25%** 27	**35.42%** 17	**4.17%** 2	**4.17%** 2	**0.00%** 0	48
Doing well in science at school is important.	**41.67%** 20	**43.75%** 21	**10.42%** 5	**4.17%** 2	**0.00%** 0	48
Going to college is important to me.	**81.25%** 39	**16.67%** 8	**2.08%** 1	**0.00%** 0	**0.00%** 0	48

Q9 What made you decide to join Future City?

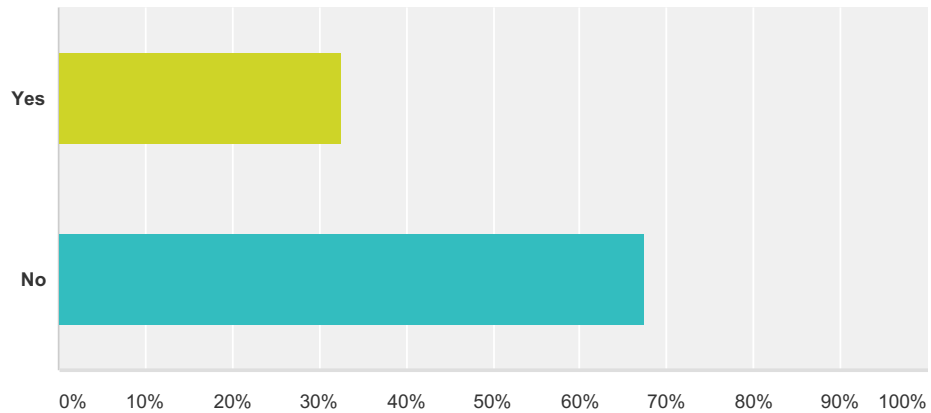**Answered: 47   Skipped: 1**

#	Responses	Date
1	It mixed art, science, and construction; some of my favorite subjects to study. Also, my friends were all joining.	12/31/2015 11:06 AM
2	my friend was in it and it sounded fun	12/31/2015 10:36 AM
3	because I like to bold	12/31/2015 10:16 AM
4	it's fun and I like building things	12/31/2015 10:14 AM
5	I would love to explore new ways to build things	12/31/2015 10:11 AM
6	I like to invent stuff	12/31/2015 10:10 AM
7	Building things	12/31/2015 10:07 AM

8	I like building things and thinking of ways how the future is going to be because I something think about how it would be like in the future and it REALLY makes me think even more it's just YAA!	12/31/2015 10:02 AM
9	because it is fun	12/31/2015 9:07 AM
10	I love the idea of planning a city, were people can thrive and prospering have a good layout and balance.	12/30/2015 4:34 PM
11	When I saw that there was a program that allowed children to help each other make a virtual world to better good urban farming and use my skills of engineering I applied to help create it.	12/30/2015 4:30 PM
12	I enjoy engineering and building things so I chose the class	12/30/2015 4:26 PM
13	I thought it might be cool to design my own city	12/30/2015 3:58 PM
14	to try out new projects and also help out in the project	12/30/2015 3:34 PM
15	I want to be an engineer, and I like making things so this seems perfect	12/30/2015 3:31 PM
16	It interests me.	12/30/2015 3:29 PM
17	I wanted to try something new	12/30/2015 12:20 PM
18	Its fun	12/30/2015 12:17 PM
19	I like to build things	12/30/2015 12:14 PM
20	Thought it was going to be Fun	12/30/2015 12:11 PM
21	To be with my friends and have fun	12/30/2015 12:05 PM
22	I wanted to contribute in building a city of our design. I wanted to have fun with it. Engineering sounds fun.	12/30/2015 11:59 AM
23	I like building and desiging	12/30/2015 11:55 AM
24	I used to do engineering 3 years ago and wanted to do it again.	12/30/2015 11:50 AM
25	It seemed like a fun club.	12/30/2015 11:48 AM
26	I like building things and group projects.	12/30/2015 11:45 AM
27	I wanted to work with people to make a better future	12/30/2015 11:36 AM
28	I thought that I would have a lot of fun but I am also thinking about being an engineer.	12/30/2015 11:33 AM
29	Mr. Coughlin told the class about it and I was like this is for me!!	12/30/2015 11:30 AM
30	It looked cool and fun	12/23/2015 4:35 PM
31	To see what I can do	12/23/2015 4:34 PM
32	Well, I very much enjoyed the expirience that I had last year, but people were sayuing that the only reason I won was because of my partner, so I wanted to test myself and see if I can reach higher.	12/23/2015 4:32 PM
33	I like to build	12/23/2015 3:51 PM
34	I made the decision to join Future City because my Father used to be an engineer.	12/23/2015 3:05 PM
35	I want the future to be great because i want to become a scientist and love the air	12/23/2015 3:01 PM
36	I want clubs to go on my trasncript	12/23/2015 2:54 PM
37	Knowing that I could create something that could be really cool.	12/23/2015 2:52 PM
38	to put on transcript	12/23/2015 2:48 PM
39	The idea that we were going to make a city with knowledge and we were going to build it	12/23/2015 2:43 PM
40	I thought it would be fun to try something new and my parents wanted me to join something	12/23/2015 2:41 PM
41	Help you go to college and you get to build	12/23/2015 2:39 PM
42	I think it's fun and I'm good at designing things	12/23/2015 2:37 PM
43	help you go to collogeg	12/23/2015 2:34 PM
44	I like building	12/23/2015 2:27 PM
45	A teacher suggested it	12/23/2015 2:22 PM
46	to have fun / to do something	12/23/2015 2:20 PM

47	It was a competition	12/23/2015 1:54 PM

Q10 Are you related to an engineer?

Answered: 46   Skipped: 2

Answer Choices	Responses	
Yes	**32.61%**	15
No	**67.39%**	31
Total		**46**

Q11 Are you a:

Answered: 46   Skipped: 2
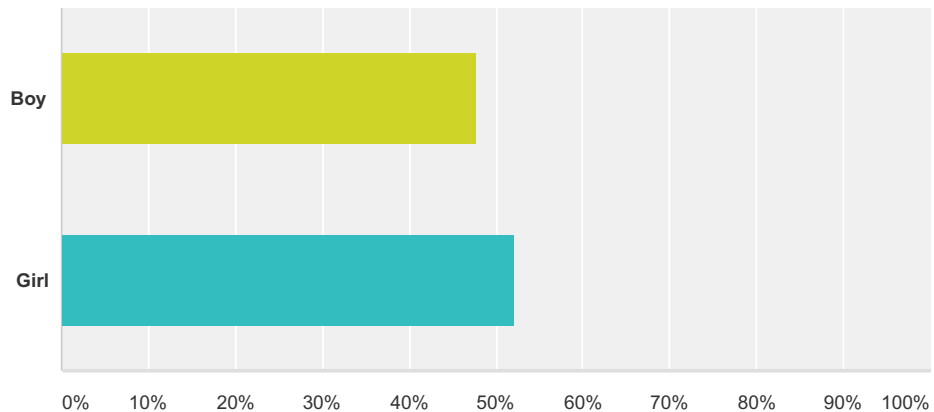
Answer Choices	Responses	
Boy	**47.83%**	22
Girl	**52.17%**	24
Total		**46**

Q12 How old are you?

Answered: 45   Skipped: 3
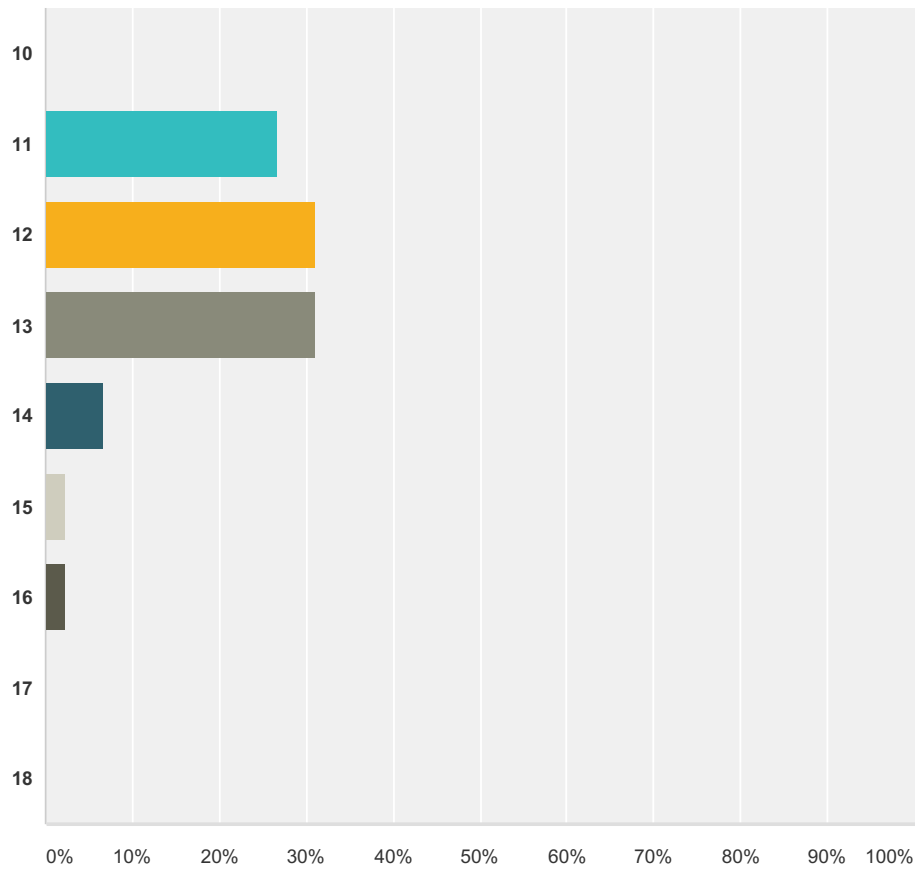
Answer Choices	Responses	
10	0.00%	0
11	26.67%	12
12	31.11%	14
13	31.11%	14
14	6.67%	3
15	2.22%	1
16	2.22%	1
17	0.00%	0
18	0.00%	0
Total		45

Q13 What grade are you in?

Answered: 45   Skipped: 3
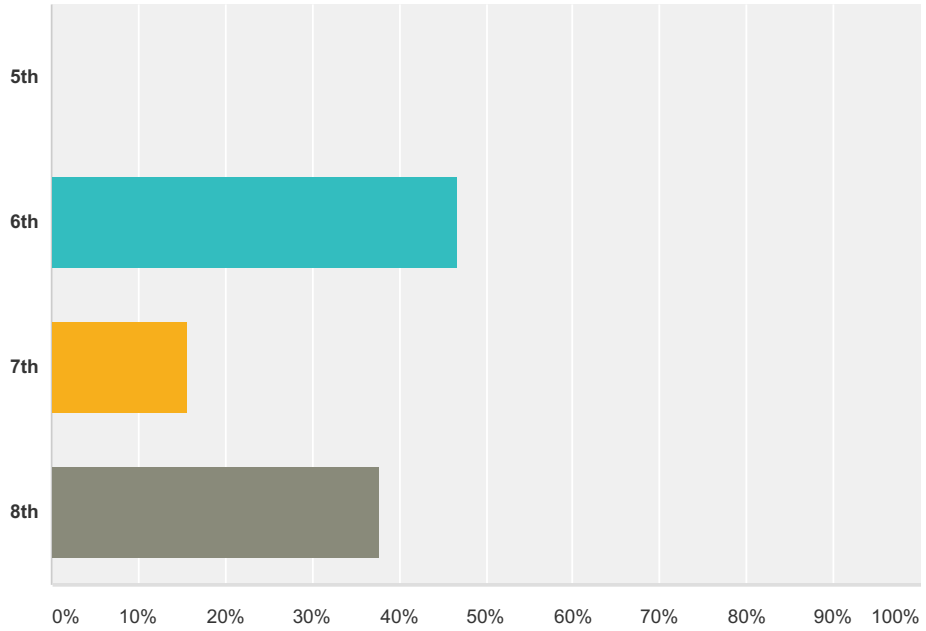
Answer Choices	Responses	
5th	**0.00%**	0
6th	**46.67%**	21
7th	**15.56%**	7
8th	**37.78%**	17
Total		**45**

Q14 Which of the following best descries your heritage? Please choose all that apply. You can choose not to reply.

Answered: 43   Skipped: 5

FY'15 Future City Student Pre Survey
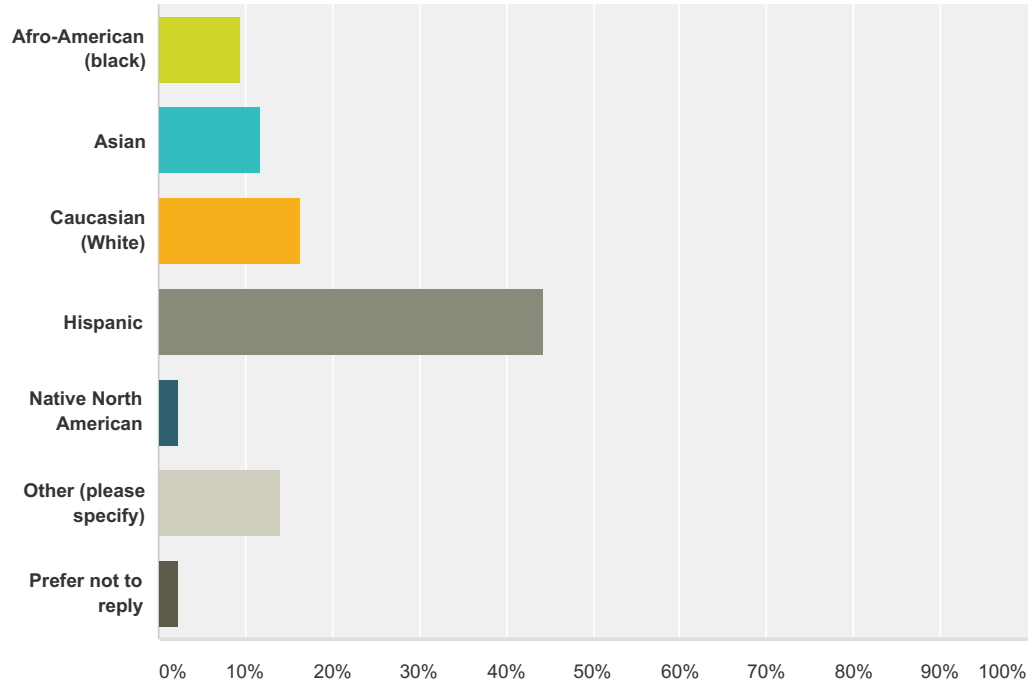
Answer Choices	Responses	
Afro-American (black)	9.30%	4
Asian	11.63%	5
Caucasian (White)	16.28%	7
Hispanic	44.19%	19
Native North American	2.33%	1
Other (please specify)	13.95%	6
Prefer not to reply	2.33%	1
Total		**43**

#	Other (please specify)	Date
1	Italy, Mexico	12/31/2015 10:14 AM
2	Haitia America	12/31/2015 10:07 AM
3	Asian	12/31/2015 9:07 AM
4	irish/canadian	12/30/2015 3:31 PM
5	Hispanic	12/30/2015 12:11 PM
6	Brazillian	12/30/2015 12:05 PM
7	Nepali	12/30/2015 11:50 AM
8	Jewish	12/30/2015 11:48 AM
9	Sudanese	12/30/2015 11:45 AM
10	Haitian and chericy indian	12/30/2015 11:30 AM
11	and Native North American	12/23/2015 3:05 PM
12	white	12/23/2015 2:48 PM

13	White, english, Arabic...	12/23/2015 2:39 PM
14	and other	12/23/2015 2:37 PM
15	but I still speak English	12/23/2015 2:34 PM
16	and Afro-American (black)	12/23/2015 2:27 PM

Q15 What do you want to be when you grow up?

Answered: 48   Skipped: 0

#	Responses	Date
1	n/a	12/31/2015 11:06 AM
2	A veternarian	12/31/2015 10:36 AM
3	I want to be a cheff	12/31/2015 10:16 AM
4	do Movies	12/31/2015 10:14 AM
5	n/a	12/31/2015 10:11 AM
6	I want to be a chef	12/31/2015 10:10 AM
7	a Layer or Pedrician	12/31/2015 10:07 AM
8	I don't know I don't know what I'm really good BUT I'm still figure it out	12/31/2015 10:02 AM
9	I want to be a lawyer or a math teacher	12/31/2015 9:09 AM
10	disczaner	12/31/2015 9:07 AM
11	A Technical Engineer	12/30/2015 4:34 PM
12	Believe it or not when I grow up I want to be an engineer/architect that has the privlage to design and create things for the better good of the world.	12/30/2015 4:30 PM
13	I would like to be an engineer, videogamer designer, and scientist/chemist	12/30/2015 4:26 PM
14	I want to be a software or chemical engineer.	12/30/2015 3:58 PM
15	I still have no idea	12/30/2015 3:34 PM
16	Mechanical or chemical engineer or petroleumengineer	12/30/2015 3:31 PM
17	I haven't decided yet.	12/30/2015 3:29 PM
18	n/a	12/30/2015 12:20 PM
19	FIFA player	12/30/2015 12:17 PM
20	cop	12/30/2015 12:14 PM
21	Mechanical engineer	12/30/2015 12:11 PM
22	I don't know yet	12/30/2015 12:05 PM
23	I'm not sure. There are different things that I want to try.	12/30/2015 11:59 AM
24	Software engineer	12/30/2015 11:55 AM
25	A business woman	12/30/2015 11:50 AM
26	A Director	12/30/2015 11:48 AM
27	lawyer, publisher, enginerre, civil enginerre, mariene biolegst, rich, important in the field of everything, gradute of Ivy leauge College.	12/30/2015 11:45 AM
28	A chef or a scientist	12/30/2015 11:36 AM
29	A civil engineer	12/30/2015 11:33 AM

30	Lawyer or cosmotalagest or womens actives.	12/30/2015 11:30 AM
31	A Hollywood Actress who works on TV and movies.	12/23/2015 4:35 PM
32	chef	12/23/2015 4:34 PM
33	I want to become an environmental engineer or a teacher.	12/23/2015 4:32 PM
34	Millionare	12/23/2015 3:51 PM
35	When I grow up, I want to be a author.	12/23/2015 3:05 PM
36	scientist / youtuber :)	12/23/2015 3:01 PM
37	I don't know.	12/23/2015 2:54 PM
38	I want to be a sports comentator.	12/23/2015 2:52 PM
39	I don't know.	12/23/2015 2:48 PM
40	Doctor	12/23/2015 2:43 PM
41	I went to be a singer	12/23/2015 2:41 PM
42	Doctor	12/23/2015 2:39 PM
43	A person who invent things that will change the world	12/23/2015 2:37 PM
44	I don't know	12/23/2015 2:34 PM
45	a musician	12/23/2015 2:27 PM
46	n/a	12/23/2015 2:22 PM
47	us army rangers then president of the usa	12/23/2015 2:20 PM
48	Comic book artist, Author, Astronomer	12/23/2015 1:54 PM

FY'15 Future City Student Post Survey 2

Q1 **Name:**

Answered: 29   Skipped: 0

#	Responses	Date
1	Nathalie	1/22/2016 2:22 PM
2	Lesson	1/22/2016 2:14 PM
3	Alexandria	1/22/2016 2:09 PM
4	Guch	1/22/2016 11:35 AM
5	Rosalinda	1/22/2016 11:33 AM
6	Niyonna	1/22/2016 11:25 AM
7	Naia	1/22/2016 11:21 AM
8	Dairin	1/22/2016 11:18 AM
9	Tanasia	1/22/2016 10:53 AM
10	n/a/	1/22/2016 10:46 AM
11	Houda Haiti	1/22/2016 10:33 AM
12	Oliver Piantini	1/22/2016 10:20 AM
13	Jayla Garcia	1/22/2016 10:06 AM
14	Chantelle Pena	1/22/2016 10:02 AM
15	n/a	1/21/2016 4:10 PM
16	n/a	1/21/2016 4:01 PM
17	Sebastian Guerra	1/21/2016 3:49 PM
18	Samuel Cruz	1/21/2016 3:45 PM
19	Ellioll Rodriquez	1/4/2016 4:24 PM
20	Melissa Pourdel	1/4/2016 4:11 PM
21	Walter Jacobs	1/4/2016 12:52 PM
22	Nikita Puri	1/4/2016 12:45 PM
23	Dipa Camsal	1/4/2016 11:55 AM
24	Brian Marin Ruiz	1/4/2016 11:50 AM
25	Kentra Greene	1/4/2016 11:37 AM
26	Jeremy Proctor	1/4/2016 10:56 AM
27	William Rotondo	1/4/2016 10:51 AM
28	Ethan Torino	1/4/2016 10:37 AM
29	Mozn Shora	1/4/2016 10:06 AM

Q2 **School:**

Answered: 29   Skipped: 0

#	Responses	Date
1	Girls Inc: Marshall	1/22/2016 2:22 PM

2	Girls Inc: Breed	1/22/2016 2:14 PM
3	Girls Inc: Pickering	1/22/2016 2:09 PM
4	Girls Inc.	1/22/2016 11:35 AM
5	Girls Inc: Marshall	1/22/2016 11:33 AM
6	Girls Inc: Breed Middle school	1/22/2016 11:25 AM
7	Girls Inc: Breed Middle School	1/22/2016 11:21 AM
8	Girls Inc: Marshall Middle School	1/22/2016 11:18 AM
9	Girls Inc.: Thurgood Marshall Middle School	1/22/2016 10:53 AM
10	Chelsea: WSTA	1/22/2016 10:46 AM
11	Chelsea: WSTA	1/22/2016 10:33 AM
12	Lawrence: Lawrence Family Development Charter School	1/22/2016 10:20 AM
13	Lawrence: Lawrence Family Development Charter School	1/22/2016 10:06 AM
14	Lawrence: Lawrence Family Development Charter School	1/22/2016 10:02 AM
15	Lawrence: LFDCS	1/21/2016 4:10 PM
16	Lawrence: LFDCS	1/21/2016 4:01 PM
17	Lawrence Family Development Charter School	1/21/2016 3:49 PM
18	Lawrence Family Development Charter School	1/21/2016 3:45 PM
19	Somerville: Albert F. Argenziano	1/4/2016 4:24 PM
20	Somerville: AFAS	1/4/2016 4:11 PM
21	Somerville: Argenziano	1/4/2016 12:52 PM
22	Somerville: Argenziano	1/4/2016 12:45 PM
23	Somerville: AFAS	1/4/2016 11:55 AM
24	Somerville: Argenziano School	1/4/2016 11:50 AM
25	Somerville: Argenziano	1/4/2016 11:37 AM
26	Somerville: Argenziano	1/4/2016 10:56 AM
27	Somerville: Argenziano	1/4/2016 10:51 AM
28	Somerville: Argenziano	1/4/2016 10:37 AM
29	Somerville: Argenziano	1/4/2016 10:06 AM

Q3 Below are sentences about you. Please circle one and tell us how much you agree or disagree:

Answered: 29   Skipped: 0
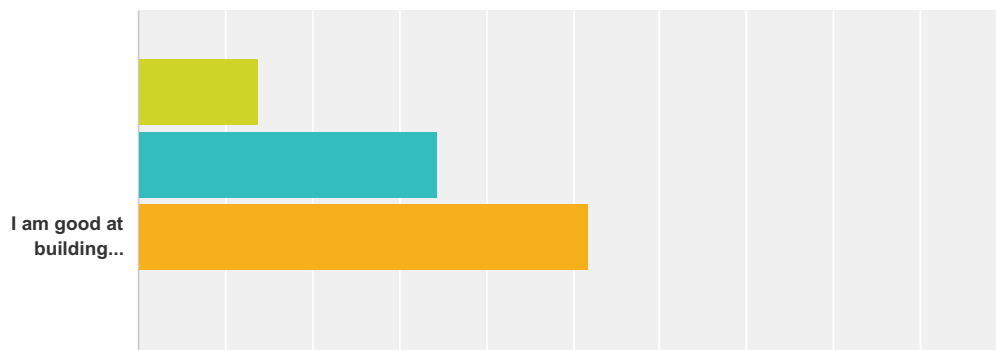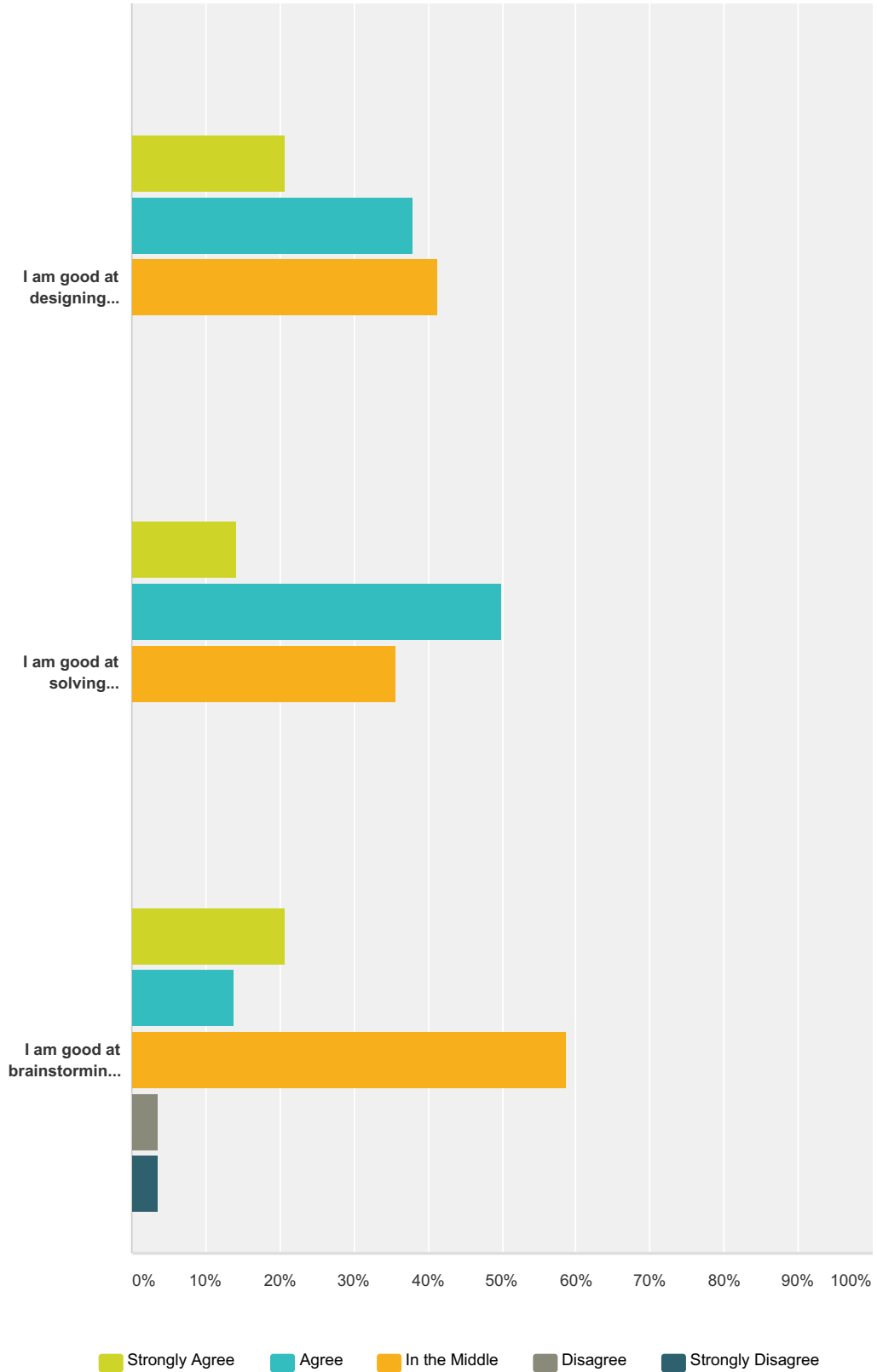
I am good at building...

FY'15 Future City Student Post Survey 2

	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
I am good at building things:	**13.79%** 4	**34.48%** 10	**51.72%** 15	**0.00%** 0	**0.00%** 0	29
I am good at designing things:	**20.69%** 6	**37.93%** 11	**41.38%** 12	**0.00%** 0	**0.00%** 0	29

I am good at solving problems:	**14.29%** 4	**50.00%** 14	**35.71%** 10	**0.00%** 0	**0.00%** 0	28
I am good at brainstorming (thinking of ideas):	**20.69%** 6	**13.79%** 4	**58.62%** 17	**3.45%** 1	**3.45%** 1	29

Q4 Please tell us how much you agree or disagree with each sentence below:

Answered: 29   Skipped: 0

Legend: Strongly Agree, Agree, In the Middle, Disagree, Strongly Disagree

	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
When working on a project it's better to work with a team of people than by myself.	**44.83%** 13	**34.48%** 10	**17.24%** 5	**0.00%** 0	**3.45%** 1	29
When working on a project it's better to work with people who are like me than to work with people who are like me than to work with people who are different (different backgrounds, gender, age, race, disability, where they live).	**14.29%** 4	**10.71%** 3	**17.86%** 5	**32.14%** 9	**25.00%** 7	28

Q5 Carlos is a civil engineer for a company hired by the city to design a better system

4 / 23

for growing enough food (vegetables and protein) within its city limits to feed all their citizens. His challenge is to develop a productive and sustainable urban farming system to provide enough food for everyone within the city. Please describe the steps in the design process that Carlos would follow to meet this challenge?

Answered: 22   Skipped: 7

#	Responses	Date
1	1. make a farm 2. make a company 3. make a market 4. ship food to market	1/22/2016 2:22 PM
2	1) Brain storm 2) get parts 3) research 4) model 5) revice 6) make final product	1/22/2016 2:09 PM
3	The wormhole	1/22/2016 11:25 AM
4	He would have to create proteins and good food products that he knows that everyone in the city will agree on and like to eat and he also has to make sure that the food product won't harm anyone or that it will be dangerous for the city.	1/22/2016 11:18 AM
5	Problem, question, design, build, observ, and re-do.	1/22/2016 10:53 AM
6	Carlos needs to first use the design and problem solving he needs to see what you need to do then design and build	1/22/2016 10:33 AM
7	1. Create a solution 2. Do research 3. Design a model 4. create a model 5. Improve the model[	1/22/2016 10:20 AM
8	Ask- plan- imagine- create - improve	1/22/2016 10:06 AM
9	Ask a question Plan something Imagine possible ideas create a model improve on your design	1/22/2016 10:02 AM
10	Ask - how is he going to do this Plan - what it will look like and how he will build it Imagine - What if would look like Design - What would it look like, make it Improve - Fix the flaws of his design	1/21/2016 4:10 PM
11	Plant on top of the building. Build gardens in rows on top of the buildings. Use a watering timed water system to make life easier. Buy time and by seed, then plant.	1/21/2016 4:01 PM
12	Ask Explain Create Plan Think Test Redo make better	1/21/2016 3:49 PM
13	First, Carlos would ask, imagine, like brainstorming. Then he will plan, like doing a diagram. Then create he will create his idea into reality. After designing and testing it will try to improve his idea.	1/21/2016 3:45 PM
14	1. Find out how much people there are. 2. Find out how big the system should be. 3. Start designing the system. 4. Find the best materials to build the system	1/4/2016 4:11 PM
15	Brainstorm test build his idea	1/4/2016 12:52 PM
16	Step 1: Identify the problem Step 2: Brainstorm Step 3: Solution to the problem Step 4: Design a model Step 5: Build a prototype Step 6: Test the prototype Step 7: Rebuild final prototype with modified version of the design	1/4/2016 12:45 PM
17	1. Reserch - solution 2. Brainstrom - ideas 3. Build/find a prototype 4. Test the prototype 5. Slove the problem 6. Modify the prototype	1/4/2016 11:55 AM
18	Carlos would need to first identify the problem. Second, he must analyze the limitations. Third, brainstorm possible solutions. Fourth, create ideas and concepts on the project. Fifth, Carlos needs to examine the possibilities. Sixth, he needs to choose an approach. Seventh, he needs to construct a prototype. Finally, he then needs to test it and repear the process to fix any flaws.	1/4/2016 11:50 AM
19	Find a problem, research, brainstorm, choose best salution, build a prototype, test	1/4/2016 11:37 AM
20	He needs to look at previous urban farming systems. Then he has to brainstorm some ideas to fix problems. Next he has to design his farm. Then he builds his design. Lastly, Carlos will improve on anything he can to make his farm better.	1/4/2016 10:51 AM
21	Step 1: Find the problem Step 2: Research the problem Step 3: Brainstorm ideas Step 4: Choose the best idea Step 5: Design the idea Step 6: Test the idea Step: Redesign and test again	1/4/2016 10:37 AM

| 22 | Carlos would have to be very creative first he would have to hire enigenizers and designers. buy seeds. | 1/4/2016 10:06 AM |

Q6 Name one thing an engineer might have designed that is an important part of your life.

Answered: 24   Skipped: 5

#	Responses	Date
1	tv	1/22/2016 2:22 PM
2	a phone	1/22/2016 2:09 PM
3	houses	1/22/2016 11:21 AM
4	My house, the school	1/22/2016 11:18 AM
5	Bridges	1/22/2016 10:53 AM
6	house	1/22/2016 10:33 AM
7	An engineer might have designed my glasses	1/22/2016 10:20 AM
8	cell phone	1/22/2016 10:06 AM
9	phone	1/22/2016 10:02 AM
10	Cars	1/21/2016 4:10 PM
11	a watch	1/21/2016 4:01 PM
12	One thing an engineer designed that is important to your life is the cell phone	1/21/2016 3:49 PM
13	One thing an engineer might have designed that is an important part of my life is television.	1/21/2016 3:45 PM
14	An engineer might have desined the train i ride to go every where.	1/4/2016 4:24 PM
15	My house	1/4/2016 4:11 PM
16	A computer/ a car/ a bike	1/4/2016 12:52 PM
17	Cell phonesI can reach my parents easily I won't be lost.	1/4/2016 12:45 PM
18	cars computre	1/4/2016 11:55 AM
19	One thing an engineer might have that is an important part of my life is the light bulb.	1/4/2016 11:50 AM
20	my phone	1/4/2016 11:37 AM
21	A clock for telling time	1/4/2016 10:56 AM
22	A phone	1/4/2016 10:51 AM
23	Insolation	1/4/2016 10:37 AM
24	Shoes	1/4/2016 10:06 AM

Q7 Please tell us how much you agree or disagree with each sentence below:

Answered: 29   Skipped: 0

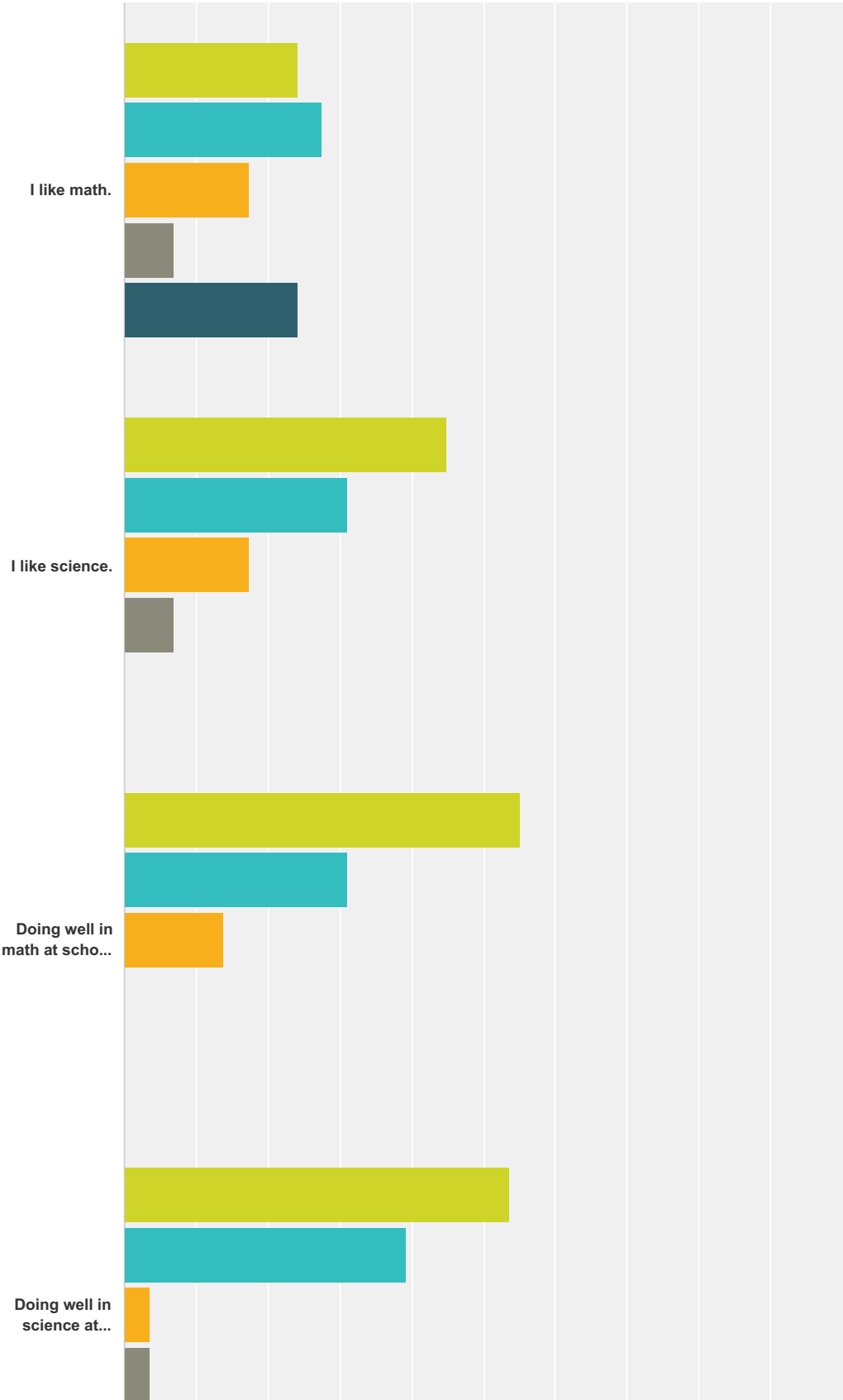# FY'15 Future City Student Post Survey 2
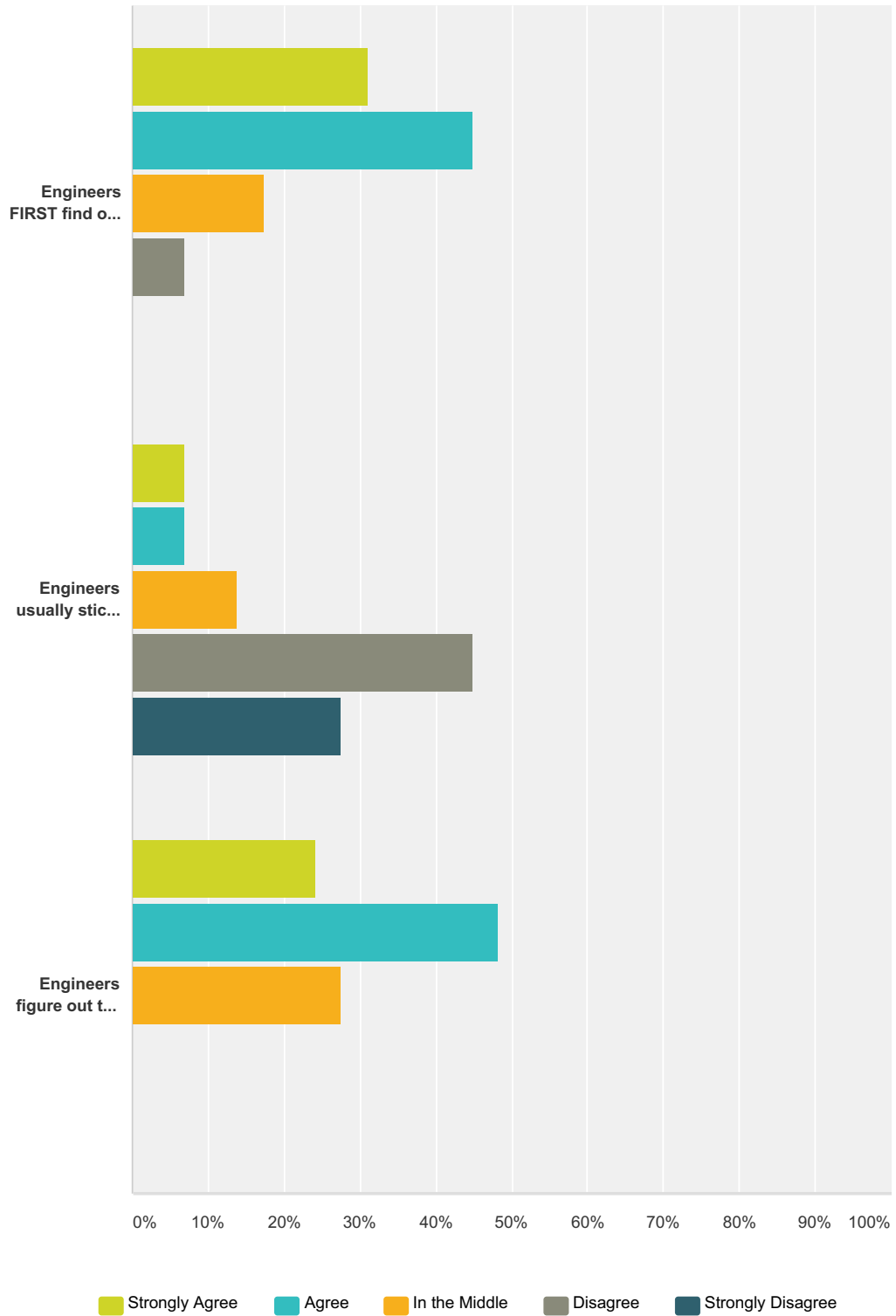
	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
Engineers FIRST find out what people need and THEN they design and make things to fill those needs.	**31.03%** 9	**44.83%** 13	**17.24%** 5	**6.90%** 2	**0.00%** 0	29
Engineers usually stick with one idea, rather than trying out lots of possible ideas.	**6.90%** 2	**6.90%** 2	**13.79%** 4	**44.83%** 13	**27.59%** 8	29
Engineers figure out the best materials to use and how to turn them into things we use every day.	**24.14%** 7	**48.28%** 14	**27.59%** 8	**0.00%** 0	**0.00%** 0	29

Q8 Please tell us how much you agree or disagree with each sentence below:
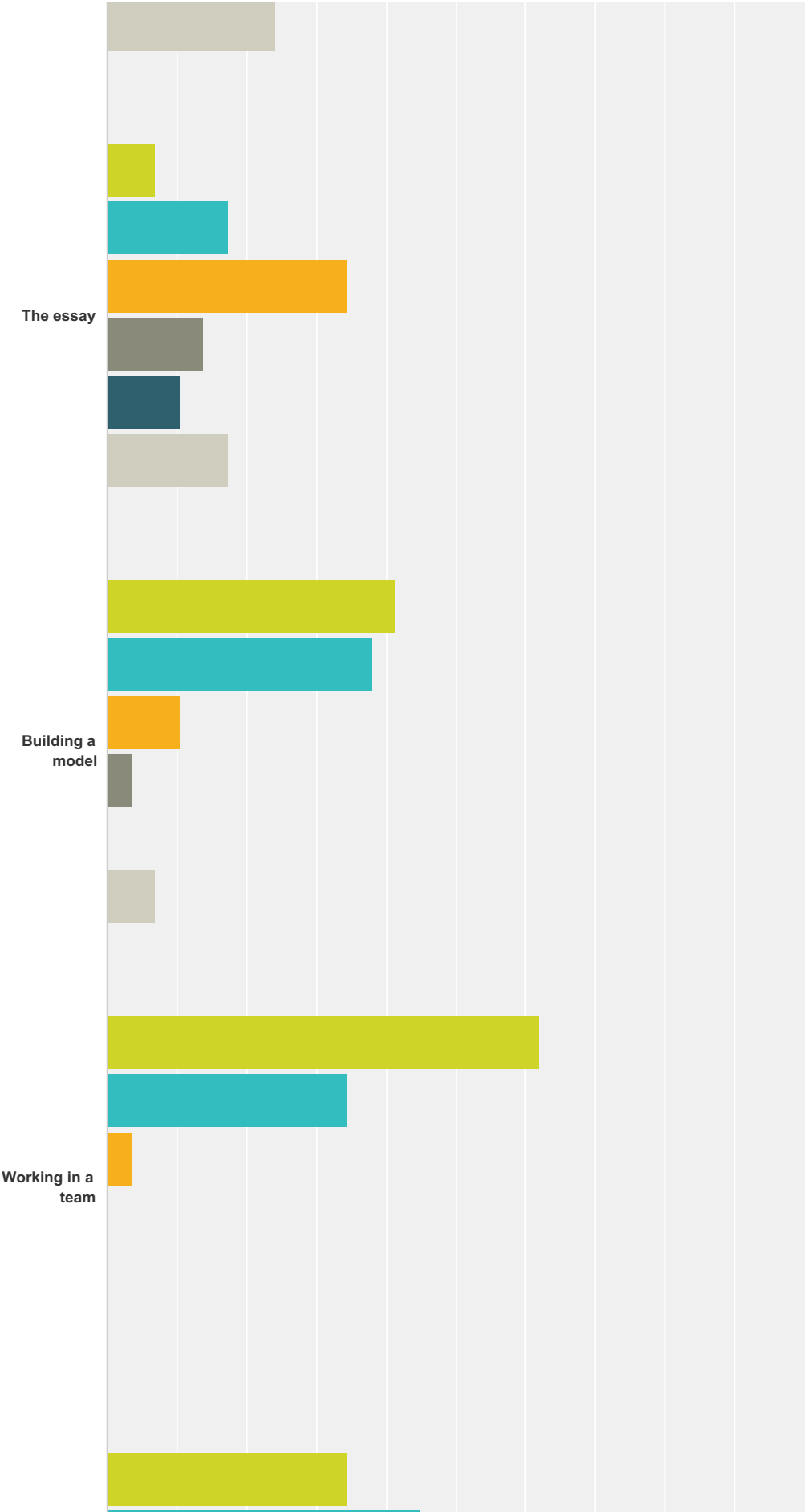
Answered: 29   Skipped: 0
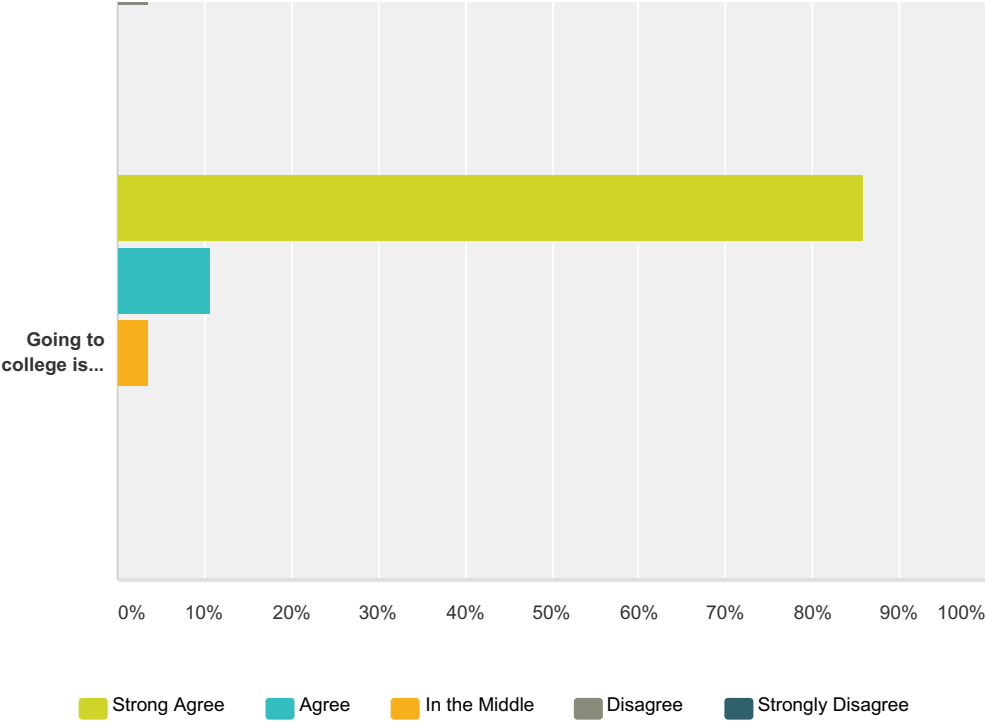
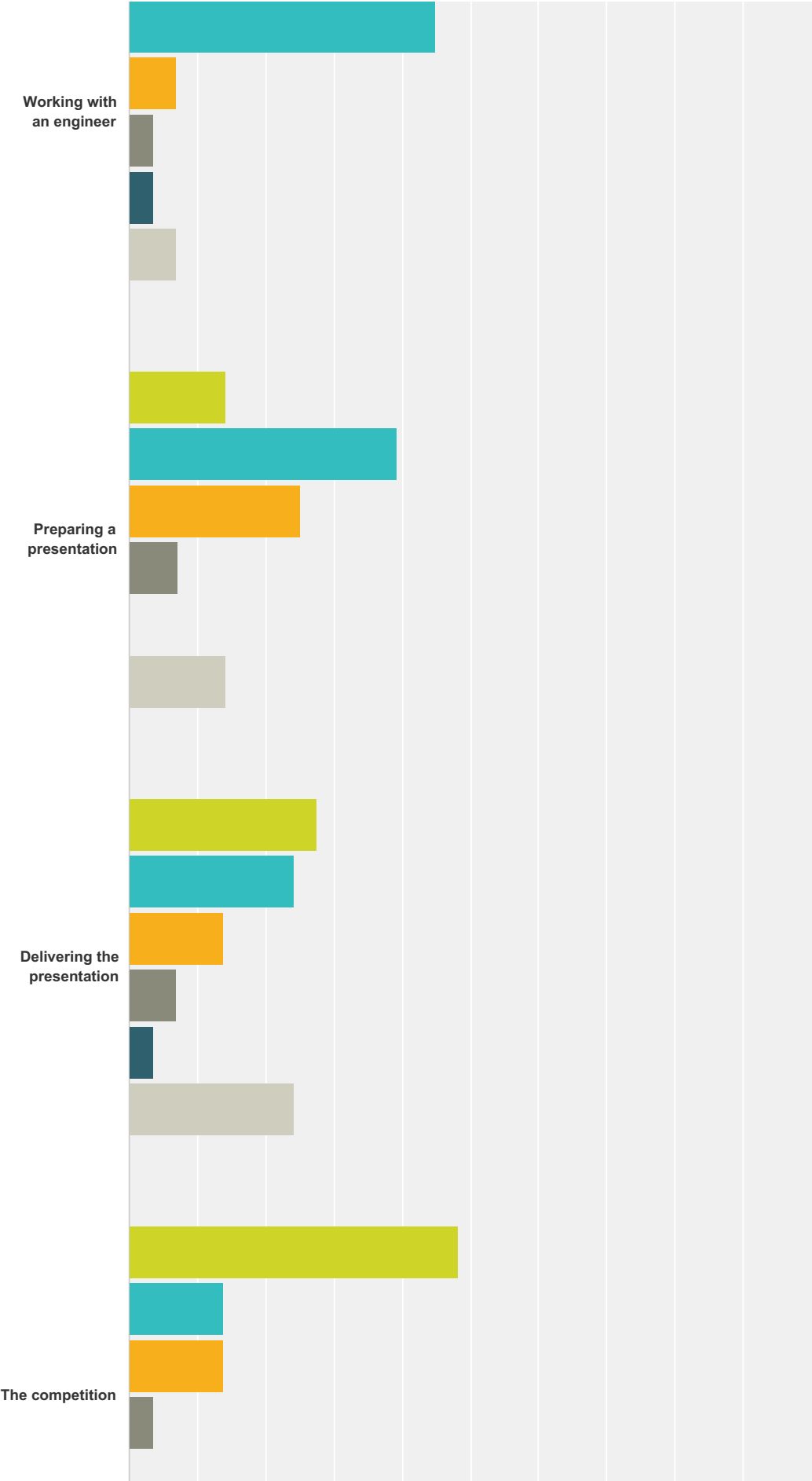|	Strong Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
I like math.	**24.14%** 7	**27.59%** 8	**17.24%** 5	**6.90%** 2	**24.14%** 7	29
I like science.	**44.83%** 13	**31.03%** 9	**17.24%** 5	**6.90%** 2	**0.00%** 0	29
Doing well in math at school is important.	**55.17%** 16	**31.03%** 9	**13.79%** 4	**0.00%** 0	**0.00%** 0	29
Doing well in science at school is important.	**53.57%** 15	**39.29%** 11	**3.57%** 1	**3.57%** 1	**0.00%** 0	28
Going to college is important to me.	**85.71%** 24	**10.71%** 3	**3.57%** 1	**0.00%** 0	**0.00%** 0	28

Q9 Please tell us about your experience with Future City by telling us what you thought of each part of Future City:
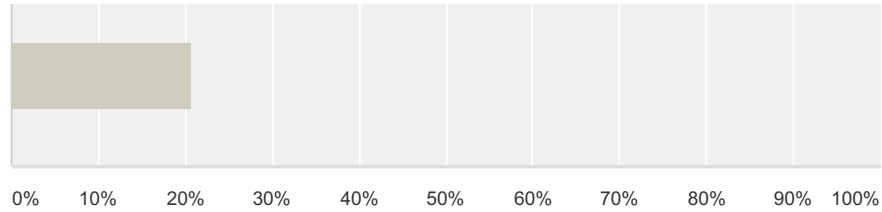
Answered: 29   Skipped: 0

FY'15 Future City Student Post Survey 2

The essay

Building a model

Working in a team

FY'15 Future City Student Post Survey 2

Working with an engineer

Preparing a presentation

Delivering the presentation

The competition
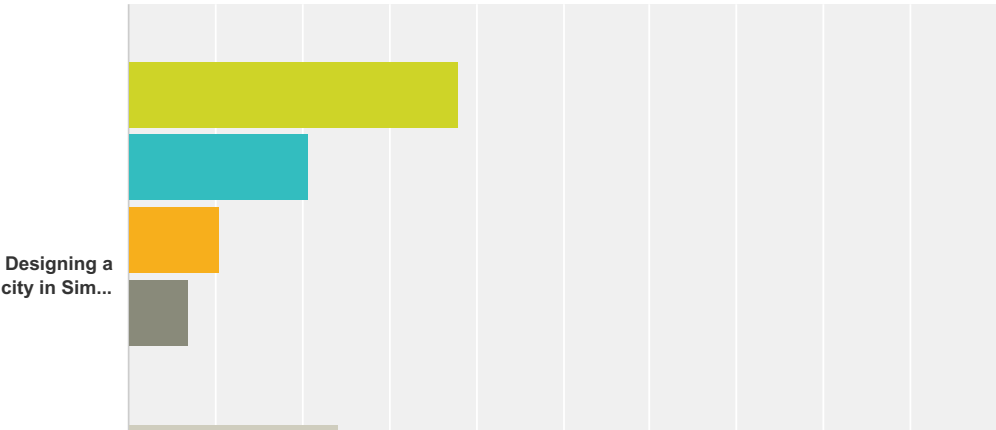
FY'15 Future City Student Post Survey 2

	I Loved It	I Liked It	In the Middle	I Didn't Like it Much	I Didn't Like it at All	I Didn't Do This	Total
Designing a city in Sim City	37.93% 11	20.69% 6	10.34% 3	6.90% 2	0.00% 0	24.14% 7	29
The essay	6.90% 2	17.24% 5	34.48% 10	13.79% 4	10.34% 3	17.24% 5	29
Building a model	41.38% 12	37.93% 11	10.34% 3	3.45% 1	0.00% 0	6.90% 2	29
Working in a team	62.07% 18	34.48% 10	3.45% 1	0.00% 0	0.00% 0	0.00% 0	29
Working with an engineer	34.48% 10	44.83% 13	6.90% 2	3.45% 1	3.45% 1	6.90% 2	29
Preparing a presentation	14.29% 4	39.29% 11	25.00% 7	7.14% 2	0.00% 0	14.29% 4	28
Delivering the presentation	27.59% 8	24.14% 7	13.79% 4	6.90% 2	3.45% 1	24.14% 7	29
The competition	48.28% 14	13.79% 4	13.79% 4	3.45% 1	0.00% 0	20.69% 6	29

Q10 What new knowledge did you gain, or what skills did you improve, by participating in Future City?
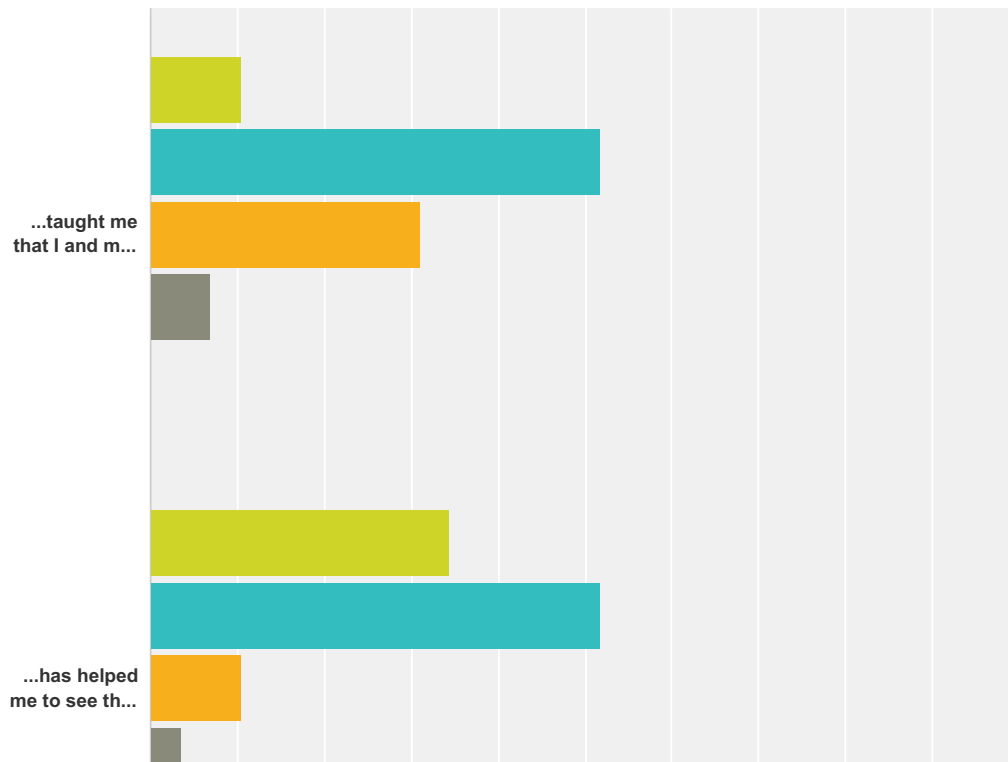
Answered: 29   Skipped: 0

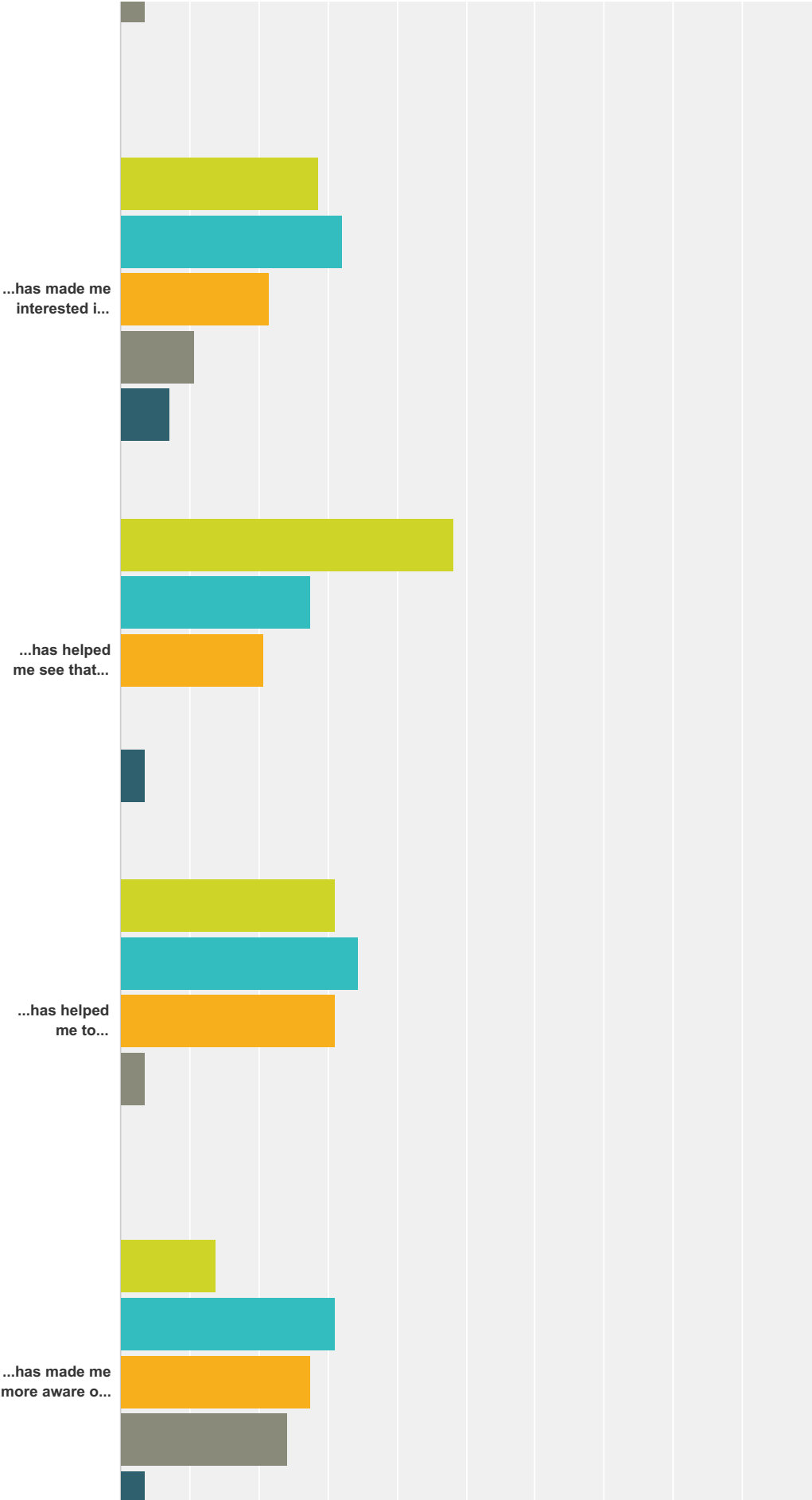| #	Responses	Date
1	creativity	1/22/2016 2:22 PM
2	Umm I don't know	1/22/2016 2:14 PM
3	how to design	1/22/2016 2:09 PM
4	n/a	1/22/2016 11:35 AM
5	n/a	1/22/2016 11:33 AM
6	n/a	1/22/2016 11:25 AM
7	I didn't go	1/22/2016 11:21 AM
8	I learned how to build a model	1/22/2016 11:18 AM
9	Expirementing, eginering	1/22/2016 10:53 AM
10	It was really fun attending the competition and presenting. Well I know now how like the steps you have to take to build a city.	1/22/2016 10:46 AM

11	building and desing	1/22/2016 10:33 AM
12	I found out that building a city is not as easy as it looks	1/22/2016 10:20 AM
13	I got building skills and learned to make things with (basically) garbage.	1/22/2016 10:06 AM
14	Well I know I a few science based things.	1/22/2016 10:02 AM
15	n/a	1/21/2016 4:10 PM
16	Gained the skill of learning that building things are not as easy as they seem.	1/21/2016 4:01 PM
17	I learned that science isn't all fun but it pays off later.	1/21/2016 3:49 PM
18	New knowledge that I gained was how cities work today and how they can be improved.	1/21/2016 3:45 PM
19	I learned alot about how an engineer works	1/4/2016 4:24 PM
20	I improved in sharing my ideas and presenting.	1/4/2016 4:11 PM
21	Team work skills	1/4/2016 12:52 PM
22	I improved my skill of talking and presenting in front of people by participating in Future City.	1/4/2016 12:45 PM
23	new way farming can be used in Urban areas	1/4/2016 11:55 AM
24	By participating in Future City, I think I have improved y ingenuity and my understanding of concepts.	1/4/2016 11:50 AM
25	Learned about engineering	1/4/2016 11:37 AM
26	Learning how to use tools for in my future	1/4/2016 10:56 AM
27	I learned that it is easier and more efficient to work in a team rather than alone.	1/4/2016 10:51 AM
28	I learned how different people think.	1/4/2016 10:37 AM
29	I improved my engineering skills	1/4/2016 10:06 AM

Q11 Please tell us how much you agree with each of the following statements: Future City…
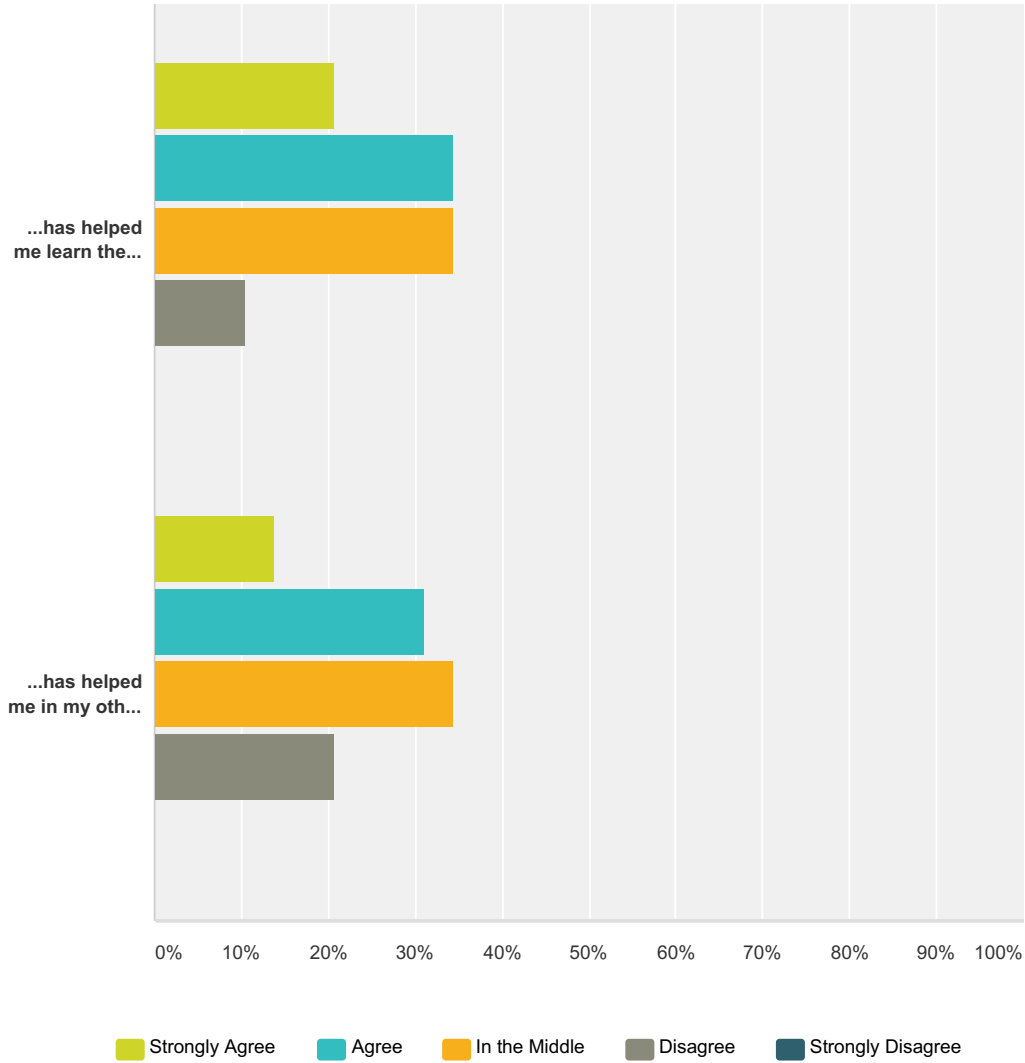
Answered: 29   Skipped: 0
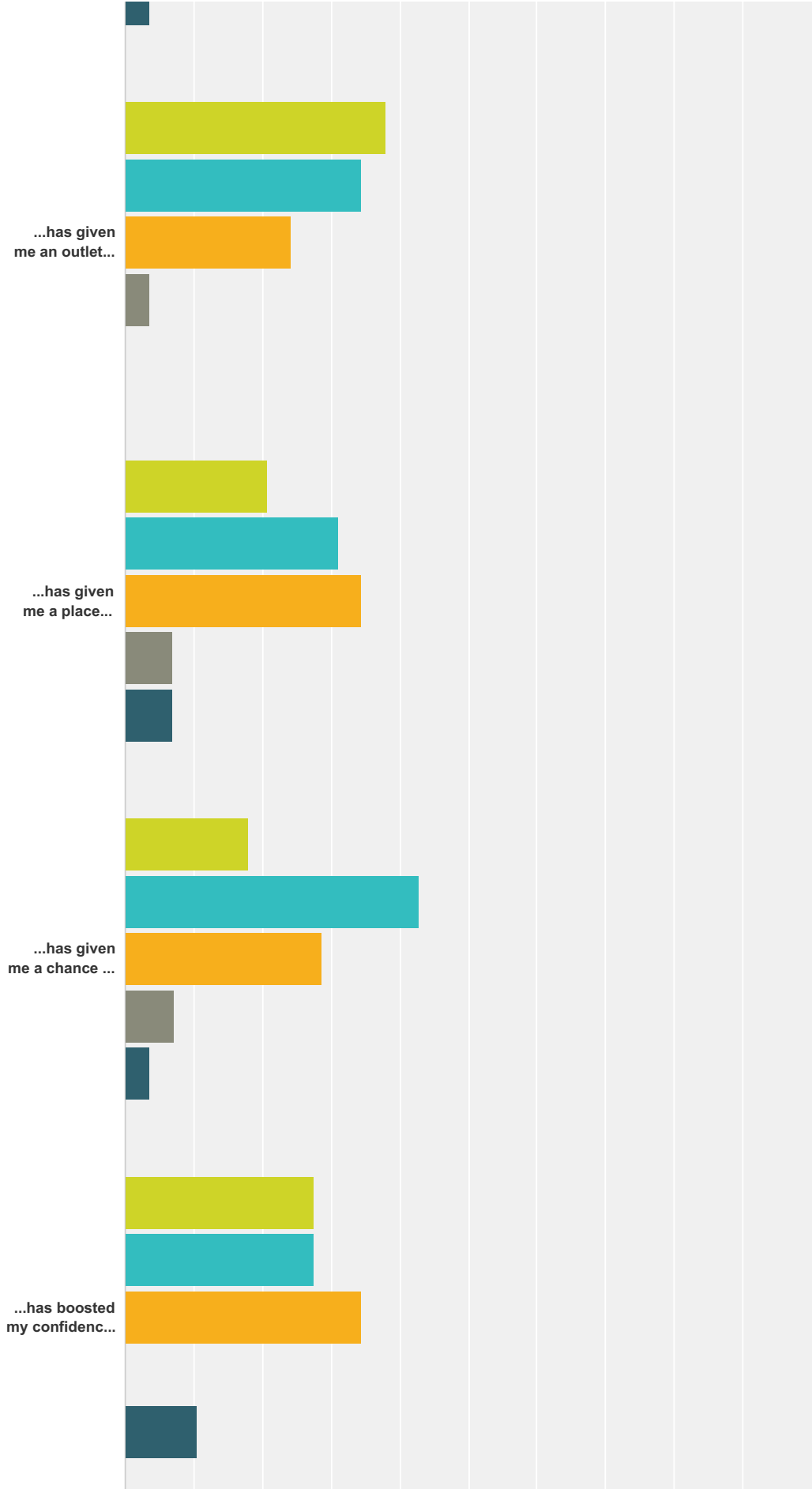
FY'15 Future City Student Post Survey 2

...has made me
interested i...

...has helped
me see that...

...has helped
me to...

...has made me
more aware o...

FY'15 Future City Student Post Survey 2

...has given me an outlet...

...has given me a place...

...has given me a chance ...

...has boosted my confidenc...

FY'15 Future City Student Post Survey 2

	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
...taught me that I and my classmates can create something on our own without direction from a teacher.	**10.34%** 3	**51.72%** 15	**31.03%** 9	**6.90%** 2	**0.00%** 0	29
...has helped me to see the value in working with a team to solve problems.	**34.48%** 10	**51.72%** 15	**10.34%** 3	**3.45%** 1	**0.00%** 0	29
...has made me interested in doing other engineering clubs or activities.	**28.57%** 8	**32.14%** 9	**21.43%** 6	**10.71%** 3	**7.14%** 2	28
...has helped me see that math and science are important to my future.	**48.28%** 14	**27.59%** 8	**20.69%** 6	**0.00%** 0	**3.45%** 1	29
...has helped me to appreciate all the engineering that goes into a city.	**31.03%** 9	**34.48%** 10	**31.03%** 9	**3.45%** 1	**0.00%** 0	29
...has made me more aware of civics issues like politics and taxes.	**13.79%** 4	**31.03%** 9	**27.59%** 8	**24.14%** 7	**3.45%** 1	29
...has given me an outlet for my creativity and imagination.	**37.93%** 11	**34.48%** 10	**24.14%** 7	**3.45%** 1	**0.00%** 0	29
...has given me a place where I fit in.	**20.69%** 6	**31.03%** 9	**34.48%** 10	**6.90%** 2	**6.90%** 2	29
...has given me a chance to use my creative writing skills.	**17.86%** 5	**42.86%** 12	**28.57%** 8	**7.14%** 2	**3.57%** 1	28

...has boosted my confidence in myself.	**27.59%** 8	**27.59%** 8	**34.48%** 10	**0.00%** 0	**10.34%** 3	29
...has helped me learn the value of ethics.	**20.69%** 6	**34.48%** 10	**34.48%** 10	**10.34%** 3	**0.00%** 0	29
...has helped me in my other classes.	**13.79%** 4	**31.03%** 9	**34.48%** 10	**20.69%** 6	**0.00%** 0	29

#	Please list classes:	Date
1	Math, science	1/22/2016 11:18 AM
2	science	1/22/2016 10:53 AM
3	science, math	1/22/2016 10:20 AM
4	none	1/22/2016 10:06 AM
5	science	1/22/2016 10:02 AM
6	science, math	1/21/2016 4:10 PM
7	Science, Art	1/21/2016 3:49 PM
8	science	1/21/2016 3:45 PM
9	social studies ELA since	1/4/2016 4:24 PM
10	science	1/4/2016 4:11 PM
11	science	1/4/2016 12:52 PM
12	science	1/4/2016 11:55 AM
13	Science, Math	1/4/2016 11:50 AM
14	Social Studies, ELA	1/4/2016 10:51 AM
15	Math, S.S., ELA	1/4/2016 10:37 AM

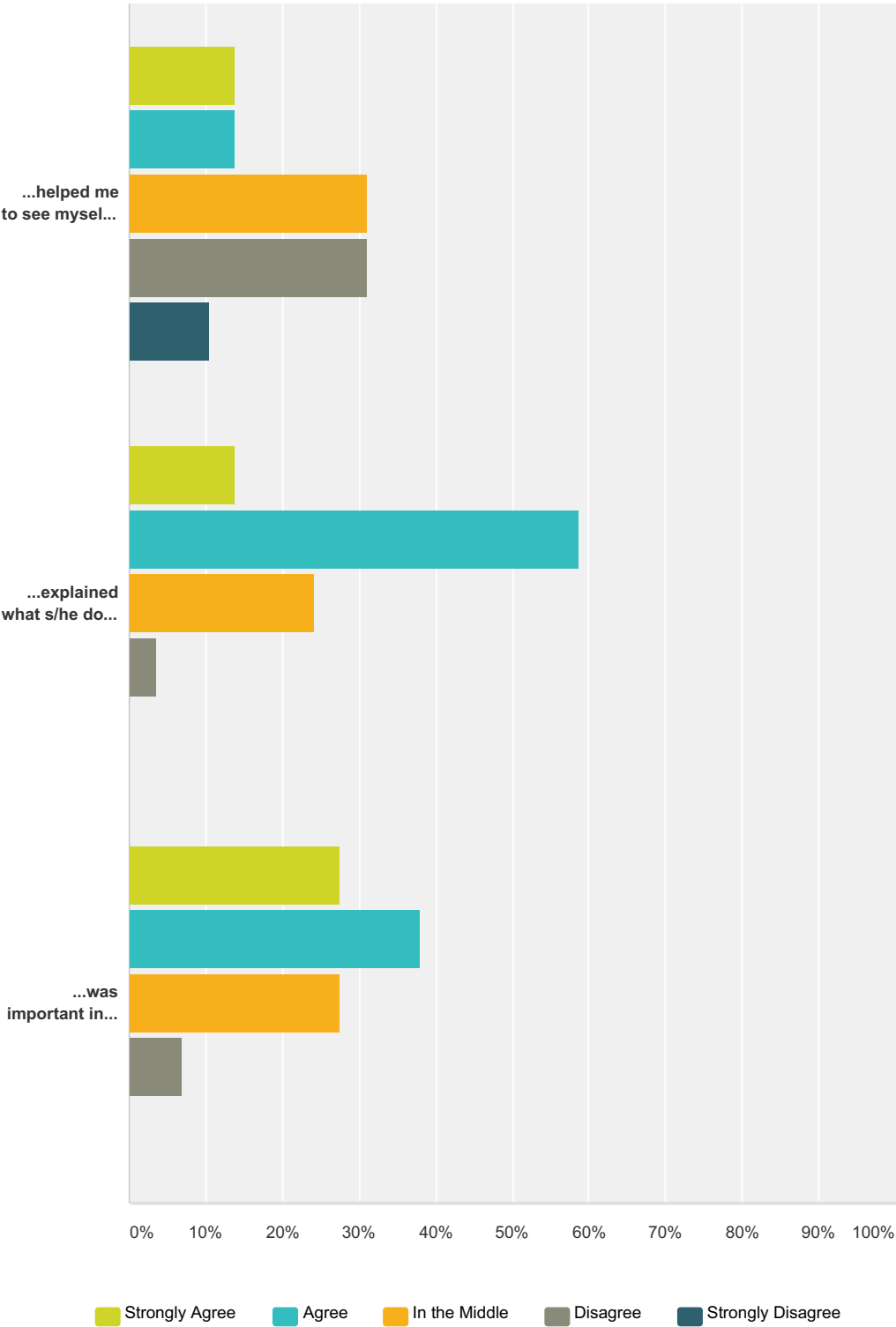## Q12 Did your group have an engineer mentor?

Answered: 25   Skipped: 4
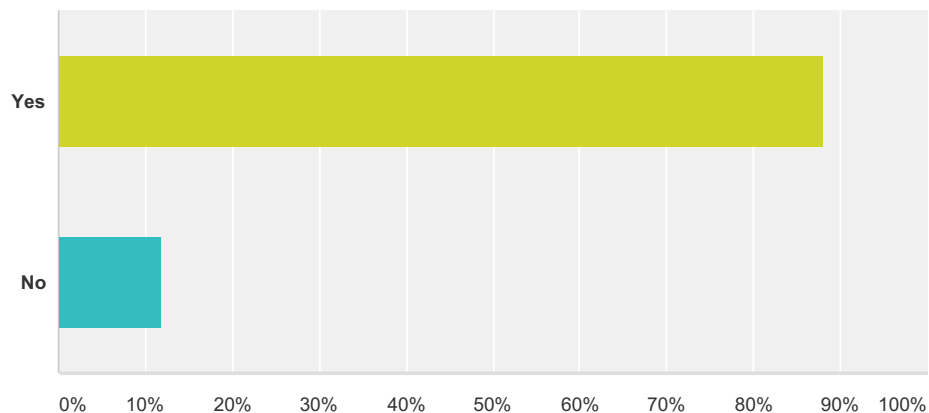
Answer Choices	Responses	
Yes	**88.00%**	22
No	**12.00%**	3

Total	25

Q13 Please tell us how much you agree or disagree with each of the following sentences: My Future City mentor (the engineer)…

Answered: 29 Skipped: 0

Legend: Strongly Agree | Agree | In the Middle | Disagree | Strongly Disagree

	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
...helped me to see myself as an engineer someday.	**13.79%** 4	**13.79%** 4	**31.03%** 9	**31.03%** 9	**10.34%** 3	29
...explained what s/he does in his job.	**13.79%** 4	**58.62%** 17	**24.14%** 7	**3.45%** 1	**0.00%** 0	29
...was important in guiding us on the project.	**27.59%** 8	**37.93%** 11	**27.59%** 8	**6.90%** 2	**0.00%** 0	29

Q14 Which of the following is true of your Future City experience?

Answered: 29   Skipped: 0
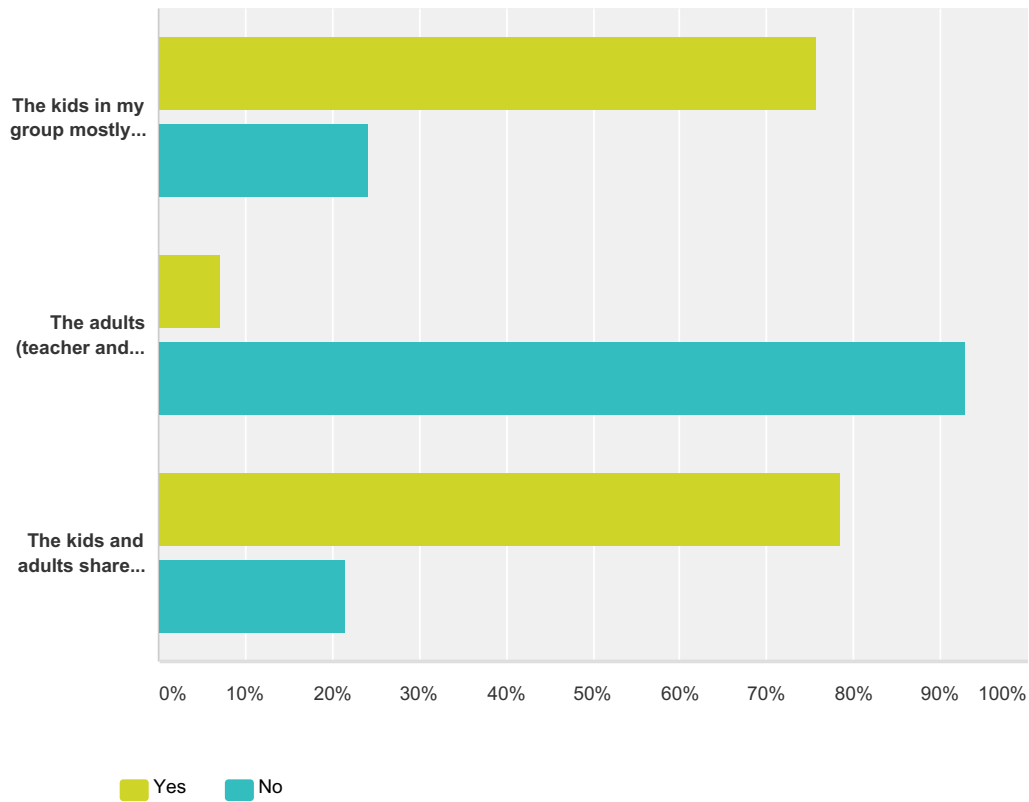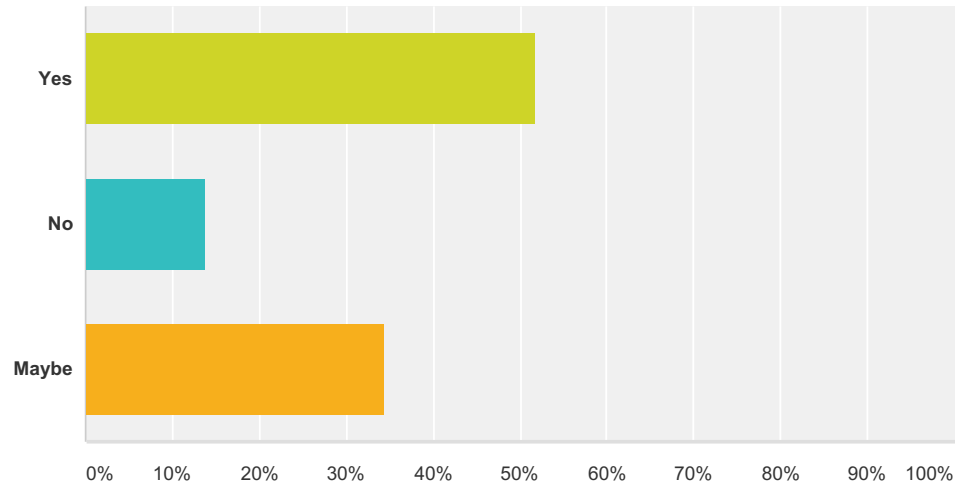

	Yes	No	Total
The kids in my group mostly made the design decisions.	**75.86%** 22	**24.14%** 7	29
The adults (teacher and/or mentor) mostly made the design decisions.	**7.14%** 2	**92.86%** 26	28
The kids and adults shared the responsibility equally for the design decisions.	**78.57%** 22	**21.43%** 6	28

Q15 Would you participate in Future City again, if you could?

Answered: 29   Skipped: 0

Answer Choices	Responses	
Yes	**51.72%**	15
No	**13.79%**	4
Maybe	**34.48%**	10
Total		**29**

Q16 What did you like MOST about Future City? What surprised you most about your experiences in Future City?

Answered: 29   Skipped: 0

#	Responses	Date
1	I liked the part when we were doing the modil	1/22/2016 2:22 PM
2	I like when we built our model but I like painting	1/22/2016 2:14 PM
3	The model	1/22/2016 2:09 PM
4	Is fun it is going for you	1/22/2016 11:35 AM
5	I like working in group.	1/22/2016 11:33 AM
6	When we make the modle	1/22/2016 11:25 AM
7	n/a	1/22/2016 11:21 AM
8	I loved designing and what suprised me is all the different things you can learn about math, science and different cemecals.	1/22/2016 11:18 AM
9	Making things and chilling out with people. Scale	1/22/2016 10:53 AM
10	It's really fun and you could learn new things. I really liked building. "Because of Future City, I know more about what you have to think about when building a city."	1/22/2016 10:46 AM
11	I loved going to the compition	1/22/2016 10:33 AM
12	I liked how the engineer came and told us about their work. What suprised me most was how much fun building the model was.	1/22/2016 10:20 AM
13	I liked the building part. Nothing suprised me	1/22/2016 10:06 AM
14	Writing the essay was pretty good	1/22/2016 10:02 AM

20 / 23

15	I liked that we can pick our groups. I liked drawing out the model.	1/21/2016 4:10 PM
16	I thought that it would be more entertaining.	1/21/2016 4:01 PM
17	What suprised me most is we could creat our own city of the futur.	1/21/2016 3:49 PM
18	What I liked the most about Future City was that it was that we decided our ideas. What suprised me the most was we started out from scratch.	1/21/2016 3:45 PM
19	The thing I love most about future city is I was able to get closer to my friends and other kids.	1/4/2016 4:24 PM
20	I liked the competition	1/4/2016 4:11 PM
21	SIM city. Winning best education system award.	1/4/2016 12:52 PM
22	I really liked answering questions for people who walked by us and answering questions for the special judges round. I thought the competition was going to intense and nerveracking but what surprised me was that the vibe was actually fun and it was fun presenting in front of the judges.	1/4/2016 12:45 PM
23	I like writing the essay and building the model.	1/4/2016 11:55 AM
24	What I liked most about Future City was the ability to create a city of our own with all the features we desired. What surprised me the most in my experiences in Future City was the amount of competitors.	1/4/2016 11:50 AM
25	The competition	1/4/2016 11:37 AM
26	I liked building the model and winning the best education	1/4/2016 10:56 AM
27	Building the model was my favorite. All the steps to prepare the model was what suprised me.	1/4/2016 10:51 AM
28	I liked most was seeing everyone's project and see their perspectives and ideas. I thought Future City was great. Every part was like fitting a piece in a puzzle.	1/4/2016 10:37 AM
29	I liked the compation bulding and reeserch	1/4/2016 10:06 AM

Q17 What did you like LEAST about Future City? How can we improve the Future City program?

Answered: 22   Skipped: 7

#	Responses	Date
1	reamebering the script for the presentation	1/22/2016 2:22 PM
2	nothing	1/22/2016 2:14 PM
3	All the time that was put in to it.	1/22/2016 2:09 PM
4	i dont no	1/22/2016 11:35 AM
5	Doing the research	1/22/2016 11:25 AM
6	sim city, you can try and put a nother game like, mincraft.	1/22/2016 11:18 AM
7	The scale rule. Having more snacks at the competition.	1/22/2016 10:53 AM
8	Essay	1/22/2016 10:33 AM
9	I didn't like the fact that we didn't get to use sim city. Make an activity like sim city that we can all do.	1/22/2016 10:20 AM
10	The essay part. By making the kids write less essays	1/22/2016 10:06 AM
11	Doing the math	1/22/2016 10:02 AM
12	I least like that it was that it was not so intriguing. You can show us videos.	1/21/2016 4:10 PM
13	It was not entertaining, making it more entertaining	1/21/2016 4:01 PM
14	What I liked the least was we didn't get to choose the topic like transportation, water, etc.	1/21/2016 3:49 PM
15	What I liked least was one of my friends was left out of the group because it was only 3 people per group. Try on improve the program by allowing 4 people a group if needed.	1/21/2016 3:45 PM

21 / 23

16	Whe had a big time curunch and we ended up being short on time	1/4/2016 4:24 PM
17	It was my first time and I liked everything about the competition.	1/4/2016 12:45 PM
18	What I liked least about Future City was the schedule. I would prefer it to be held on Wednesday after school every week.	1/4/2016 11:50 AM
19	Try to make it shorter it was to long	1/4/2016 11:37 AM
20	I loved everything	1/4/2016 10:56 AM
21	The essay is what I liked least. improve by having longer due dates.	1/4/2016 10:51 AM
22	I lease liked about Future City is nothing.	1/4/2016 10:37 AM

Q18 What do you want to be when you grow up?

Answered: 29   Skipped: 0

#	Responses	Date
1	a famous chef	1/22/2016 2:22 PM
2	nurse	1/22/2016 2:14 PM
3	nail artist	1/22/2016 2:09 PM
4	designer	1/22/2016 11:35 AM
5	a lawyer	1/22/2016 11:33 AM
6	a chef	1/22/2016 11:25 AM
7	surgerion/heart	1/22/2016 11:21 AM
8	A Lawyer	1/22/2016 11:18 AM
9	Nail Artist, Heart or Brain surgeon, medical researcher	1/22/2016 10:53 AM
10	n/a	1/22/2016 10:46 AM
11	Doctor, (teacher actor)	1/22/2016 10:33 AM
12	I want to be a sports journalist	1/22/2016 10:20 AM
13	Actress	1/22/2016 10:06 AM
14	lawyer	1/22/2016 10:02 AM
15	Scientist	1/21/2016 4:10 PM
16	Sport Scientist	1/21/2016 4:01 PM
17	I have not decided yet	1/21/2016 3:49 PM
18	What I want to be is a computer engineer.	1/21/2016 3:45 PM
19	International journalist or biplomat	1/4/2016 4:24 PM
20	Architect	1/4/2016 4:11 PM
21	A Director	1/4/2016 12:52 PM
22	I want to be an astrophysicist or a musician or both.	1/4/2016 12:45 PM
23	computer enginer	1/4/2016 11:55 AM
24	An Aeronautics Engineer	1/4/2016 11:50 AM
25	I don't know	1/4/2016 11:37 AM
26	n/a	1/4/2016 10:56 AM
27	An electrician.	1/4/2016 10:51 AM

| 28 | I want to be a scientist. | 1/4/2016 10:37 AM |
| 29 | civil engineer | 1/4/2016 10:06 AM |

Q19 Would you recommend Future City to friends?

Answered: 29   Skipped: 0
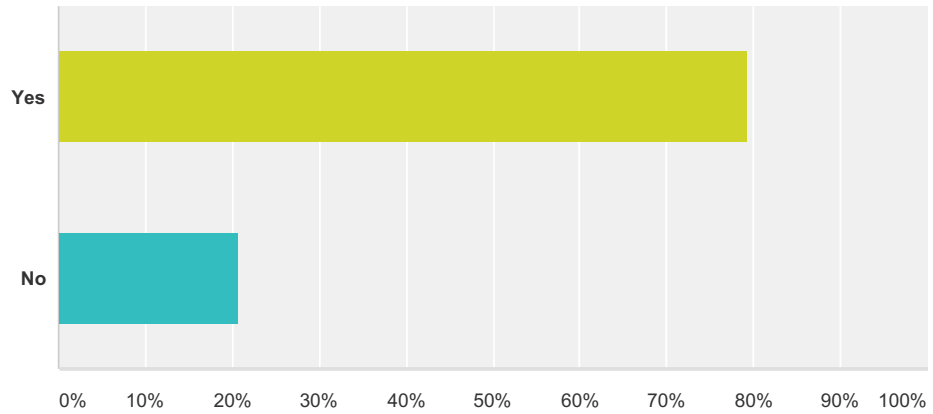
Answer Choices	Responses	
Yes	**79.31%**	23
No	**20.69%**	6
Total		**29**

Future City Teacher Survey FY

Q1 **Name:**

Answered: 5   Skipped: 0

#	Responses	Date
1	Ann Ayala-Macey	4/1/2015 12:19 PM
2	Lyle Harrod	3/25/2015 5:45 PM
3	claire moran	3/24/2015 5:44 PM
4	Michael Coughlin	3/24/2015 3:32 PM
5	Charles Collins	3/24/2015 3:03 PM

Q2 **School:**

Answered: 5   Skipped: 0

#	Responses	Date
1	Girls Inc. Lynn	4/1/2015 12:19 PM
2	LEAP for Education (Salem)	3/25/2015 5:45 PM
3	wsta	3/24/2015 5:44 PM
4	Argenziano	3/24/2015 3:32 PM
5	West Springfield Public Library	3/24/2015 3:03 PM

Q3 **Are you a:**

Answered: 5   Skipped: 0
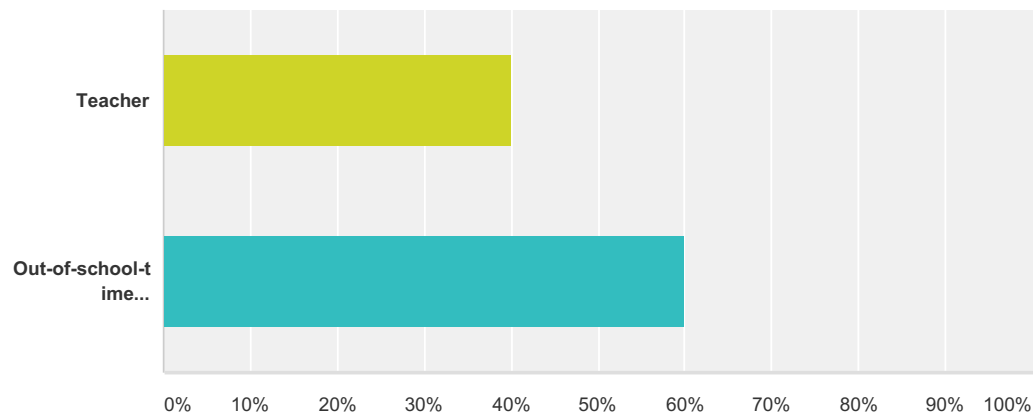
Answer Choices	Responses	
Teacher	**40.00%**	2
Out-of-school-time (e.g.,afterschool) leader	**60.00%**	3
Total Respondents: 5		

Q4 **What subject(s) do you teach? (Choose**

all that apply)

Answered: 5   Skipped: 0
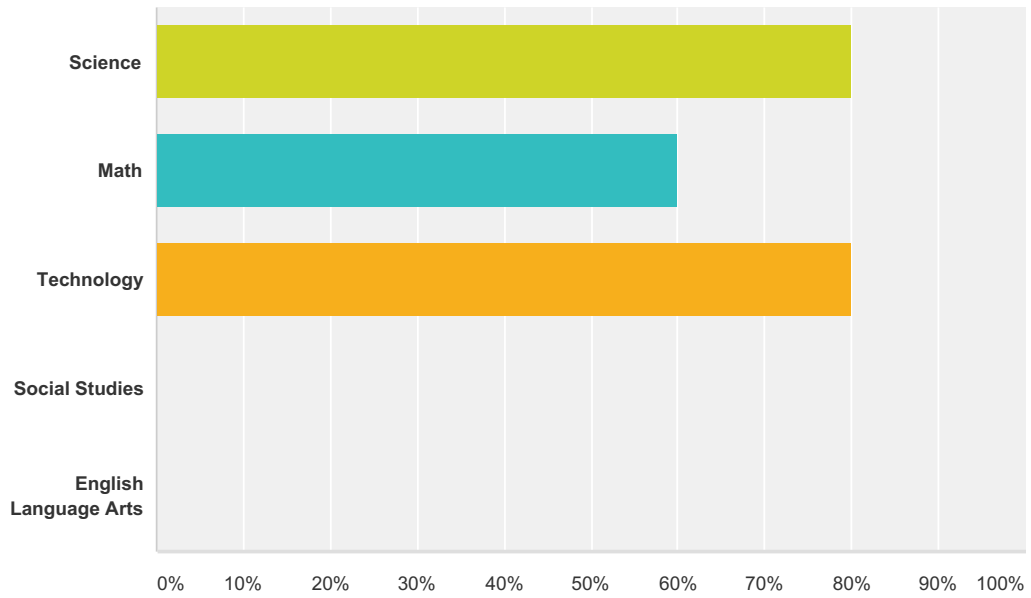
Answer Choices	Responses	
Science	**80.00%**	4
Math	**60.00%**	3
Technology	**80.00%**	4
Social Studies	**0.00%**	0
English Language Arts	**0.00%**	0
Total Respondents: 5		

#	Other (please specify)	Date
1	STEM Coordinator	4/1/2015 12:19 PM

Q5 Counting this year, how many times have you participated in Future City?

Answered: 5   Skipped: 0
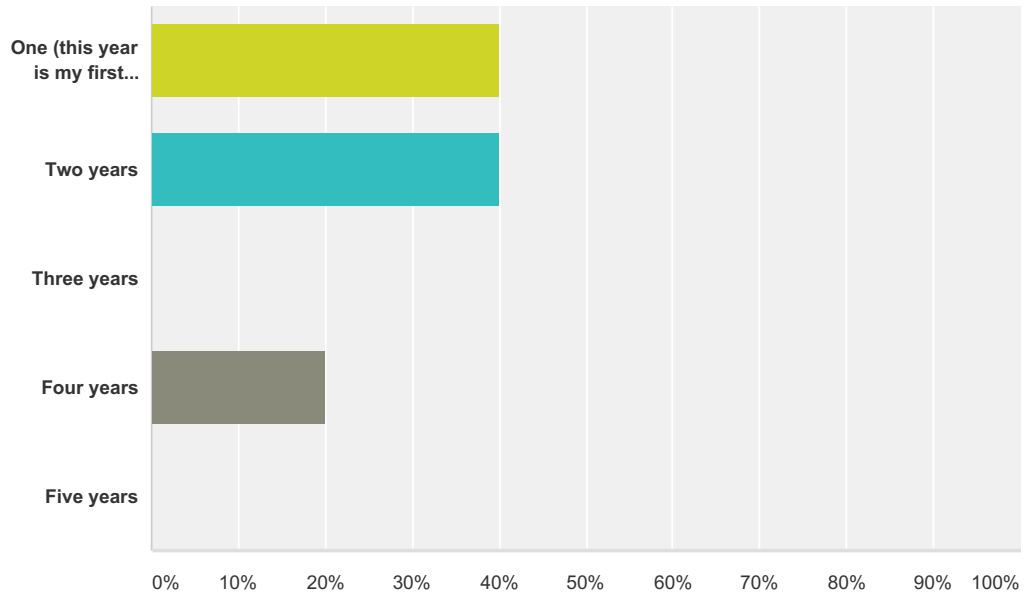
Answer Choices	Responses	
One (this year is my first year)	40.00%	2
Two years	40.00%	2
Three years	0.00%	0
Four years	20.00%	1
Five years	0.00%	0
Total		5

#	Other (please specify)	Date
	There are no responses.	

Q6 How many students in your organization participated in Future City this year?

Answered: 5   Skipped: 0

#	Responses	Date
1	15	4/1/2015 12:19 PM
2	6	3/25/2015 5:45 PM
3	6	3/24/2015 5:44 PM
4	11	3/24/2015 3:32 PM
5	8	3/24/2015 3:03 PM

Q7 How many teams did you have this year?

Answered: 5   Skipped: 0

#	Responses	Date
1	1	4/1/2015 12:19 PM
2	1	3/25/2015 5:45 PM
3	2	3/24/2015 5:44 PM
4	1	3/24/2015 3:32 PM
5	1	3/24/2015 3:03 PM

Q8 How many teams went to the competition this year?

Answered: 5   Skipped: 0

#	Responses	Date
1	1	4/1/2015 12:19 PM
2	1	3/25/2015 5:45 PM
3	2	3/24/2015 5:44 PM
4	1	3/24/2015 3:32 PM
5	1	3/24/2015 3:03 PM

Q9 Did you offer Future City as a course or club or some combination? (Choose all that apply)

Answered: 5   Skipped: 0
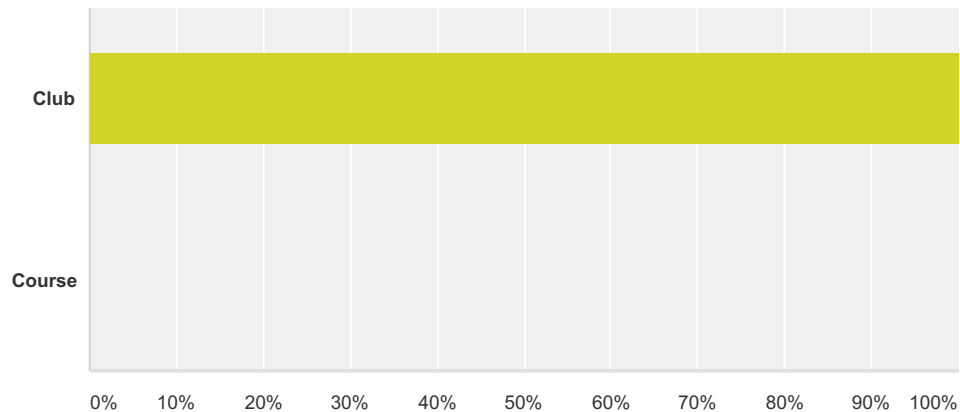
Answer Choices	Responses	
Club	**100.00%**	5
Course	**0.00%**	0
Total Respondents: 5		

#	If Course was selected, what is the Course name:	Date
	There are no responses.	

Q10 Which students participated in Future City this year?

Answered: 5   Skipped: 0
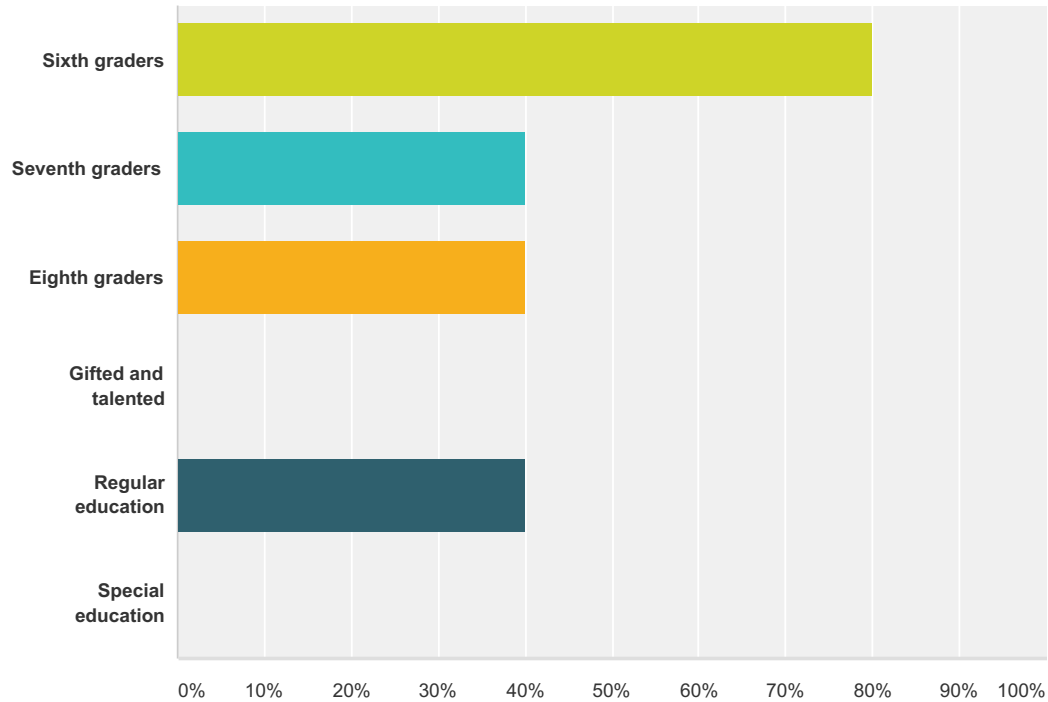
Answer Choices	Responses	
Sixth graders	**80.00%**	4
Seventh graders	**40.00%**	2
Eighth graders	**40.00%**	2
Gifted and talented	**0.00%**	0
Regular education	**40.00%**	2
Special education	**0.00%**	0
Total Respondents: 5		

#	Other (please specify)	Date
	There are no responses.	

Q11 When did your Future City group meet? (Choose all that apply)

Answered: 5   Skipped: 0
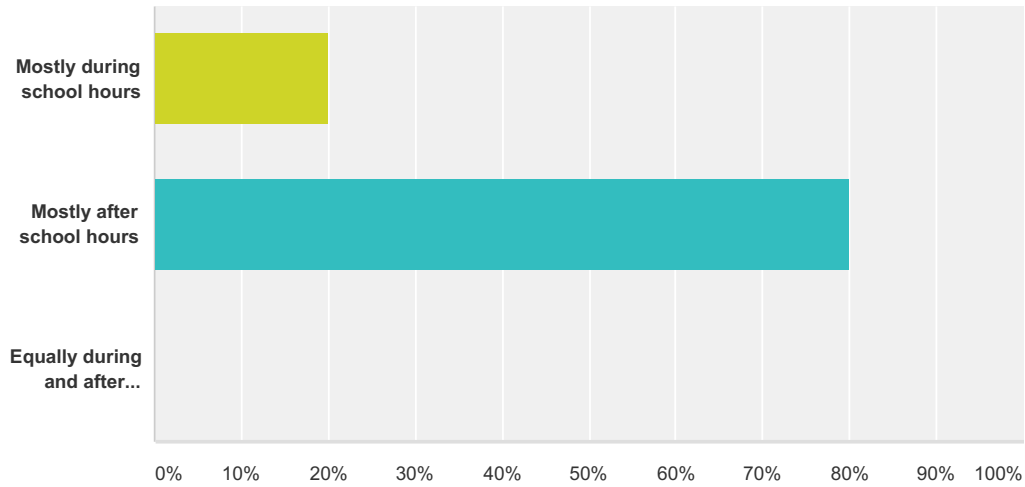
Answer Choices	Responses	
Mostly during school hours	**20.00%**	1
Mostly after school hours	**80.00%**	4
Equally during and after school	**0.00%**	0
Total Respondents: 5		

#	Other (please specify)	Date
1	and before school	3/24/2015 5:44 PM

Q12 For the students in the competition, please estimate the total number of hours the average student worked on Future City from start to finish:

Answered: 5   Skipped: 0

#	Responses	Date
1	10-14	4/1/2015 12:19 PM
2	25	3/25/2015 5:45 PM
3	approx. 45-50 hrs	3/24/2015 5:44 PM
4	30 - 40 hours	3/24/2015 3:32 PM
5	50	3/24/2015 3:03 PM

Q13 For the students who did NOT go to the competition, please estimate the number of hours the average student worked on Future City from start to finish:

Answered: 5   Skipped: 0

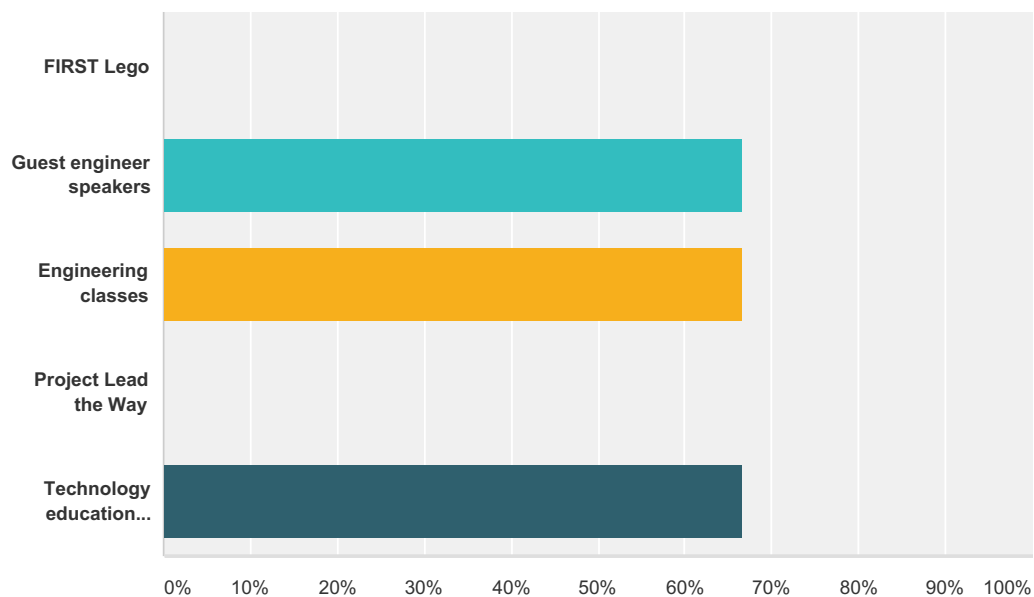| #	Responses	Date
1	3-10	4/1/2015 12:19 PM
2	All attended	3/25/2015 5:45 PM
3	same	3/24/2015 5:44 PM
4	25 - 30 hours	3/24/2015 3:32 PM
5	0	3/24/2015 3:03 PM

Q14 Please estimate the number of hours YOU worked on Future City this academic year (2013-2014) from start to finish?

Answered: 5   Skipped: 0

#	Responses	Date
1	35	4/1/2015 12:19 PM
2	30	3/25/2015 5:45 PM
3	65	3/24/2015 5:44 PM
4	40 - 50 hours	3/24/2015 3:32 PM
5	Wrong year bot about 80 hours	3/24/2015 3:03 PM

Q15 In addition to Future City, which of the following engineering programs does your school offer? (Choose all that apply)

Answered: 3   Skipped: 2

Answer Choices	Responses	
FIRST Lego	0.00%	0

Guest engineer speakers	**66.67%**	2
Engineering classes	**66.67%**	2
Project Lead the Way	**0.00%**	0
Technology education classes	**66.67%**	2
Total Respondents: 3		

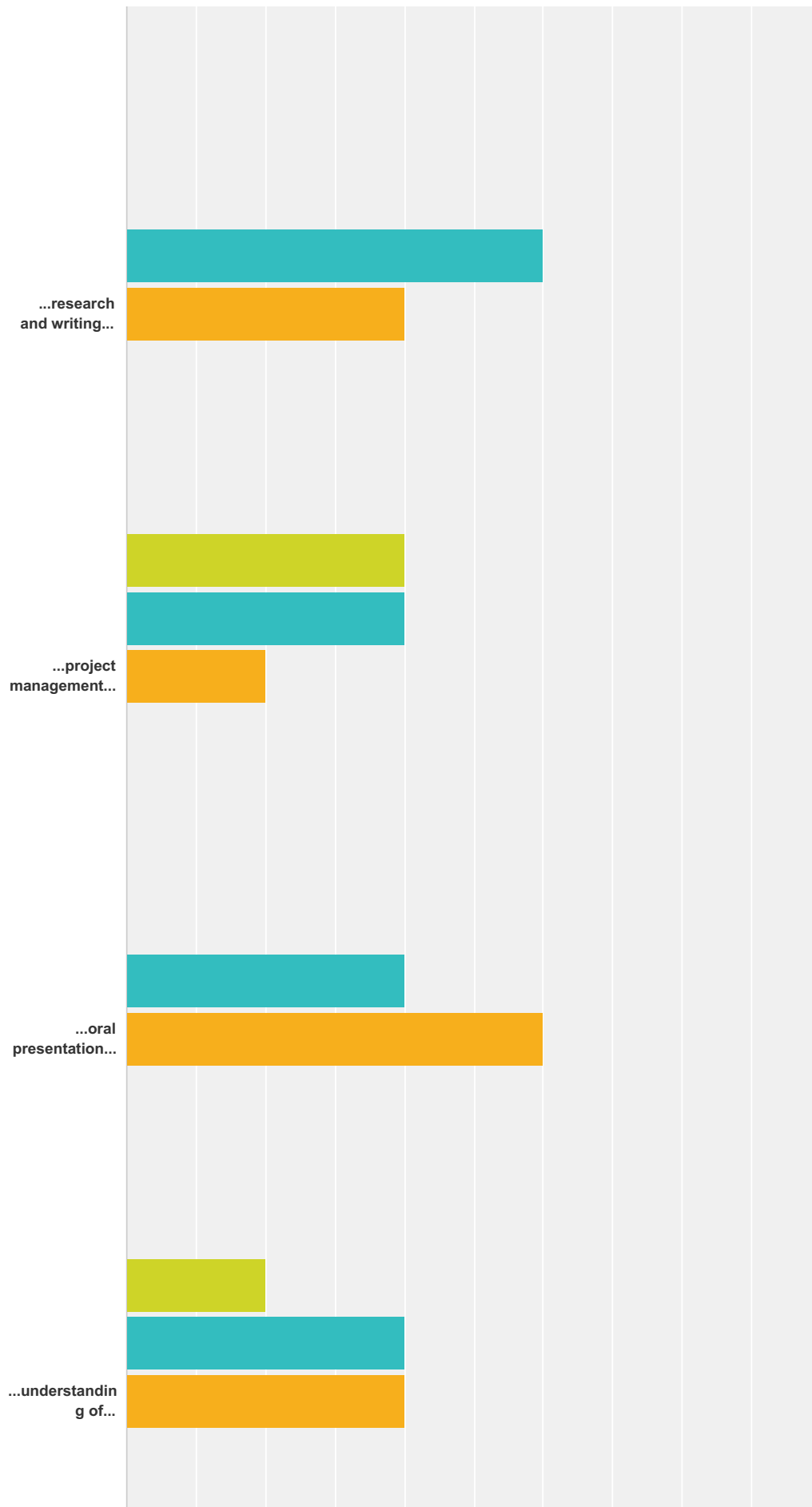| #	Other (please specify)	Date
	There are no responses.	

Q16 Thinking about all the kids in your group as a whole (not just the kids who went to the competition), to what extent did Future City help improve the students'...
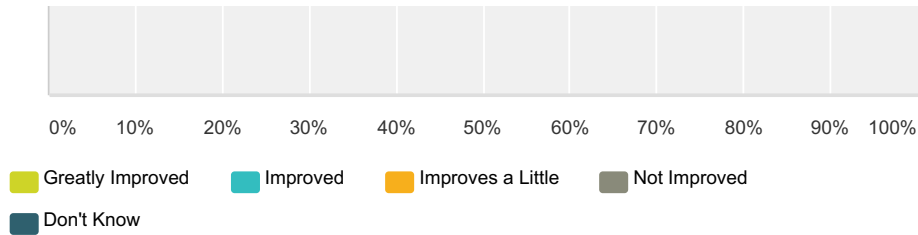
Answered: 5   Skipped: 0

...problem solving skills.

...ability to work in teams.

...comfort working in a...

...research
and writing...

...project
management...

...oral
presentation...

...understandin
g of...
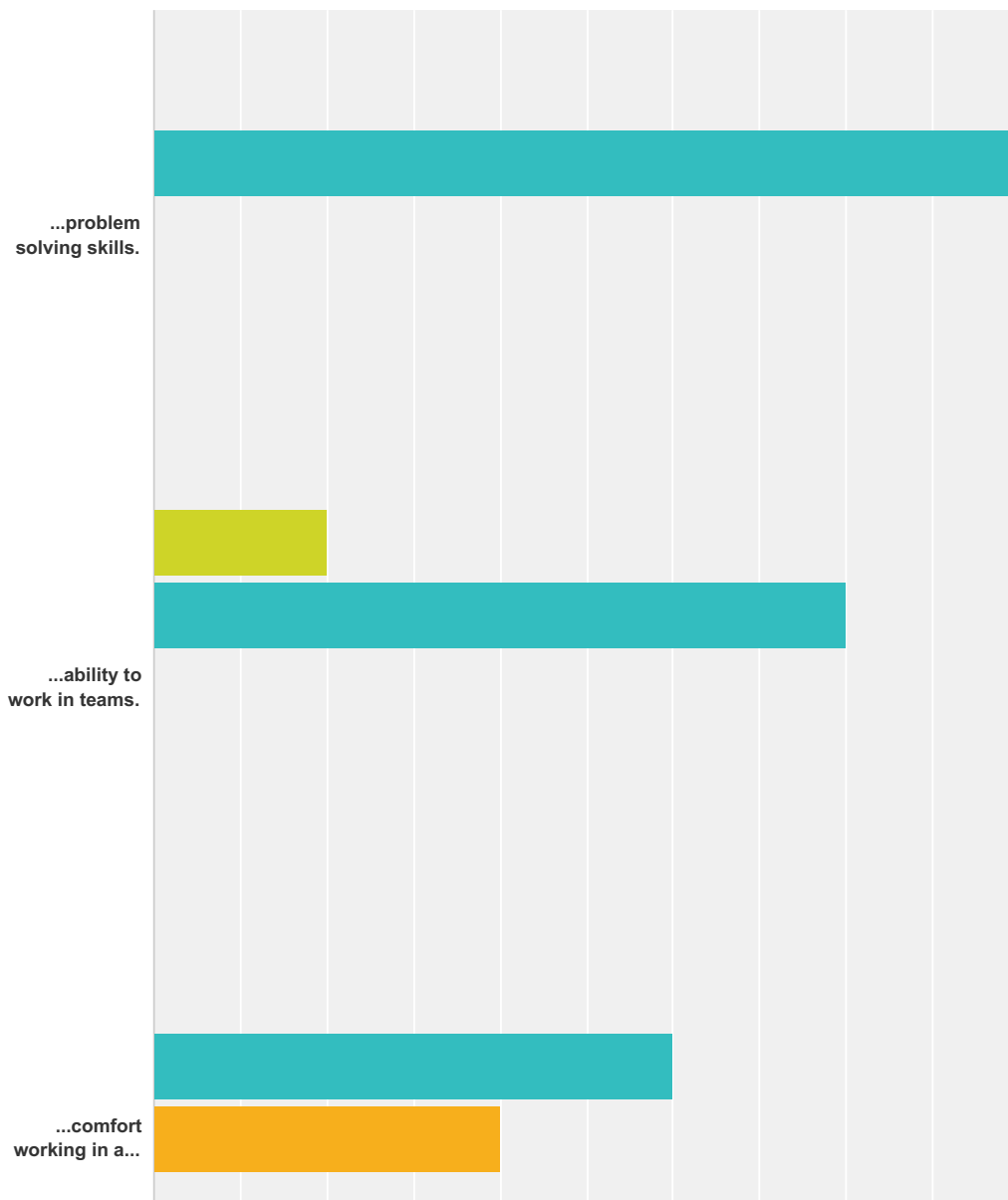
Future City Teacher Survey FY

	Greatly Improved	Improved	Improves a Little	Not Improved	Don't Know	Total
...problem solving skills.	0.00% 0	100.00% 5	0.00% 0	0.00% 0	0.00% 0	5
...ability to work in teams.	20.00% 1	80.00% 4	0.00% 0	0.00% 0	0.00% 0	5
...comfort working in a self-directed manner.	0.00% 0	60.00% 3	40.00% 2	0.00% 0	0.00% 0	5
...research and writing skills.	0.00% 0	60.00% 3	40.00% 2	0.00% 0	0.00% 0	5
...project management skills.	40.00% 2	40.00% 2	20.00% 1	0.00% 0	0.00% 0	5
...oral presentation skills.	0.00% 0	40.00% 2	60.00% 3	0.00% 0	0.00% 0	5
...understanding of engineering.	20.00% 1	40.00% 2	40.00% 2	0.00% 0	0.00% 0	5

#	If no improvement, please explain:	Date
	There are no responses.	

Q17 Please use this space to share any anecdotes or stories about how Future City impacted a student or group of students.

Answered: 5   Skipped: 0

#	Responses	Date
1	Working with an engineering mentor, gave certain the girls the confidence to perform and report on research that they never had before. They also had a better understanding that there is more than 1 way to address/solve a problem.	4/1/2015 12:19 PM
2	This was new to everyone involved and we had to squeeze in a lot of work into a short period of time so we had to gloss over a lot of things in order to achieve a finished product. In the coming years we hope to get a much earlier start so we can dig in deeper and take more risks.	3/25/2015 5:45 PM
3	they understood better what happens at competition and when leaving said they new what they needed to change for next yr.	3/24/2015 5:44 PM
4	The 8th grade students this year were so excited about the performance of our group. They want to come back to mentor the students next year.	3/24/2015 3:32 PM
5	I was amazed by the drive and persistence of all the team. The diversity of parts required to participate gave all of the team members a chance to shine.	3/24/2015 3:03 PM

## Q18 Please tell us about any outside speakers or resources you used:

Answered: 2   Skipped: 3

#	Responses	Date
1	-Engineering Mentor -Sim City Engineering Mentor -Visting Whole Foods -Interviewing people in the food industry	4/1/2015 12:19 PM
2	Engineering mentor Jessica Yarmarkovich Somerville Groundworks	3/24/2015 3:32 PM

Q19 We'd like to know how valuable each of the following Future City components was for your students.

Answered: 5   Skipped: 0

Designing a city in SimCity

The essay

Building a model
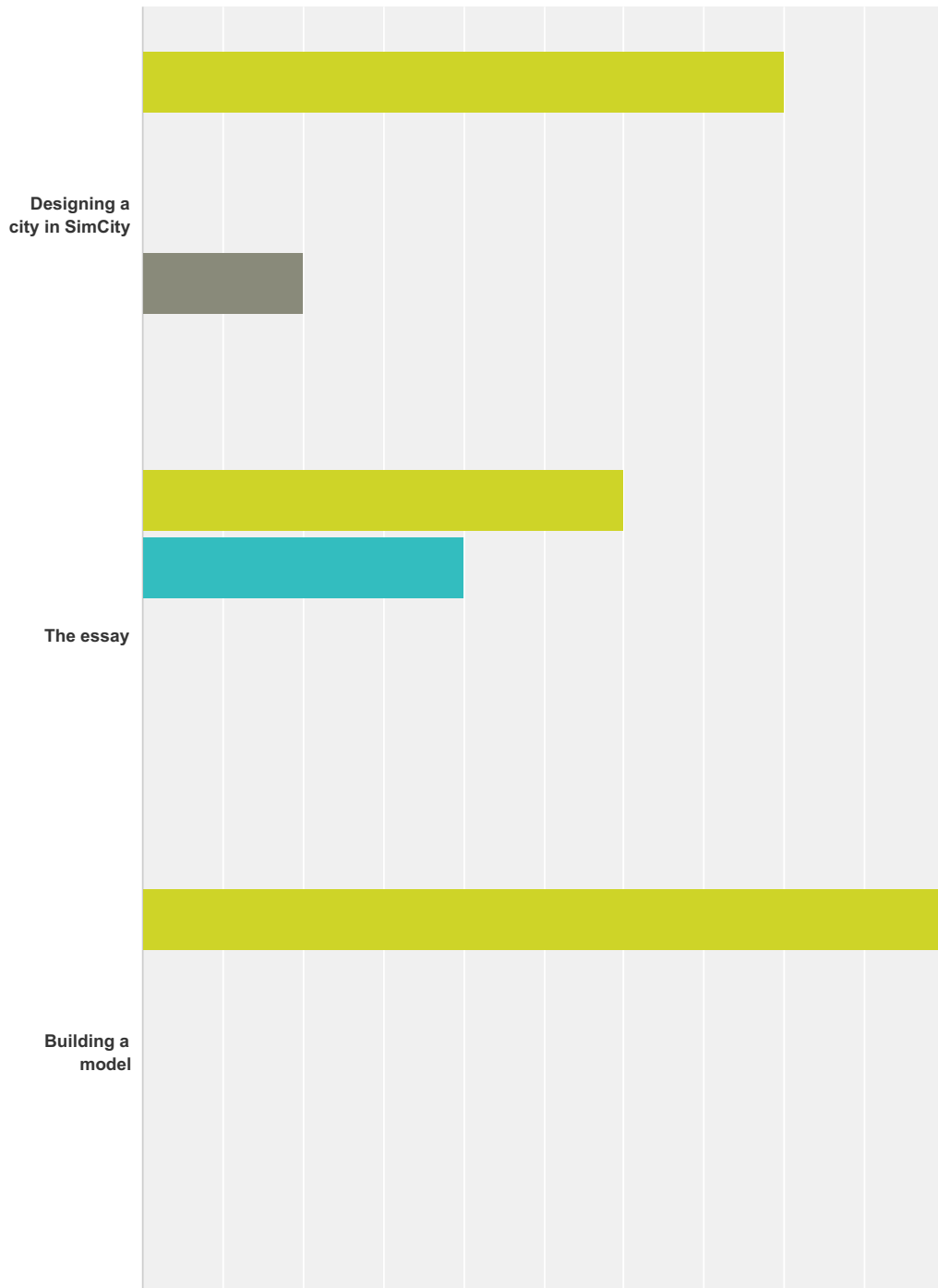
Future City Teacher Survey FY

Working in a team

Working with a mentor

Preparing a presentation

Delivering a presentation

The competition
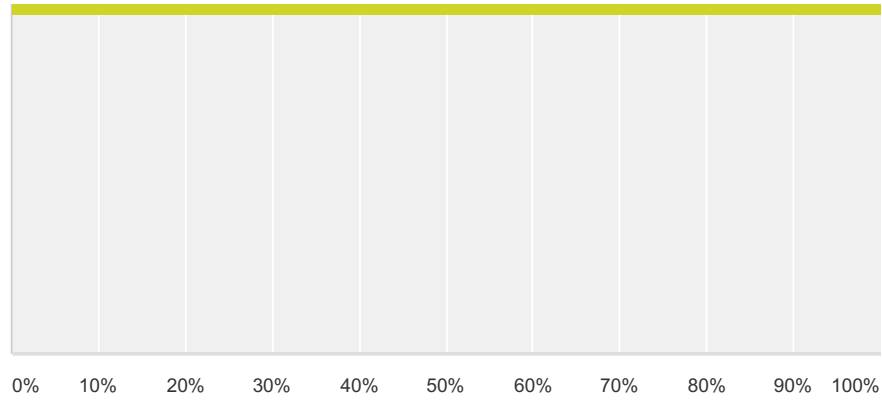
	High Value	Some Value	Little Value	No Value	N/A or Don't Know	Total
Designing a city in SimCity	**80.00%** 4	**0.00%** 0	**0.00%** 0	**20.00%** 1	**0.00%** 0	5
The essay	**60.00%** 3	**40.00%** 2	**0.00%** 0	**0.00%** 0	**0.00%** 0	5
Building a model	**100.00%** 5	**0.00%** 0	**0.00%** 0	**0.00%** 0	**0.00%** 0	5
Working in a team	**100.00%** 5	**0.00%** 0	**0.00%** 0	**0.00%** 0	**0.00%** 0	5
Working with a mentor	**60.00%** 3	**40.00%** 2	**0.00%** 0	**0.00%** 0	**0.00%** 0	5
Preparing a presentation	**40.00%** 2	**60.00%** 3	**0.00%** 0	**0.00%** 0	**0.00%** 0	5
Delivering a presentation	**80.00%** 4	**20.00%** 1	**0.00%** 0	**0.00%** 0	**0.00%** 0	5
The competition	**100.00%** 5	**0.00%** 0	**0.00%** 0	**0.00%** 0	**0.00%** 0	5

#	If no value, please explain:	Date
1	It is challenging to allocate enough time to prepare and deliver the presentation. I do think that the finalist component of the competition is long when teams have lost interest because they are not a finalist. It would be great if they could incorporate a challenge for the non-winning teams to make them interested in the finalist presentations.	4/1/2015 12:19 PM

Q20 Future City helped my students learn how to plan a project.

Answered: 5   Skipped: 0
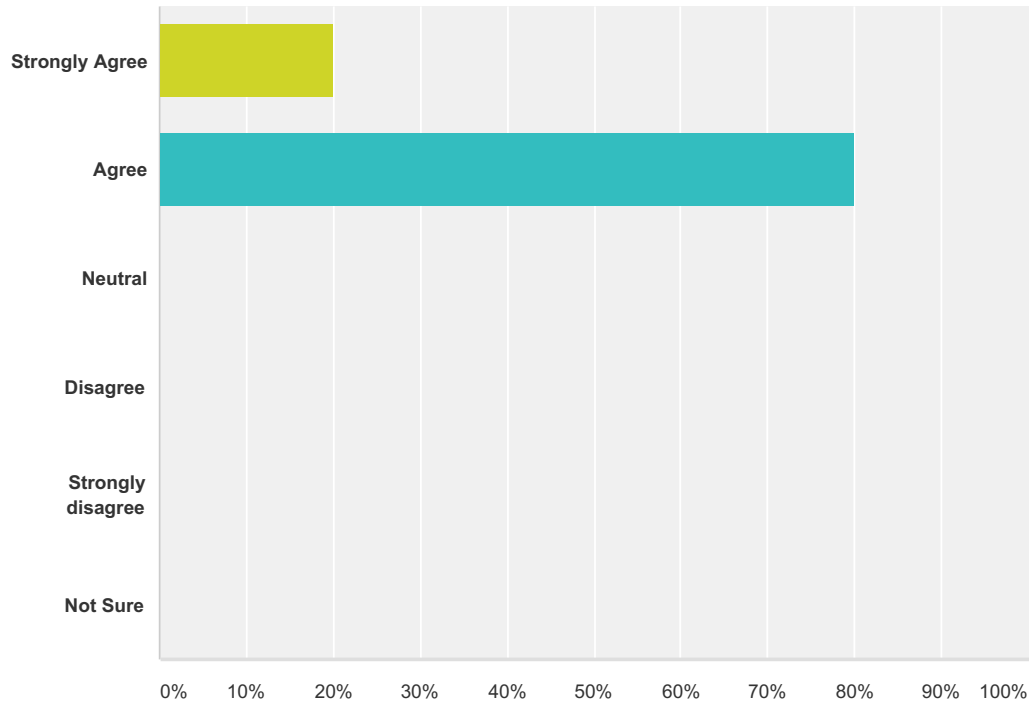
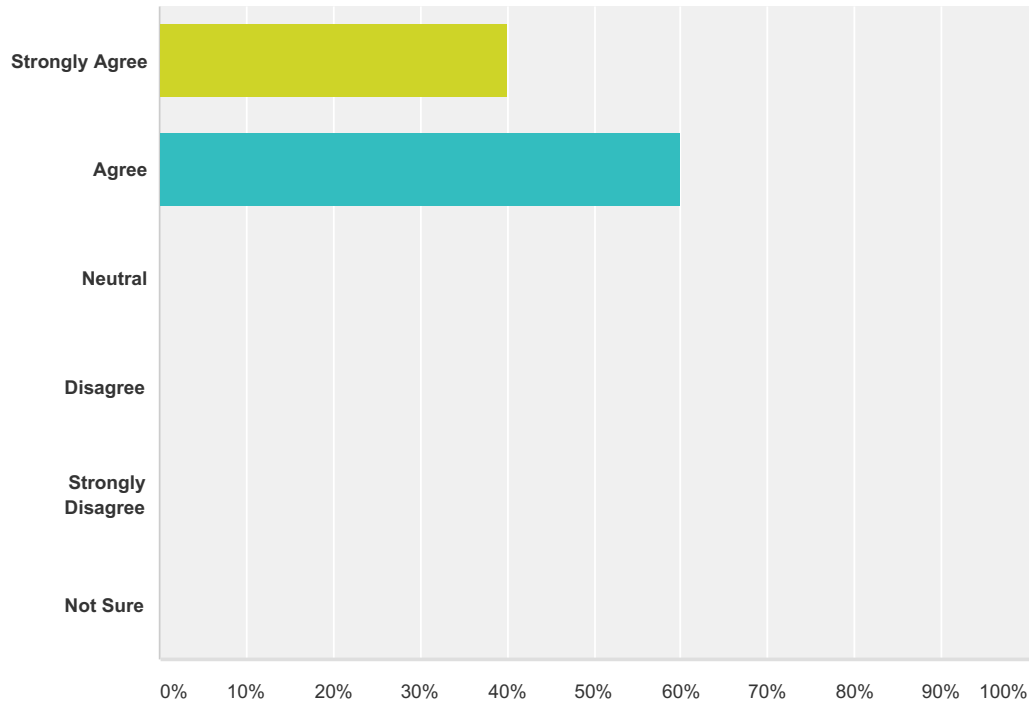| Answer Choices	Responses	
Strongly Agree	**20.00%**	1
Agree	**80.00%**	4
Neutral	**0.00%**	0
Disagree	**0.00%**	0
Strongly disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total		5

Q21 Future City helped my students learn how to execute a project.

Answered: 5   Skipped: 0

Answer Choices	Responses	
Strongly Agree	**40.00%**	2
Agree	**60.00%**	3
Neutral	**0.00%**	0
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total		5

Q22 Future City helped my students feel comfortable working in a self-directed manner.
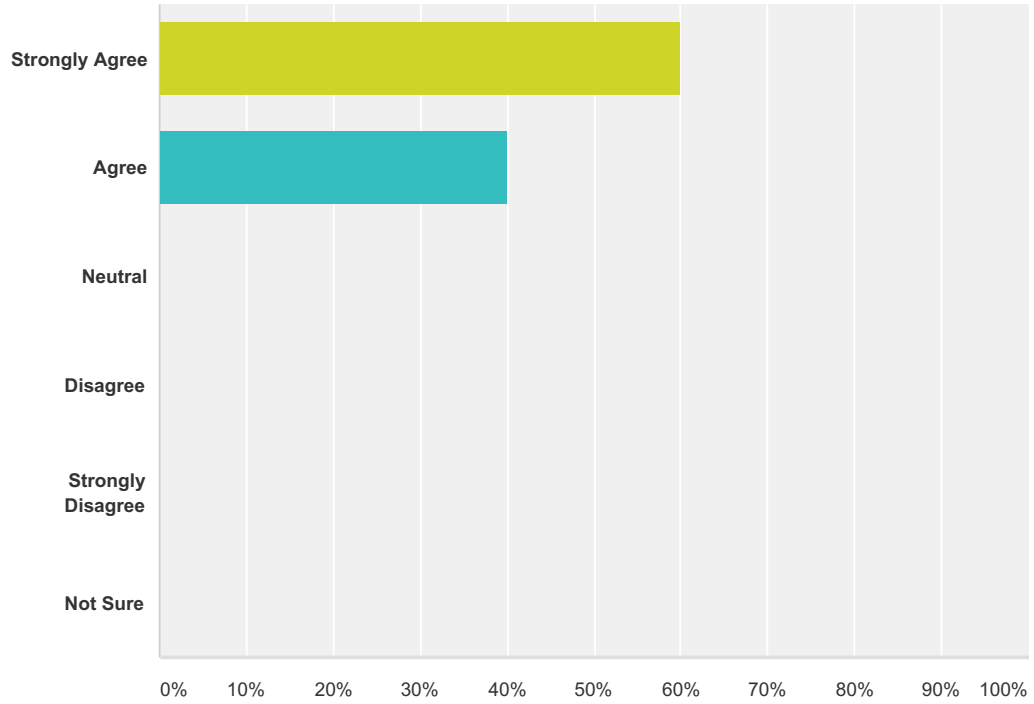
Answered: 5   Skipped: 0
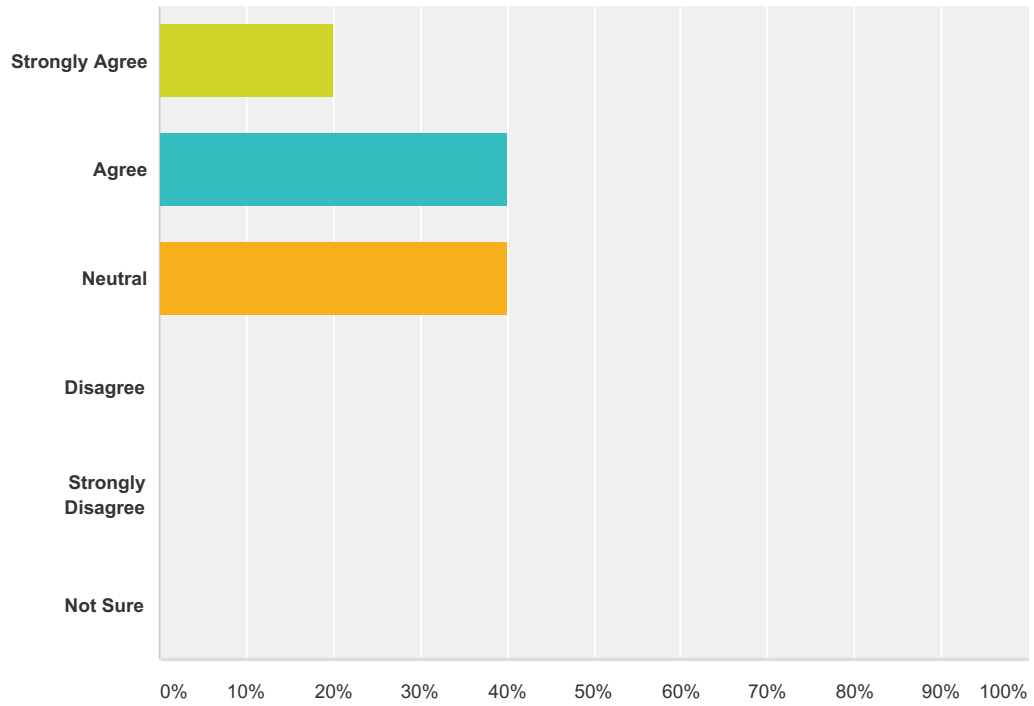
Answer Choices	Responses	
Strongly Agree	**20.00%**	1
Agree	**40.00%**	2
Neutral	**40.00%**	2
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total		5

Q23 Future City helped my students learn about the engineering design process.

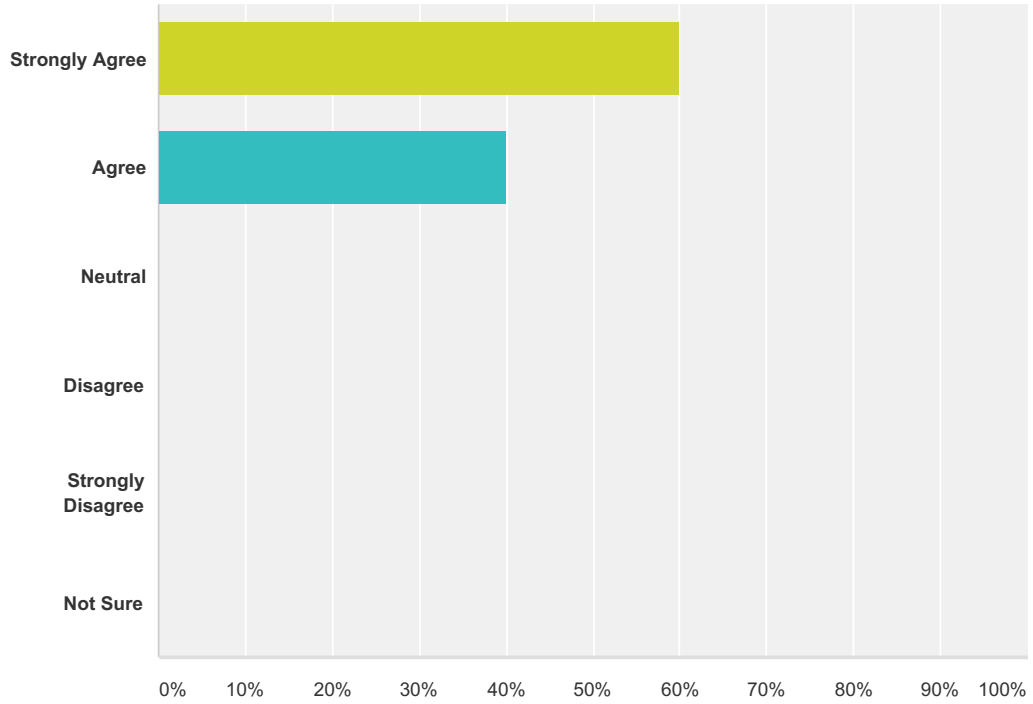Answered: 5   Skipped: 0

Future City Teacher Survey FY

Answer Choices	Responses	
Strongly Agree	**60.00%**	3
Agree	**40.00%**	2
Neutral	**0.00%**	0
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total Respondents: 5		

Q24 Future City helped my students learn about how cities work.

Answered: 5   Skipped: 0

Answer Choices	Responses	
Strongly Agree	**60.00%**	3
Agree	**40.00%**	2
Neutral	**0.00%**	0
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total		5

Q25 Future City helped my students learn how to use engineering to solve real world problems.
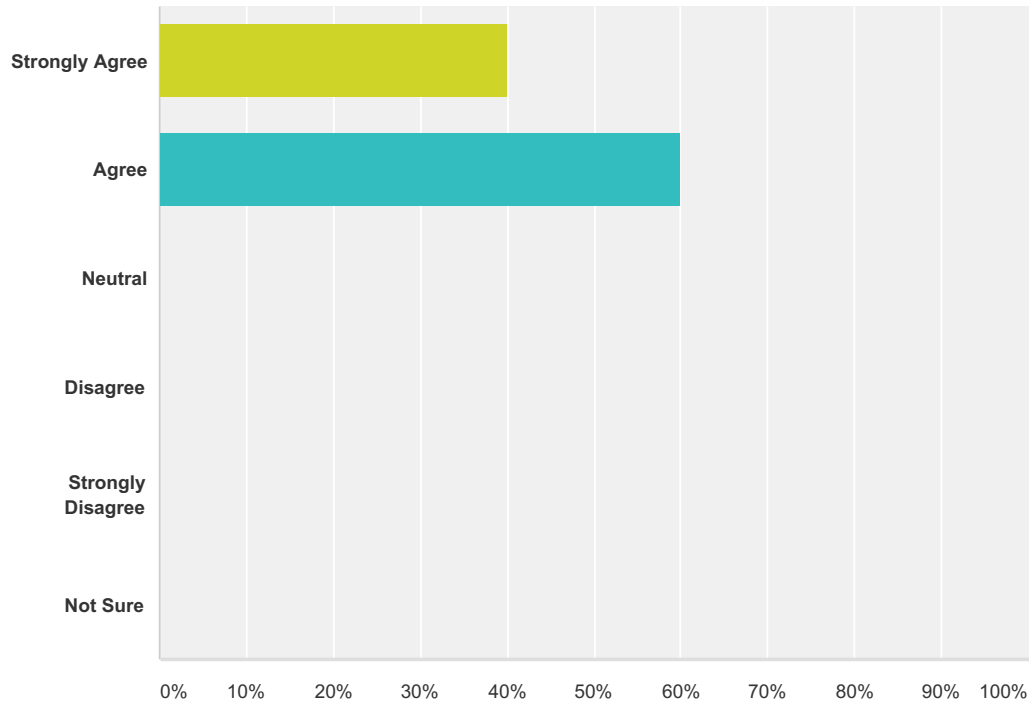
Answered: 5   Skipped: 0
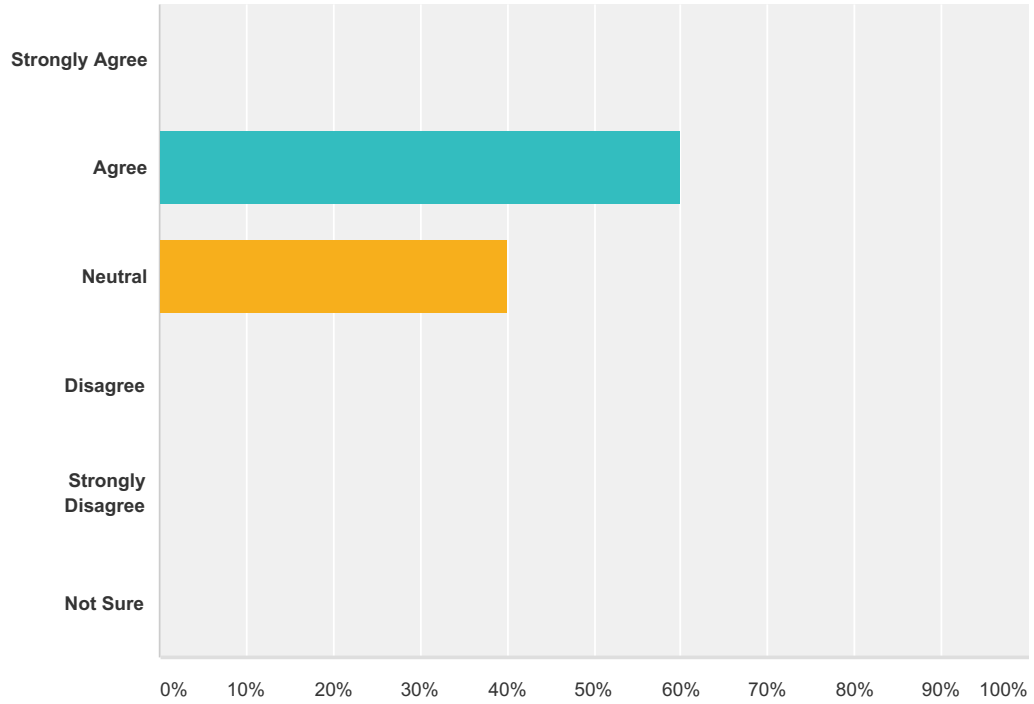
Future City Teacher Survey FY

Answer Choices	Responses	
Strongly Agree	**0.00%**	0
Agree	**60.00%**	3
Neutral	**40.00%**	2
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total		5

Q26 Future City helped my students improve their ability to work with a team.

Answered: 5   Skipped: 0
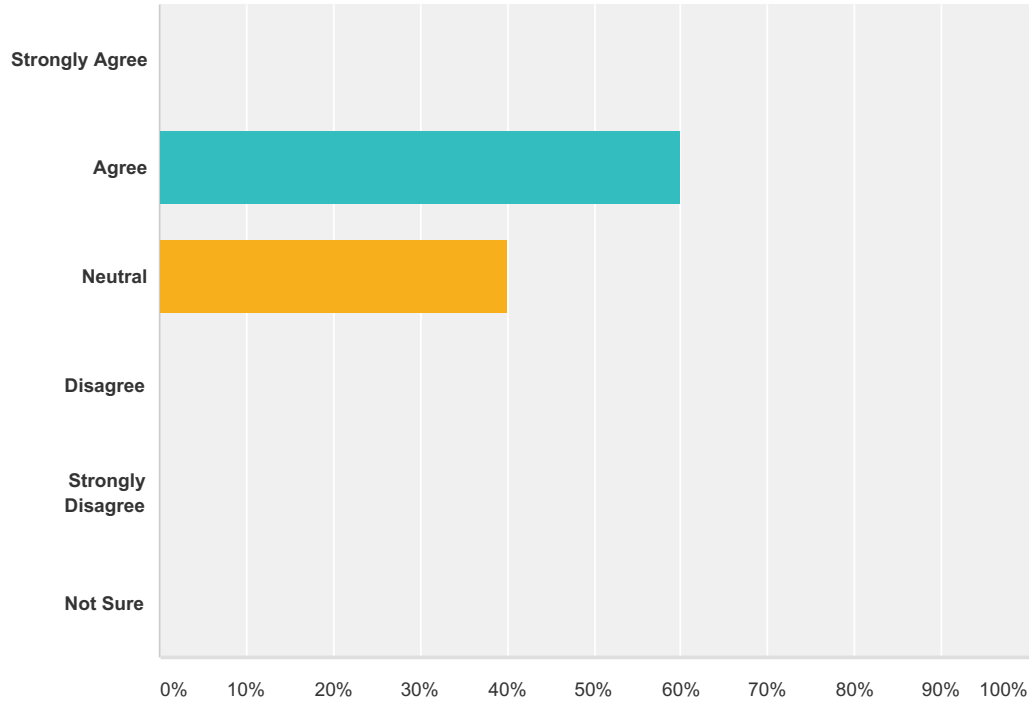
Future City Teacher Survey FY

Answer Choices	Responses	
Strongly Agree	**40.00%**	2
Agree	**60.00%**	3
Neutral	**0.00%**	0
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total		5

Q27 Future City helped my students improve their writing skills.

Answered: 5   Skipped: 0

Answer Choices	Responses	
Strongly Agree	**0.00%**	0
Agree	**60.00%**	3
Neutral	**40.00%**	2
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total		5

Q28 Future City helped my students improve their research skills.

Answered: 5   Skipped: 0
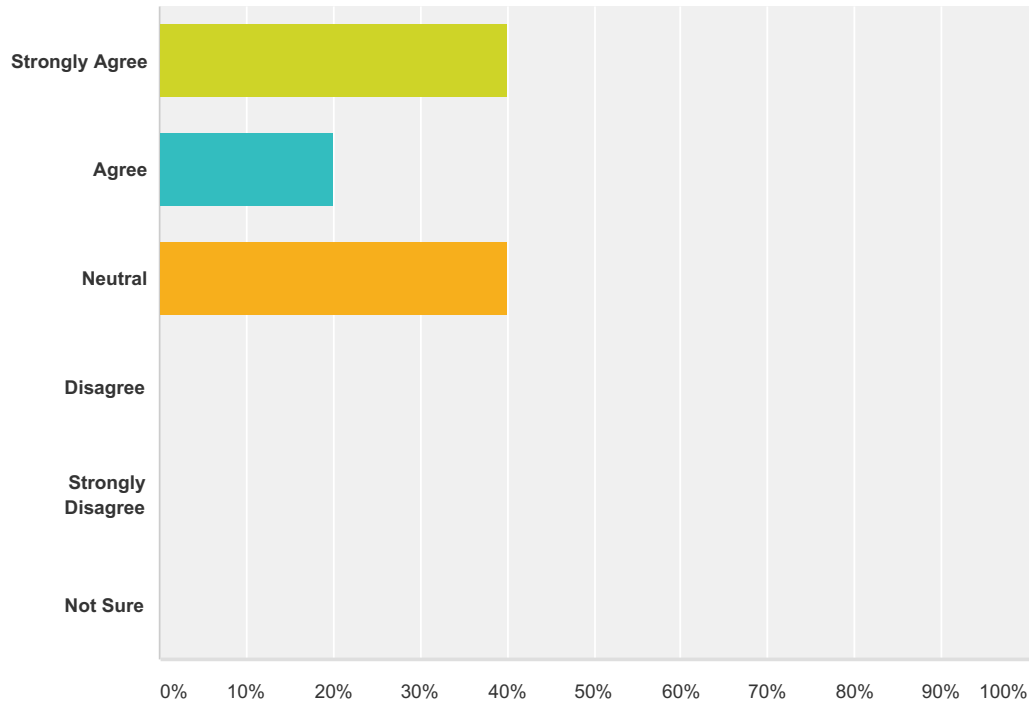
Answer Choices	Responses	
Strongly Agree	**40.00%**	2
Agree	**20.00%**	1
Neutral	**40.00%**	2
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total		5

Q29 Future City helped my students improve their public speaking skills.

Answered: 5   Skipped: 0
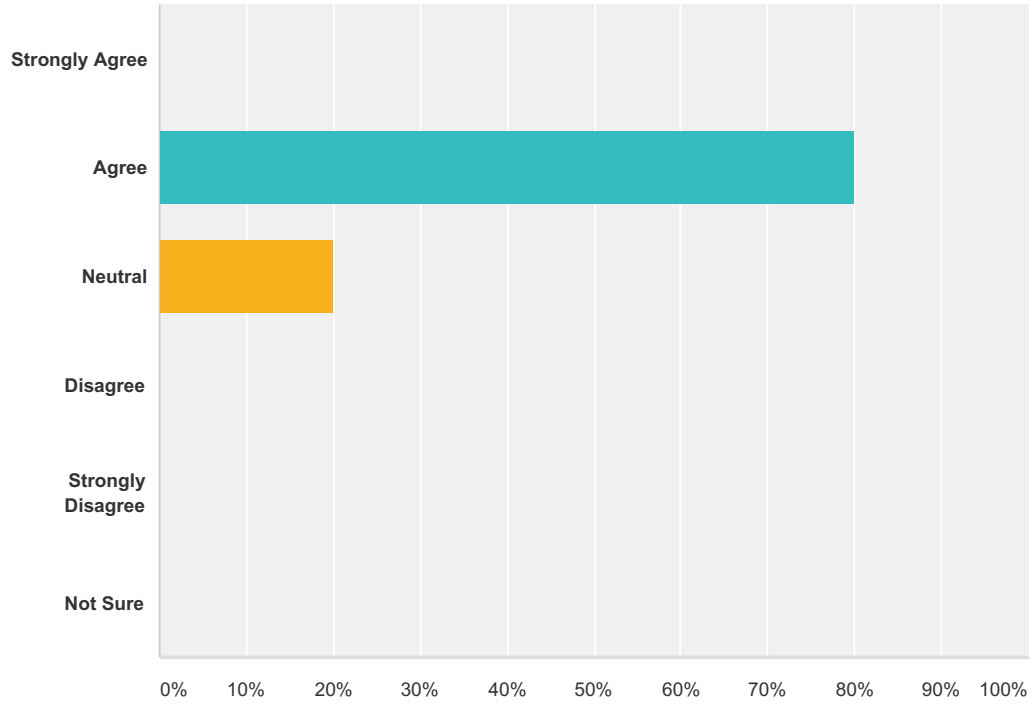
Answer Choices	Responses	
Strongly Agree	**0.00%**	0
Agree	**80.00%**	4
Neutral	**20.00%**	1
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total		**5**

Q30 Future City helped my students improve their time management skills.

Answered: 5   Skipped: 0

Future City Teacher Survey FY
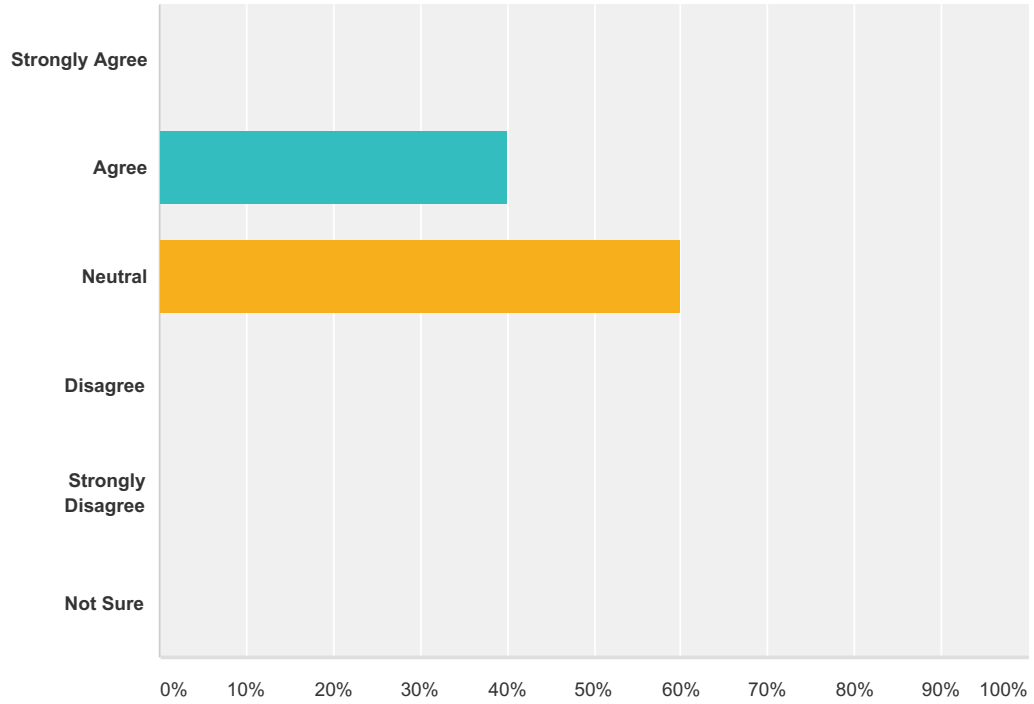
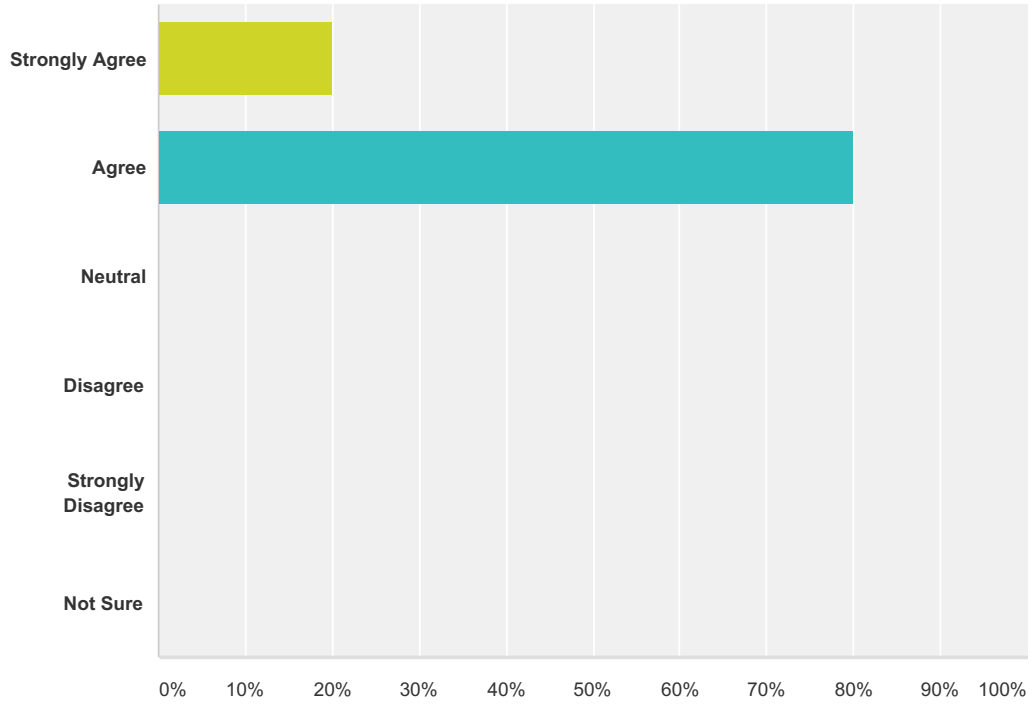| Answer Choices	Responses	
Strongly Agree	0.00%	0
Agree	40.00%	2
Neutral	60.00%	3
Disagree	0.00%	0
Strongly Disagree	0.00%	0
Not Sure	0.00%	0
Total		5

Q31 Future City helped my students improve their problem-solving skills.

Answered: 5   Skipped: 0

Answer Choices	Responses	
Strongly Agree	**20.00%**	1
Agree	**80.00%**	4
Neutral	**0.00%**	0
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total		5

Q32 The amount of work Future City required was appropriate for my students.

Answered: 5   Skipped: 0
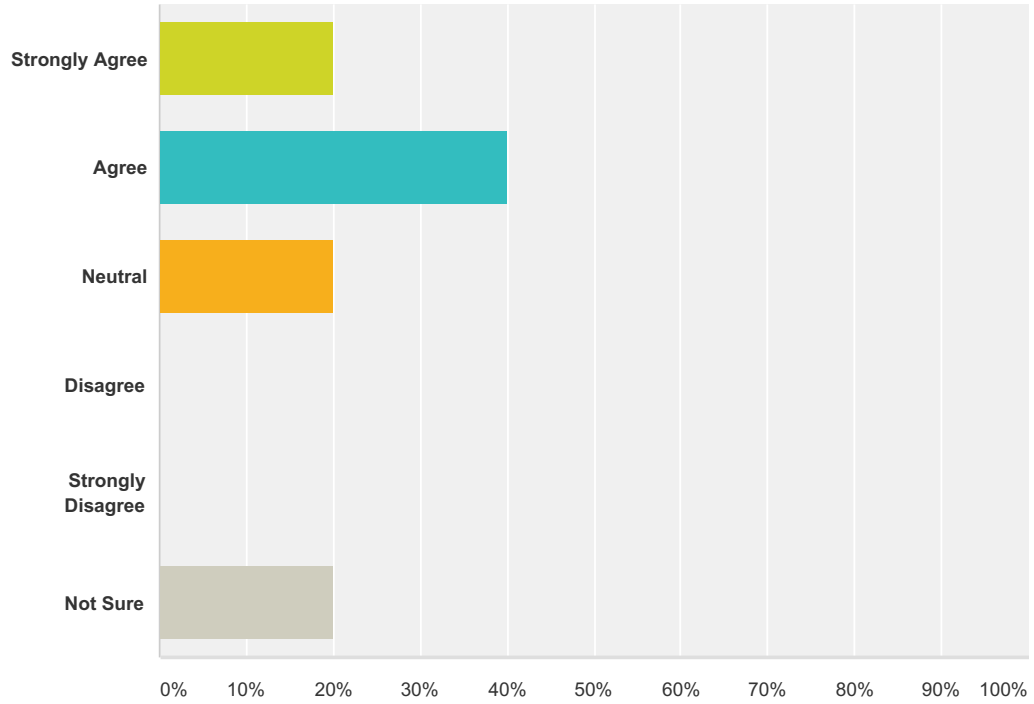
Answer Choices	Responses	
Strongly Agree	**20.00%**	1
Agree	**40.00%**	2
Neutral	**20.00%**	1
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**20.00%**	1
Total		5

Q33 The amount of work Future City required was appropriate for me.

Answered: 5   Skipped: 0
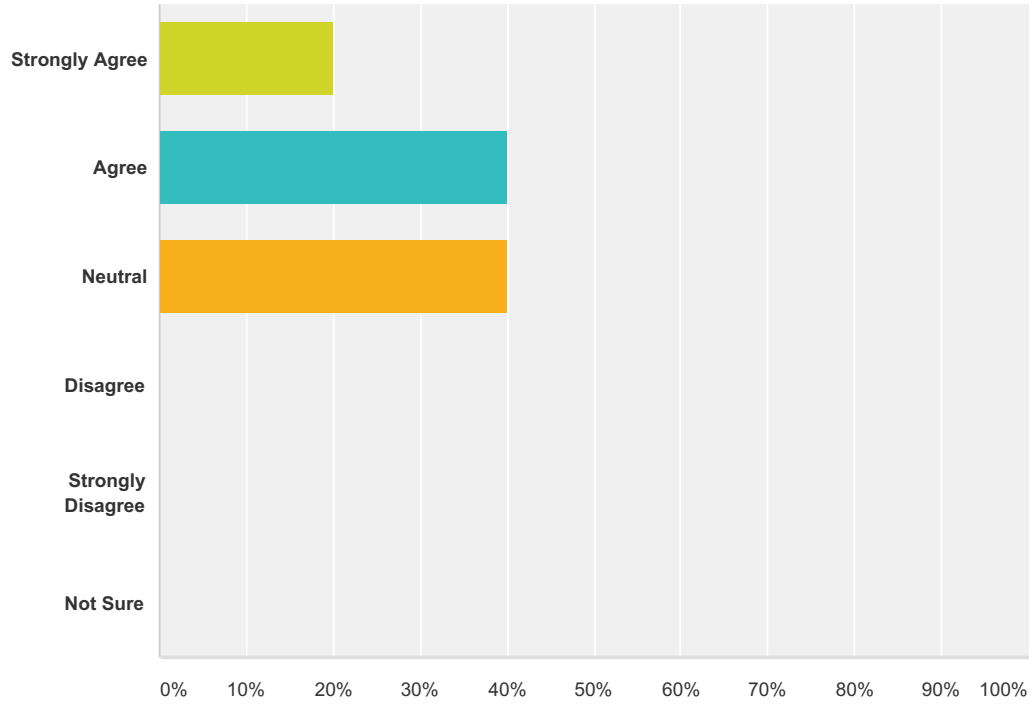
Answer Choices	Responses	
Strongly Agree	**20.00%**	1
Agree	**40.00%**	2
Neutral	**40.00%**	2
Disagree	**0.00%**	0
Strongly Disagree	**0.00%**	0
Not Sure	**0.00%**	0
Total		5

Q34 Did you have an engineer mentor this year?

Answered: 5   Skipped: 0

Future City Teacher Survey FY
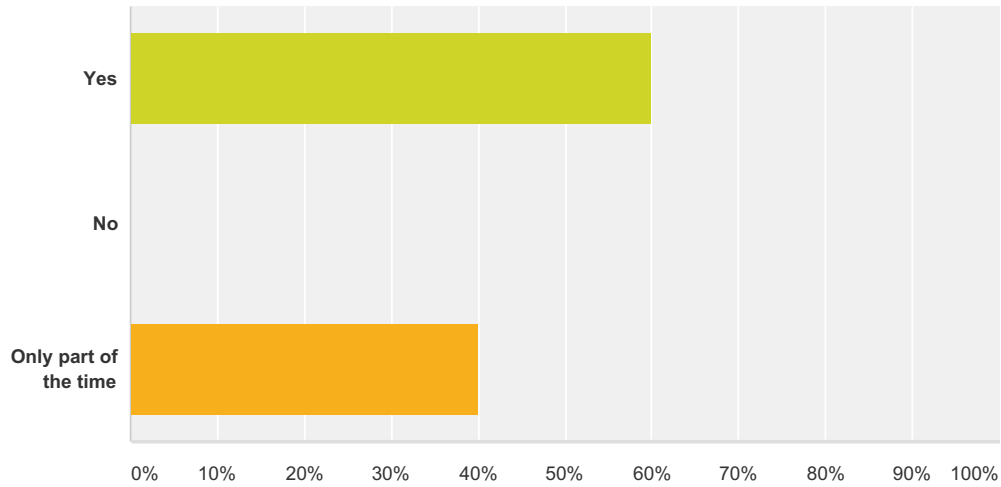
Answer Choices	Responses	
Yes	**60.00%**	3
No	**0.00%**	0
Only part of the time	**40.00%**	2
Total		5

Q35 What challenges, if any, did you encounter with your mentor or in getting a mentor?

Answered: 4   Skipped: 1

#	Responses	Date
1	The problem always lie in getting a mentor. Also, I think more time with the mentor would be helpful.	4/1/2015 12:26 PM
2	I was the mentor, we were unable to find somebody else.	3/25/2015 5:58 PM
3	took a while to get a mentor late	3/24/2015 5:58 PM
4	An abundance of snow days	3/24/2015 3:41 PM

Q36 In what ways, if any, did Future City support your curricular goals? Please be specific.

Answered: 5   Skipped: 0

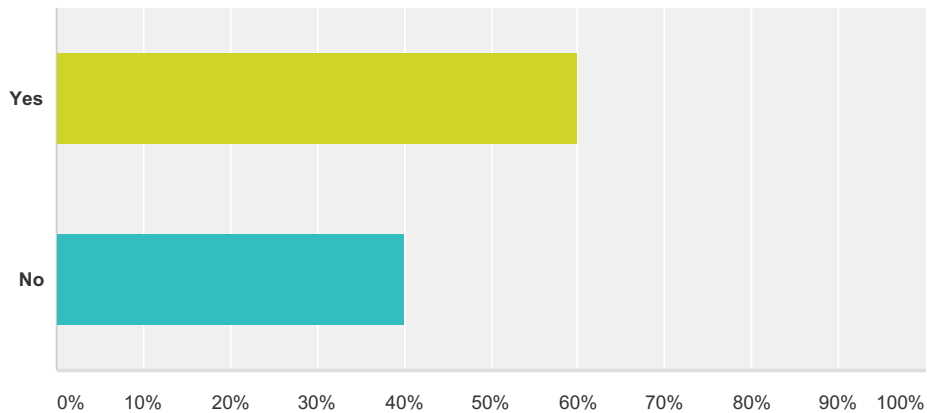| #	Responses	Date
1	-Girls understand the E/D process better -Girls understand scale better	4/1/2015 12:26 PM
2	STEM activities are our focus	3/25/2015 5:58 PM
3	It fits well with the 6th grade curriculum and works into 7th grade	3/24/2015 5:58 PM
4	Students were able to apply their knowledge of the engineering design process to lessons in class on the topic.	3/24/2015 3:41 PM

| 5 | Team was extracurricular . | 3/24/2015 3:11 PM |

Q37 How easy or challenging has it been to make connections between the simulation (SimCity), the essay, and the model? Please explain.

Answered: 4   Skipped: 1

#	Responses	Date
1	It could be challenging at times because time allowed only for certain girls to be dedicated to certain components of the competition. It was beneficial for the girls to be exposed to all elements of the competition to understand the overall goals of the competition.	4/1/2015 12:26 PM
2	It was challenging to sim city with model really did not help them when planning. and hard time getting it onto our computer	3/24/2015 5:58 PM
3	It was much easier my second year connecting the needs of the SimCity game to the needs of a city. It helped us see all the interconnected parts. Then the we made sure we applied all those items to the essay along with the needs of the farming problems. The combination of these two allowed us to focus on the needs of our model, which was much more fully realized this year.	3/24/2015 3:41 PM
4	It was a great overall experience for novice city planners	3/24/2015 3:11 PM

Q38 Did the Learning Blocks help you teach science concepts related to engineering?

Answered: 5   Skipped: 0

Answer Choices	Responses	
Yes	60.00%	3
No	40.00%	2
Total		5

#	If not, please explain:	Date
1	Challenging to do these and then accomplish all components of the competition.	4/1/2015 12:26 PM
2	Didnt use	3/25/2015 5:58 PM

Q39 Did the Future City activities align and/or assist in teaching common core standards?

Answered: 5   Skipped: 0
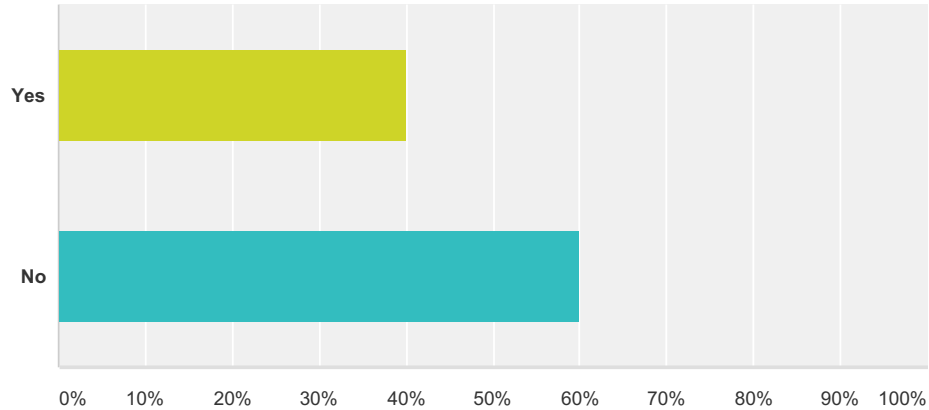
Answer Choices	Responses	
Yes	**40.00%**	2
No	**60.00%**	3
Total		5

#	If yes, please explain:	Date
1	I am not really sure about the common core standards, but when looking at the NGSS, one of the focuses is building models. Using SimCity and making a model city were two models used to represent a city as a whole.	3/24/2015 3:41 PM

Q40 Please tell us whether these resources were helpful.

Answered: 5   Skipped: 0

The
FutureCity.o...
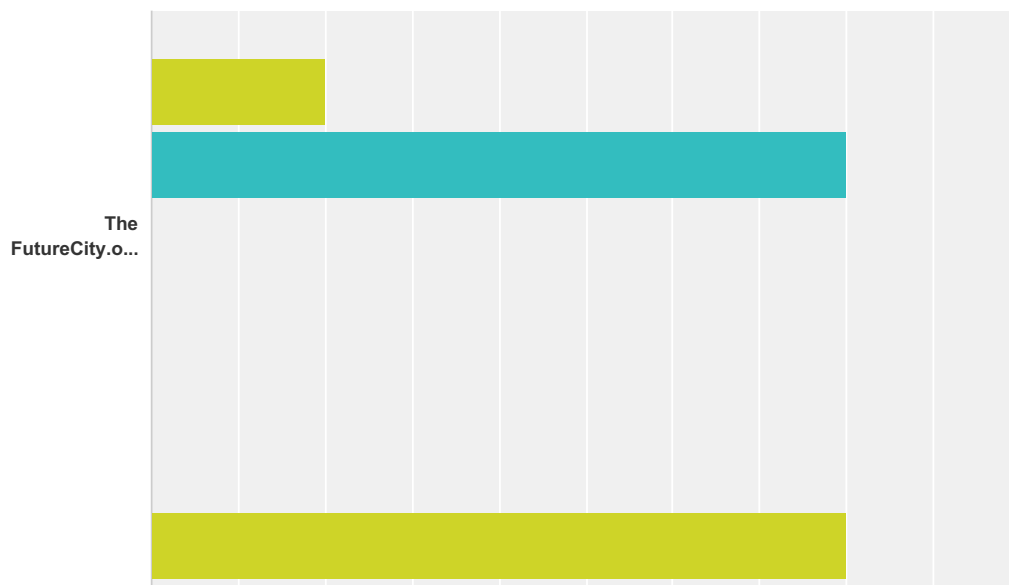
Future City Teacher Survey FY

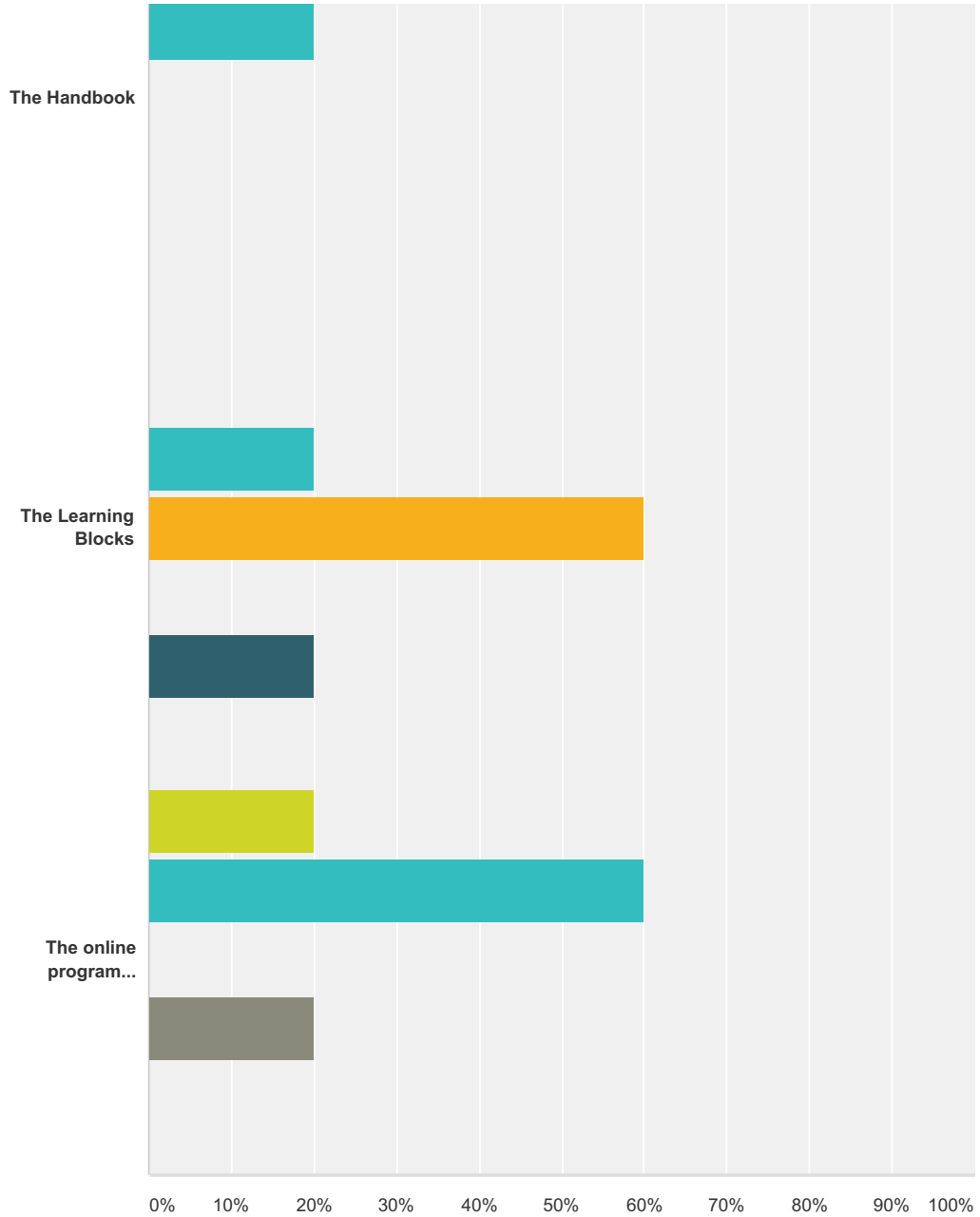|	Very Helpful	Helpful	A Little Helpful	Not Helpful	I Didn't Use This	Total
The FutureCity.org website	**20.00%** 1	**80.00%** 4	**0.00%** 0	**0.00%** 0	**0.00%** 0	5
The Handbook	**80.00%** 4	**20.00%** 1	**0.00%** 0	**0.00%** 0	**0.00%** 0	5
The Learning Blocks	**0.00%** 0	**20.00%** 1	**60.00%** 3	**0.00%** 0	**20.00%** 1	5
The online program calendar	**20.00%** 1	**60.00%** 3	**0.00%** 0	**20.00%** 1	**0.00%** 0	5

#	If not, please explain:	Date

1	I think the dates did not align well on the calendar.	4/1/2015 12:26 PM

Q41 Are there other resources that would be useful? Please describe.

Answered: 2   Skipped: 3

#	Responses	Date
1	Learning blocks in a box. Facilitation	4/1/2015 12:26 PM
2	I think posters or printed examples of zones	3/24/2015 5:58 PM

Q42 Would you recommend Future City to a colleague?

Answered: 5   Skipped: 0
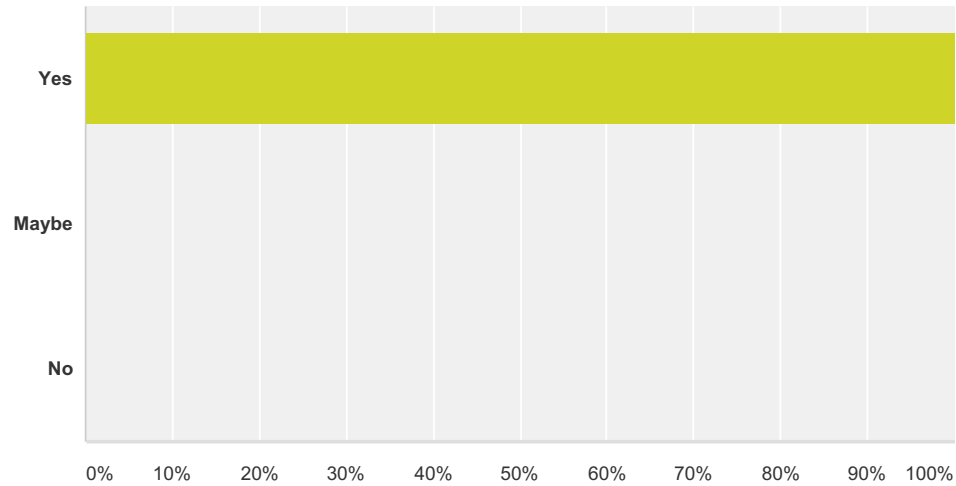
Answer Choices	Responses	
Yes	100.00%	5
Maybe	0.00%	0
No	0.00%	0
Total		5

Q43 To what extend did Future City meet your expectations this year?

Answered: 5   Skipped: 0
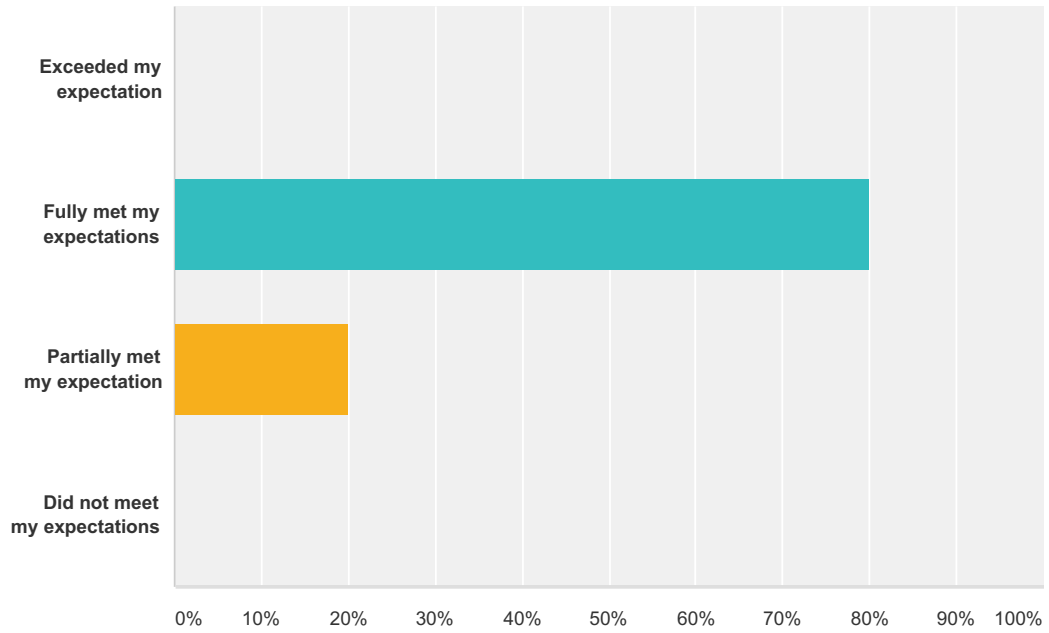
Answer Choices		Responses	
Exceeded my expectation		**0.00%**	0
Fully met my expectations		**80.00%**	4
Partially met my expectation		**20.00%**	1
Did not meet my expectations		**0.00%**	0
Total			**5**

Q44 Do you want to participate in the Future City Competition next year?

Answered: 5   Skipped: 0
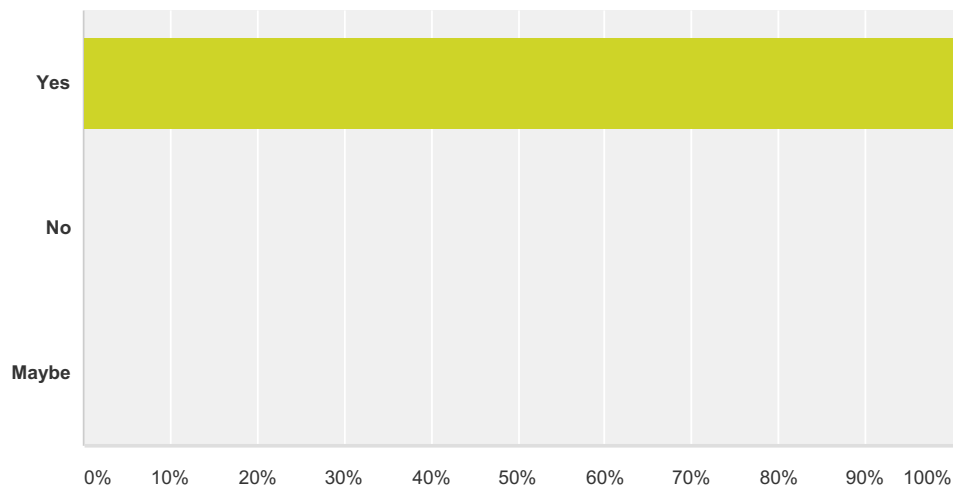
Answer Choices	Responses	
Yes	**100.00%**	5

No	**0.00%**	0
Maybe	**0.00%**	0
Total		**5**

Q45 Please describe all highlights and accomplishments while participating in the Future City Program this year:

Answered: 5   Skipped: 0

#	Responses	Date
1	The growth some of the girls experience is amazing to witness.	4/1/2015 12:26 PM
2	Seeing the kids working together on the model and break themselves into teams to accomplish tasks was impressive. They ddi everything on a very short timeline and never complained about the amount of work. Many of them would skip their lunch periods to work on the model during the final phases of the project.	3/25/2015 5:58 PM
3	My students saw how their hard work payed off	3/24/2015 5:58 PM
4	The highlight for my students and myself was winning the Best Educational System special award. The students were thrilled that they were recognized for their hard work.	3/24/2015 3:41 PM
5	3rd place regional competition	3/24/2015 3:11 PM

Q46 Please describe all challenges and lessons learned participating in the Future City Program this year:

Answered: 5   Skipped: 0

#	Responses	Date
1	There is not enough time and keeping the girls engaged.	4/1/2015 12:26 PM
2	Start earlier! We also had tech issues because we have older computers that did not meet the requirements to use Sim City which created problems for us during the beginning stages.	3/25/2015 5:58 PM
3	having to fight snow days getting students to put in extra time having member attend all meetings,not getting a mentor til very late as well as spending a lot of time getting sim city to work in our school	3/24/2015 5:58 PM
4	Again as with last year, deadlines are some of the harder parts to meet. The deadlines in the fall coincide with winter break and that was hard to coordinate with my students over that time. Additionally, it was difficult to coordinate with my schools IT department, so I again had to go around them to use SimCity.	3/24/2015 3:41 PM
5	After school commitments for middle school students can be difficult.	3/24/2015 3:11 PM

Q47 Please describe any best practices learned:

Answered: 3   Skipped: 2

#	Responses	Date
1	Scale-using growing toys. In building the narrative, using a flip book. Project plan for every element	4/1/2015 12:26 PM

| 2 | students were able to apply the design steps into what they were doing in technology | 3/24/2015 5:58 PM |
| 3 | Using the rubric to design our city and write our essay was the most important best practice. By understanding what the city and essay required, we were able to score much higher this year. | 3/24/2015 3:41 PM |

Q48 Other comments:

Answered: 1   Skipped: 4

#	Responses	Date
1	I think that having topic and team before leaving school in june will be more helpful for my students	3/24/2015 5:58 PM

FY'16 Future City Student Pre Survey

Q1 Name:

Answered: 40   Skipped: 0

#	Responses	Date
1	Cassidy Pa	1/28/2016 11:12 AM
2	Gabby Abreu	1/28/2016 10:43 AM
3	Ammy Gonzalez	1/28/2016 10:41 AM
4	Cherish Nwoko	1/28/2016 10:37 AM
5	Ashley Chavez	1/28/2016 10:35 AM
6	Luis Esqvivei	1/25/2016 10:06 AM
7	Branden Ray Garcia	1/25/2016 10:04 AM
8	Karen maradiaga	1/25/2016 9:47 AM
9	Muhammed Basinka	1/25/2016 9:44 AM
10	Jose Palacios	1/25/2016 9:38 AM
11	Sammy	1/25/2016 9:32 AM
12	Tony Thang	1/25/2016 9:29 AM
13	Jaoa Terra	1/25/2016 9:27 AM
14	Samantha Da Paz Costa	1/25/2016 9:24 AM
15	Arthur Rosa	1/25/2016 9:22 AM
16	Elaine Du	1/22/2016 3:50 PM
17	Angelina Prum	1/22/2016 3:49 PM
18	Suiyenah Chen	1/22/2016 3:47 PM
19	Natalie Chen	1/22/2016 3:45 PM
20	Stephanie Larrieux	1/22/2016 3:40 PM
21	Yossan Chebremicael	1/22/2016 3:39 PM
22	Leslie Rodriquez	1/22/2016 3:36 PM
23	Subaydo Aden	1/22/2016 3:35 PM
24	Ethan Torino	1/22/2016 3:33 PM
25	Gerelle Vieira	1/22/2016 3:29 PM
26	Harmanprect Kaur	1/22/2016 3:27 PM
27	Mozn Shora	1/22/2016 3:24 PM
28	Jasmeen Kaur	1/22/2016 3:21 PM
29	Nasreen Kaer	1/22/2016 3:18 PM
30	Hannah O'Sullivan	1/22/2016 3:15 PM
31	Da ban Fasah	1/22/2016 3:12 PM
32	Lucca Garcia	1/22/2016 3:09 PM
33	Chris Fortin	1/22/2016 3:07 PM
34	Elmer Varela	1/22/2016 3:06 PM
35	Yessenia Arias	1/22/2016 3:03 PM

1 / 18

36	Olivia Osborne	1/22/2016 2:54 PM
37	Adriana Keefe	1/22/2016 2:46 PM
38	Ashley Osgood	1/22/2016 2:44 PM
39	Alicia Rosa	1/22/2016 2:42 PM
40	Kevin Willett	1/22/2016 2:40 PM

Q2 School:

Answered: 40   Skipped: 0

#	Responses	Date
1	Lynn: Thurgood Marhall Middle School	1/28/2016 11:12 AM
2	Lynn: Marshall Middle School	1/28/2016 10:43 AM
3	Lynn: Marshall	1/28/2016 10:41 AM
4	Lynn: Breed Middle School	1/28/2016 10:37 AM
5	Lynn: TMMS	1/28/2016 10:35 AM
6	Chelsea: WSTA	1/25/2016 10:06 AM
7	Chelsea: WSTA	1/25/2016 10:04 AM
8	Chelsea: WSTA	1/25/2016 9:47 AM
9	Chelsea: Eugene Wright Science and technology academy	1/25/2016 9:44 AM
10	Chelsea: WSTA	1/25/2016 9:38 AM
11	Chelsea: WSTA	1/25/2016 9:32 AM
12	Everett: Lafayette School	1/25/2016 9:29 AM
13	Everett: Laffayette School	1/25/2016 9:27 AM
14	Everett: Lafayette	1/25/2016 9:24 AM
15	Everett: Lafayette	1/25/2016 9:22 AM
16	Malden: Ferryway	1/22/2016 3:50 PM
17	Malden: Ferrway School	1/22/2016 3:49 PM
18	Malden: Ferrway	1/22/2016 3:47 PM
19	Malden: Ferrway	1/22/2016 3:45 PM
20	Malden: Ferryway	1/22/2016 3:40 PM
21	Malden: Ferryway	1/22/2016 3:39 PM
22	Malden: Ferryway School	1/22/2016 3:36 PM
23	Malden: Ferryway School	1/22/2016 3:35 PM
24	Somerville: Argenziano	1/22/2016 3:33 PM
25	Somerville: Argenziano	1/22/2016 3:29 PM
26	Somerville: Argenziano School at Lincoln Park	1/22/2016 3:27 PM
27	Somerville: Argenziano School at Lincon Park	1/22/2016 3:24 PM
28	Somerville: Argenziano	1/22/2016 3:21 PM
29	Somerville: Argenziano	1/22/2016 3:18 PM
30	Somerville: Argenziano	1/22/2016 3:15 PM

31	Revere: Susan B. Anthony	1/22/2016 3:12 PM
32	Revere: SBA	1/22/2016 3:09 PM
33	Revere: SBA	1/22/2016 3:07 PM
34	Revere: SBA	1/22/2016 3:06 PM
35	Revere: Susan B. Anthony	1/22/2016 3:03 PM
36	Revere: SBA	1/22/2016 2:54 PM
37	Revere: Susan B. Anthony	1/22/2016 2:46 PM
38	Revere: SBA Middle School	1/22/2016 2:44 PM
39	Revere: SBA	1/22/2016 2:42 PM
40	Revere: SBA	1/22/2016 2:40 PM

Q3 Below are sentences about you. Please circle one and tell us how much you agree or disagree:
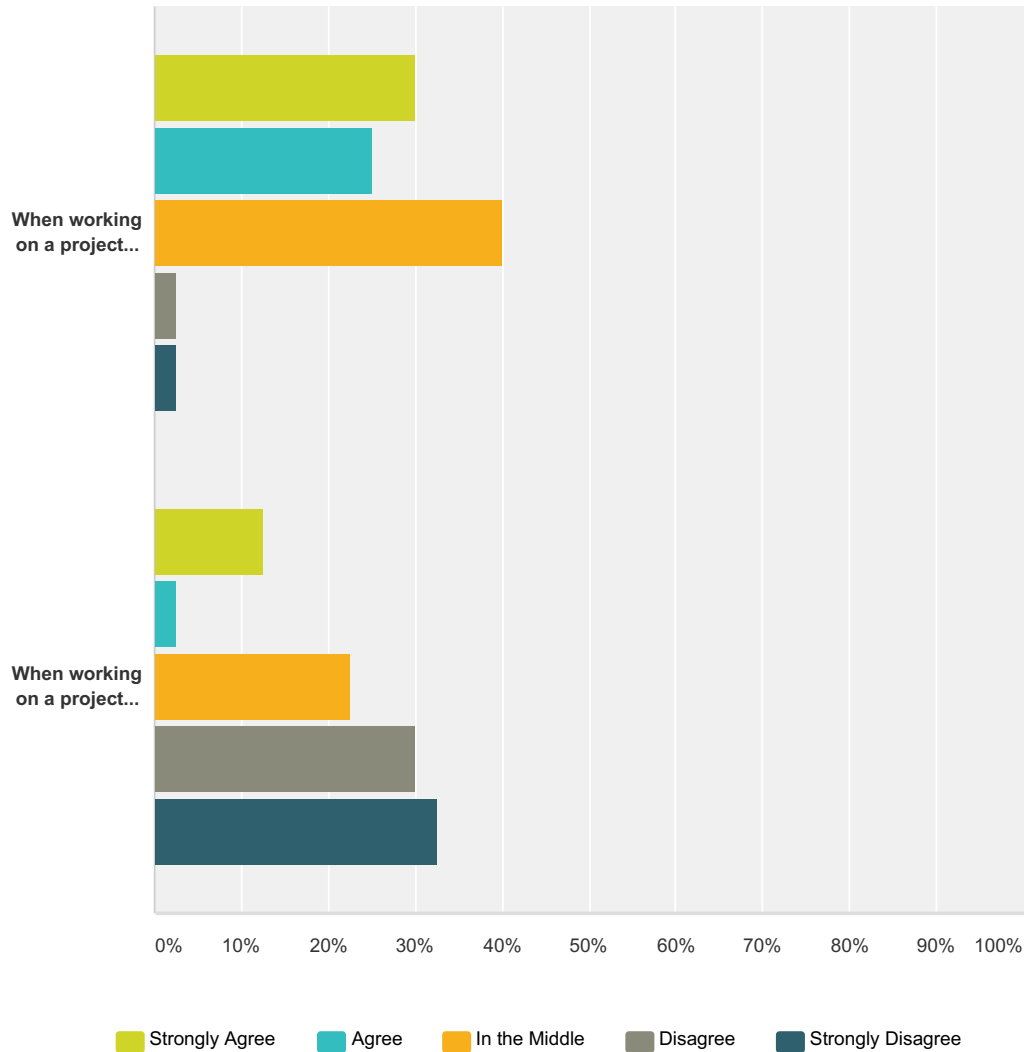
Answered: 40   Skipped: 0
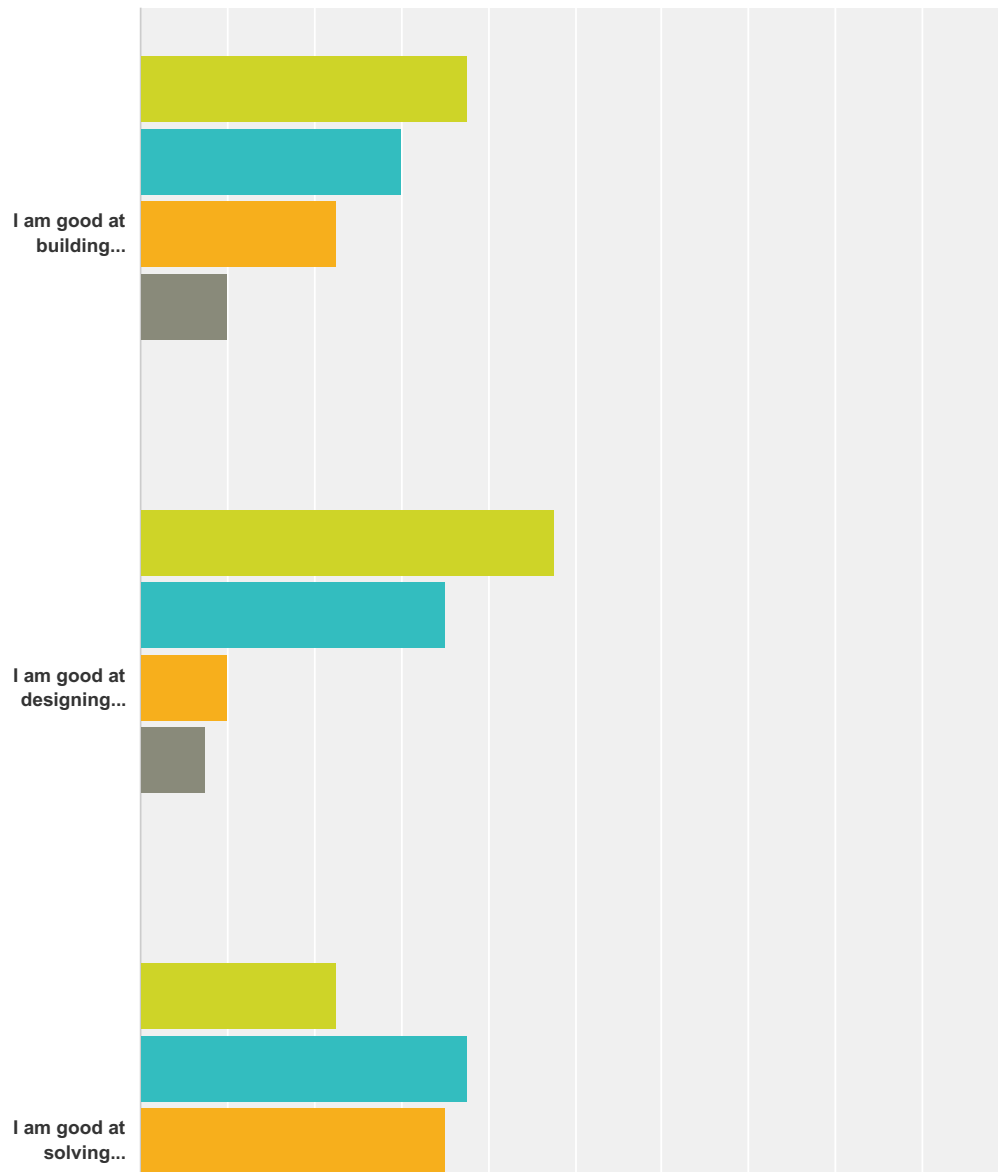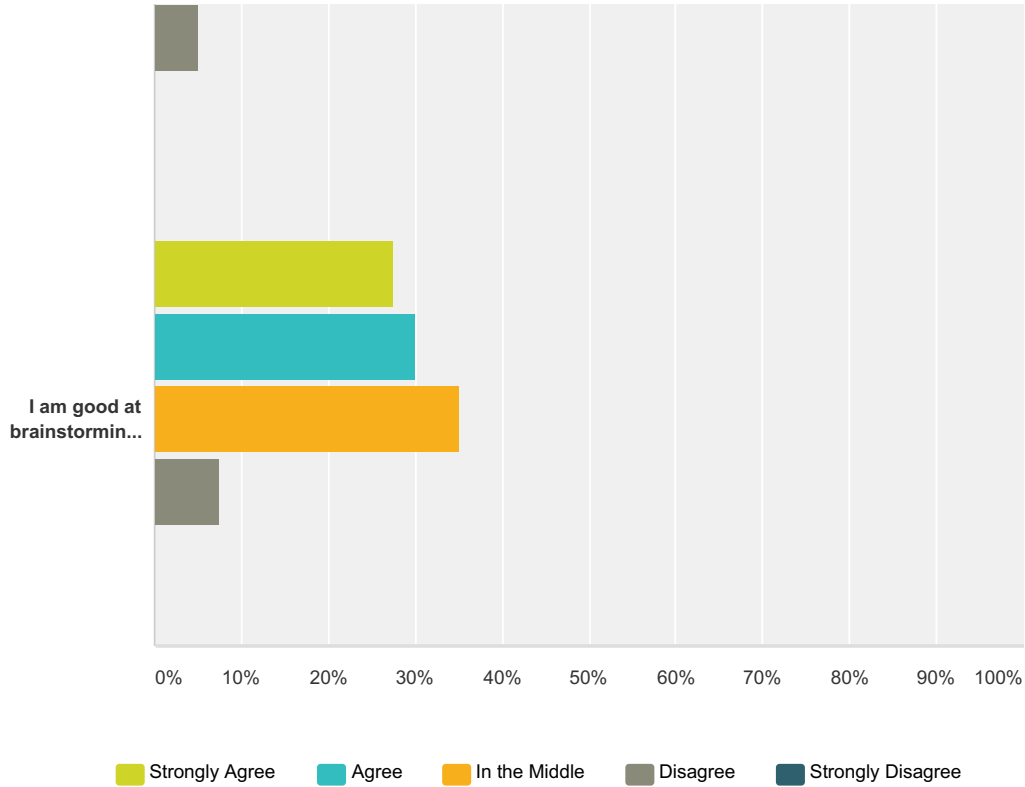
Strongly Agree   Agree   In the Middle   Disagree   Strongly Disagree

	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
I am good at building things:	37.50% 15	30.00% 12	22.50% 9	10.00% 4	0.00% 0	40
I am good at designing things:	47.50% 19	35.00% 14	10.00% 4	7.50% 3	0.00% 0	40
I am good at solving problems:	22.50% 9	37.50% 15	35.00% 14	5.00% 2	0.00% 0	40
I am good at brainstorming (thinking of ideas):	27.50% 11	30.00% 12	35.00% 14	7.50% 3	0.00% 0	40

Q4 Please tell us how much you agree or disagree with each sentence below:

Answered: 40   Skipped: 0

	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
When working on a project it's better to work with a team of people than by myself.	**30.00%** 12	**25.00%** 10	**40.00%** 16	**2.50%** 1	**2.50%** 1	40
When working on a project it's better to work with people who are like me than to work with people who are like me than to work with people who are different (different backgrounds, gender, age, race, disability, where they live).	**12.50%** 5	**2.50%** 1	**22.50%** 9	**30.00%** 12	**32.50%** 13	40

Q5 Carlos is a civil engineer for a company hired by the city to design a better system for growing enough food (vegetables and protein) within its city limits to feed all their citizens. His challenge is to develop a productive and sustainable urban farming system to provide enough food for everyone within the city. Please describe the steps in the design process that Carlos would follow to meet this challenge?

FY'16 Future City Student Pre Survey

#	Responses	Date
1	1. Brainstorm	1/28/2016 11:12 AM
2	It is the future of his city	1/28/2016 10:43 AM
3	Dejar mensajes en las casa para que las personas lo sepan.	1/28/2016 10:41 AM
4	The design, place, measurments	1/28/2016 10:35 AM
5	he would first make blue prints then start a foundation and build.	1/25/2016 10:06 AM
6	1. Identify the problem to be solved 2. Research 3. Brainstorm 4. Choose the best solution 5. Implement your solution 6. Test and Evaluate the solution	1/25/2016 10:04 AM
7	1) identify the problem to be solved 2) Gather information to help solve the problem 3) Develop altrnative solutions 4) choose optimal solutions 5) implement your solution 6) test and Evalutate the solution	1/25/2016 9:47 AM
8	1. Find space to build the waste management 2. figure out how to bild it 3. find out how much it costs 4. Think of how u want to build it 5. Build it but take it step by step before u try something or else u might make a mistake	1/25/2016 9:44 AM
9	He can start by brainstorming his ideas and then plan out all his ideas on a paper and draw his place.	1/25/2016 9:38 AM
10	I think first is an essay descripency what he did why he did that	1/25/2016 9:32 AM
11	Brainstorm ideas, create a model of system address problems, create actual system. Repeat steps as needed to fix problems.	1/25/2016 9:29 AM
12	He needs to see the drawing and the materials he made.	1/25/2016 9:27 AM
13	Design Process: find the problem, brainstorm it, create ideas that will help him with his design, ask the team's members for help, test it out.	1/25/2016 9:24 AM
14	1. Do research 2. Plan it 3. get material 4. design it 5. build it 6. test it 7. repeat if fail	1/25/2016 9:22 AM
15	1. get details 2. Plan 3. Build 4. Done?	1/22/2016 3:36 PM
16	1. Define the problem 2. Research 3. Build a prototype 4. test 5. Discuss 6. Rebuild 7. Test again	1/22/2016 3:33 PM
17	He would need to know how big the space is. Then he would have to figure out where he would pout the waste management places.	1/22/2016 3:29 PM
18	Define the problem, Research, develop multiple solutions, choose best solution, construct prototype, test prototype, evaluate the test, make it better, construct new and better design, test, repeat designing, testing and evaluating.	1/22/2016 3:27 PM
19	First he would have to state the problem, generate ideas, select solution, build them, evaluate, present results	1/22/2016 3:24 PM
20	Define the problem --> research --> think of possible solutions --> find the best one --> build --> test --> redisign	1/22/2016 3:21 PM
21	First research ways to solve the problem. Then get information to design. Then design a small model see if it works, if it doesn't, try to build again to see if it solves the problem.	1/22/2016 3:18 PM
22	Research Problem Rough Sketch 1st draft Fixing problems (repeat for as long as needed) Construct	1/22/2016 3:15 PM
23	brainstorm the idea draw it write it down build it	1/22/2016 3:12 PM
24	Problem Plan Design Build evaluate redesign	1/22/2016 3:09 PM
25	1) notice problem 2) Brainstorm 3) build 4) reflect 5) redesign	1/22/2016 3:07 PM
26	1. A question / main idea 2. Information / Resources 3. Make an idea 4. Build a prototype 5. Test it and observe it 6. Look back at them 7. Build a new/better one	1/22/2016 3:06 PM
27	Step 1: would have to make trash cans and recycling bins Step 2: He would have to get people to use the recycling bin more than the trash. Step 3: build a community were everyone is happy Step 4: And accomplish the waste management.	1/22/2016 3:03 PM
28	Scientific Method	1/22/2016 2:54 PM
29	Plan / Hypothosis / Create / Redesign	1/22/2016 2:46 PM
30	I don't know	1/22/2016 2:42 PM

Q6 Name one thing an engineer might have designed that is an important part of your life.

Answered: 38   Skipped: 2

#	Responses	Date
1	About everything...	1/28/2016 11:12 AM
2	cars, and airplane, a phone, i pad	1/28/2016 10:43 AM
3	Casas	1/28/2016 10:41 AM
4	A phone	1/28/2016 10:37 AM
5	Logo	1/28/2016 10:35 AM
6	a tv (electronics)	1/25/2016 10:06 AM
7	Hospitals	1/25/2016 9:44 AM
8	Something importing is a car	1/25/2016 9:38 AM
9	a family	1/25/2016 9:32 AM
10	Plumbing gives access to clean water for cooking, showering and toilets.	1/25/2016 9:29 AM
11	Christ Redeemer	1/25/2016 9:27 AM
12	My house.	1/25/2016 9:24 AM
13	toilet	1/25/2016 9:22 AM
14	cell phone, car	1/22/2016 3:50 PM
15	Phone	1/22/2016 3:49 PM
16	Fridge	1/22/2016 3:47 PM
17	My house	1/22/2016 3:45 PM
18	Electronics	1/22/2016 3:40 PM
19	my computers or any thecnology	1/22/2016 3:39 PM
20	Bathrooms	1/22/2016 3:36 PM
21	electronics	1/22/2016 3:35 PM
22	water filters	1/22/2016 3:33 PM
23	My phone	1/22/2016 3:29 PM
24	a cell phone	1/22/2016 3:27 PM
25	my glasses without them I cant see clearly	1/22/2016 3:24 PM
26	A smartphone	1/22/2016 3:21 PM
27	electronics; phone, iPad, laptops, computers, T.V., etc.	1/22/2016 3:18 PM
28	Electronics	1/22/2016 3:15 PM
29	clock	1/22/2016 3:12 PM
30	pencil	1/22/2016 3:09 PM
31	iphone	1/22/2016 3:07 PM
32	Phones	1/22/2016 3:06 PM
33	My I Pad and phone	1/22/2016 3:03 PM

34	Sink	1/22/2016 2:54 PM
35	Power plants	1/22/2016 2:46 PM
36	A fridge and a microwave	1/22/2016 2:44 PM
37	IDK	1/22/2016 2:42 PM
38	my phone	1/22/2016 2:40 PM

Q7 Please tell us how much you agree or disagree with each sentence below:
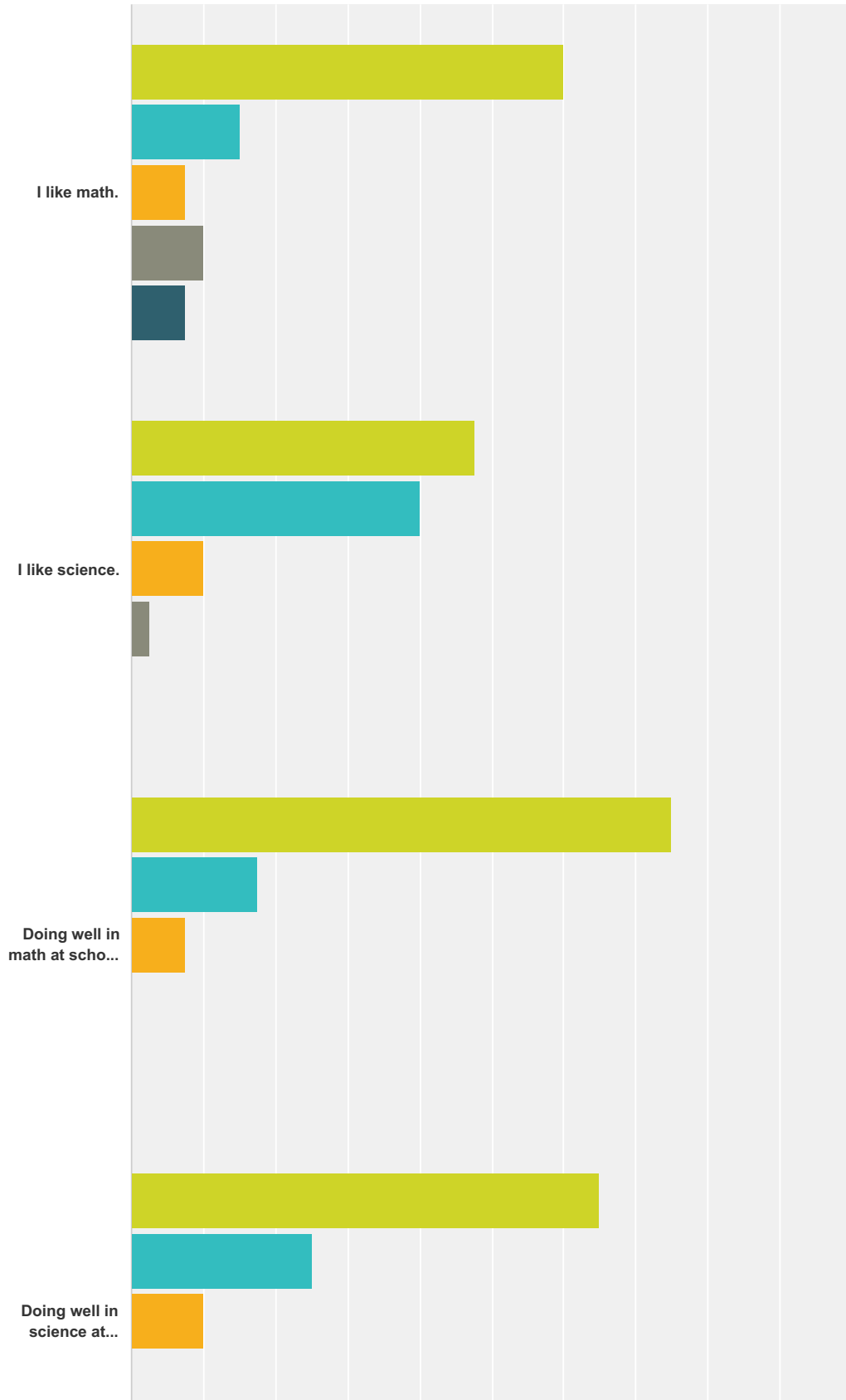
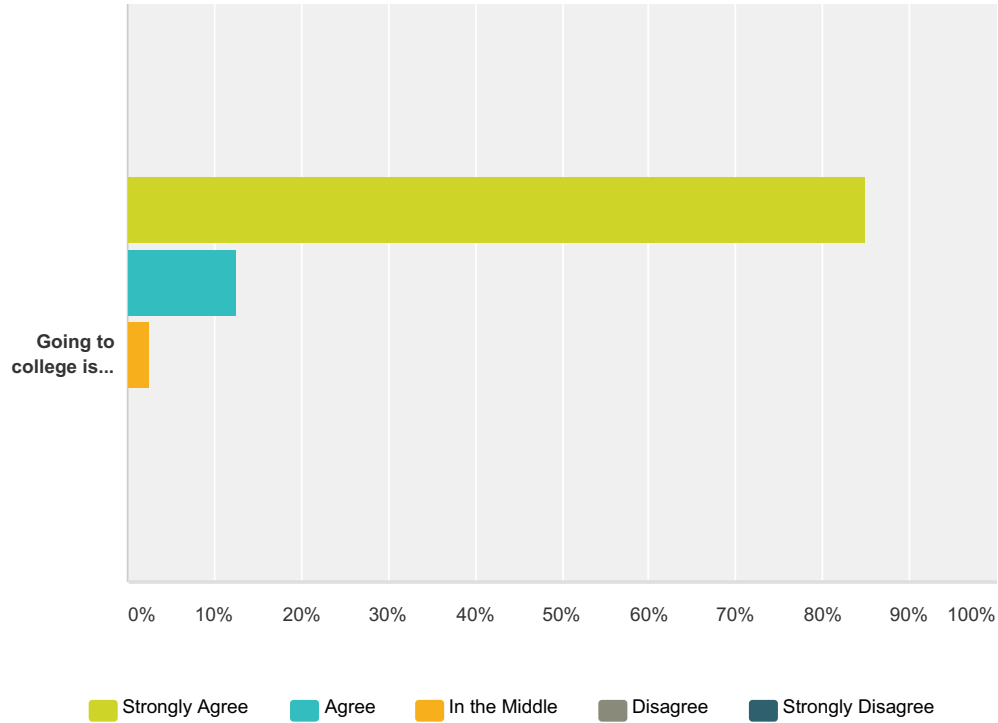Answered: 40   Skipped: 0

FY'16 Future City Student Pre Survey

Legend: Strongly Agree, Agree, In the Middle, Disagree, Strongly Disagree
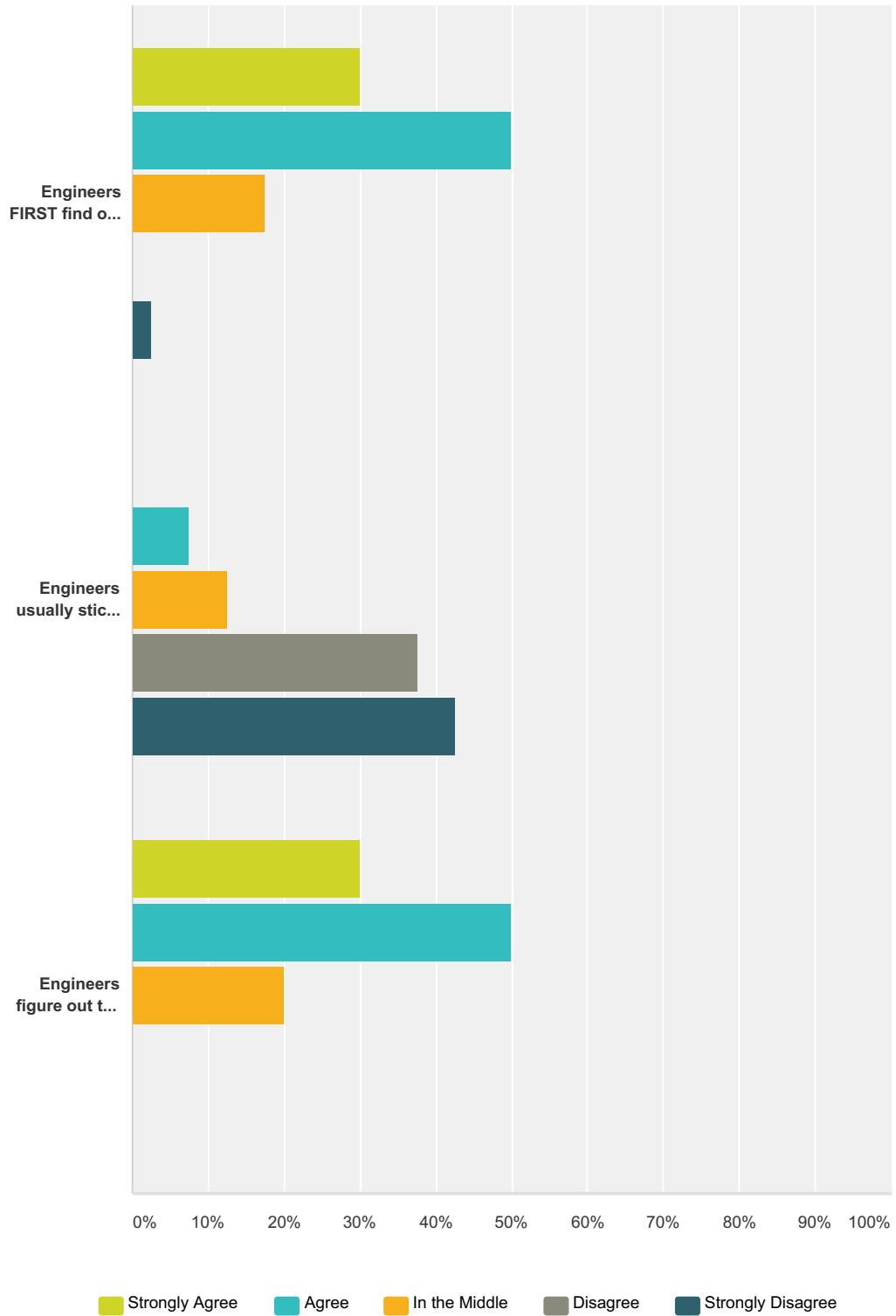
	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
Engineers FIRST find out what people need and THEN they design and make things to fill those needs.	**30.00%** 12	**50.00%** 20	**17.50%** 7	**0.00%** 0	**2.50%** 1	40
Engineers usually stick with one idea, rather than trying out lots of possible ideas.	**0.00%** 0	**7.50%** 3	**12.50%** 5	**37.50%** 15	**42.50%** 17	40
Engineers figure out the best materials to use and how to turn them into things we use every day.	**30.00%** 12	**50.00%** 20	**20.00%** 8	**0.00%** 0	**0.00%** 0	40

Q8 Please tell us how much you agree or disagree with each sentence below:

Answered: 40   Skipped: 0

	Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree	Total
I like math.	**60.00%** 24	**15.00%** 6	**7.50%** 3	**10.00%** 4	**7.50%** 3	40
I like science.	**47.50%** 19	**40.00%** 16	**10.00%** 4	**2.50%** 1	**0.00%** 0	40
Doing well in math at school is important.	**75.00%** 30	**17.50%** 7	**7.50%** 3	**0.00%** 0	**0.00%** 0	40
Doing well in science at school is important.	**65.00%** 26	**25.00%** 10	**10.00%** 4	**0.00%** 0	**0.00%** 0	40
Going to college is important to me.	**85.00%** 34	**12.50%** 5	**2.50%** 1	**0.00%** 0	**0.00%** 0	40

Q9 What made you decide to join Future City?

Answered: 40   Skipped: 0

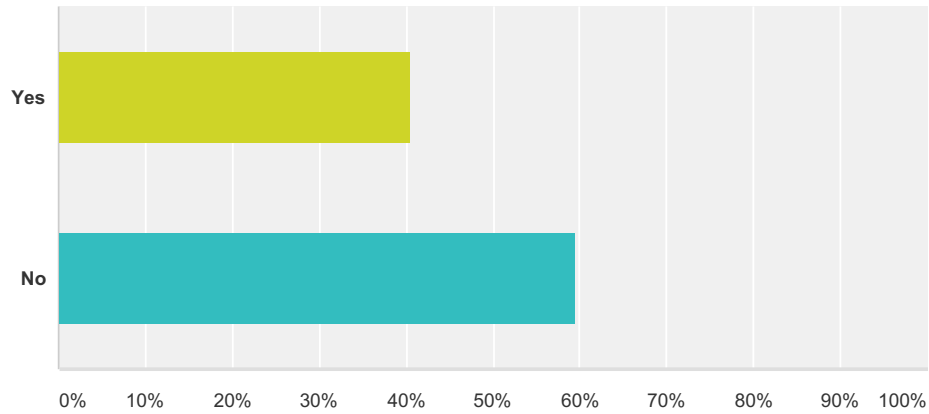| #	Responses	Date
1	I think it would be fun	1/28/2016 11:12 AM
2	bulting and deigning things	1/28/2016 10:43 AM
3	por que lo vi interesante.	1/28/2016 10:41 AM
4	It sounded educational and I'm good at building things.	1/28/2016 10:37 AM
5	Ann is in it	1/28/2016 10:35 AM
6	well the point where just make our own city	1/25/2016 10:06 AM
7	I did this last year and it was fun so I	1/25/2016 10:04 AM
8	I liked the idea of making a city in the future	1/25/2016 9:47 AM

9	I wanted to help our community grow	1/25/2016 9:44 AM
10	I want to build city's	1/25/2016 9:38 AM
11	the art and the building	1/25/2016 9:32 AM
12	I wanted to try it out and see what it's about.	1/25/2016 9:29 AM
13	It would be interesting	1/25/2016 9:27 AM
14	It's my last year before going to high school so I wanted to do something different. I wanted to try something new.	1/25/2016 9:24 AM
15	I needed something to do and not play games all day.	1/25/2016 9:22 AM
16	My friend angelina Prum	1/22/2016 3:50 PM
17	my uncle	1/22/2016 3:49 PM
18	My friend Angelinn Prum	1/22/2016 3:47 PM
19	It sounded like something interesting	1/22/2016 3:45 PM
20	I wanted learn more about engineering, and visit places.	1/22/2016 3:40 PM
21	I love computer proggraming and I am in the learning of HTML	1/22/2016 3:39 PM
22	Being with my friend	1/22/2016 3:36 PM
23	To learn about engineering	1/22/2016 3:35 PM
24	I did it last year and I had a blast.	1/22/2016 3:33 PM
25	I like to disign things.	1/22/2016 3:29 PM
26	My friend was in it last year and she said it was really fun so I decided to try it out this year.	1/22/2016 3:27 PM
27	I like the concept and how it chalanges you to think.	1/22/2016 3:24 PM
28	I heard that buliding the model is fun	1/22/2016 3:21 PM
29	I decided to join Future City because I love science and more specifically, engineering! I thought it looked interesting and exciting. Also I want to be an engineer when I grow up.	1/22/2016 3:18 PM
30	I like science and I thought it would be fun.	1/22/2016 3:15 PM
31	I like trying new things if I don't like it I leave if I do I stay and right now I'm staying.	1/22/2016 3:12 PM
32	because i thougt it would be fun	1/22/2016 3:09 PM
33	I thought the club seemed cool.	1/22/2016 3:07 PM
34	I think it will be fun, and how cool it could be.	1/22/2016 3:06 PM
35	Well it sounds cool and you get to use technology and build a city.	1/22/2016 3:03 PM
36	Ashley	1/22/2016 2:54 PM
37	I like designing things and my friends did it last year and said I should join.	1/22/2016 2:46 PM
38	I like designing places	1/22/2016 2:44 PM
39	Because it sounds cool	1/22/2016 2:42 PM
40	I was interested last year so I rejoined this year	1/22/2016 2:40 PM

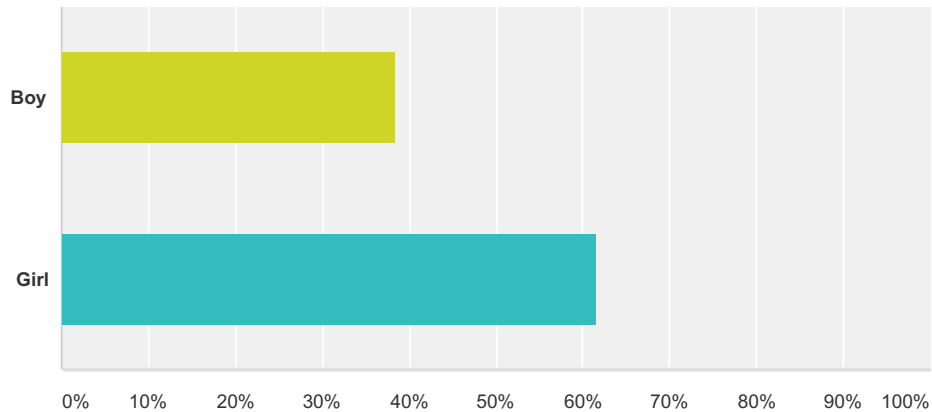## Q10 Are you related to an engineer?

Answered: 37   Skipped: 3

Answer Choices	Responses	
Yes	**40.54%**	15
No	**59.46%**	22
Total		37

Q11 Are you a:

Answered: 39   Skipped: 1

Answer Choices	Responses	
Boy	**38.46%**	15
Girl	**61.54%**	24
Total		39

Q12 How old are you?

Answered: 39   Skipped: 1

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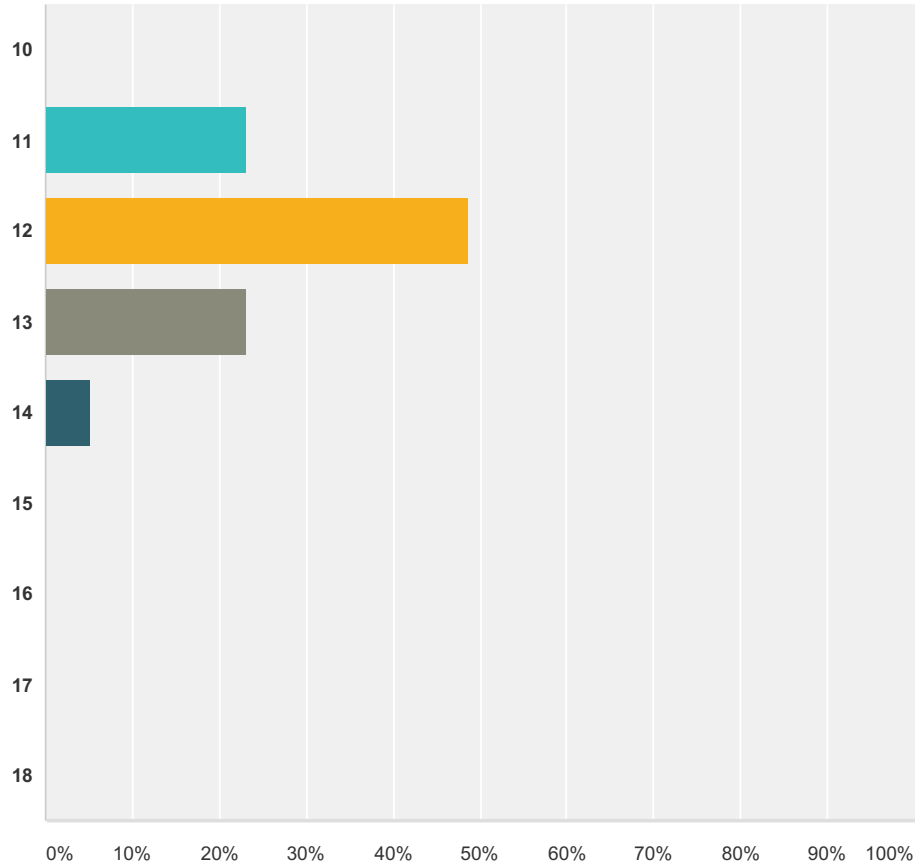
Answer Choices	Responses	
10	0.00%	0
11	23.08%	9
12	48.72%	19
13	23.08%	9
14	5.13%	2
15	0.00%	0
16	0.00%	0
17	0.00%	0
18	0.00%	0
Total		39

Q13 What grade are you in?

Answered: 39   Skipped: 1
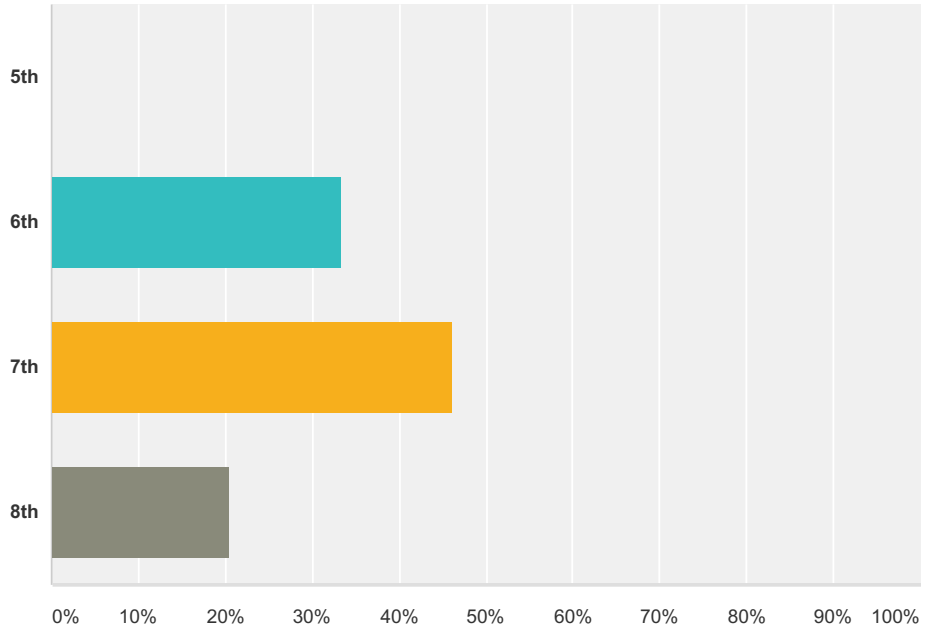
Answer Choices	Responses	
5th	**0.00%**	0
6th	**33.33%**	13
7th	**46.15%**	18
8th	**20.51%**	8
Total		39

Q14 Which of the following best descries your heritage? Please choose all that apply. You can choose not to reply.

Answered: 39   Skipped: 1

FY'16 Future City Student Pre Survey
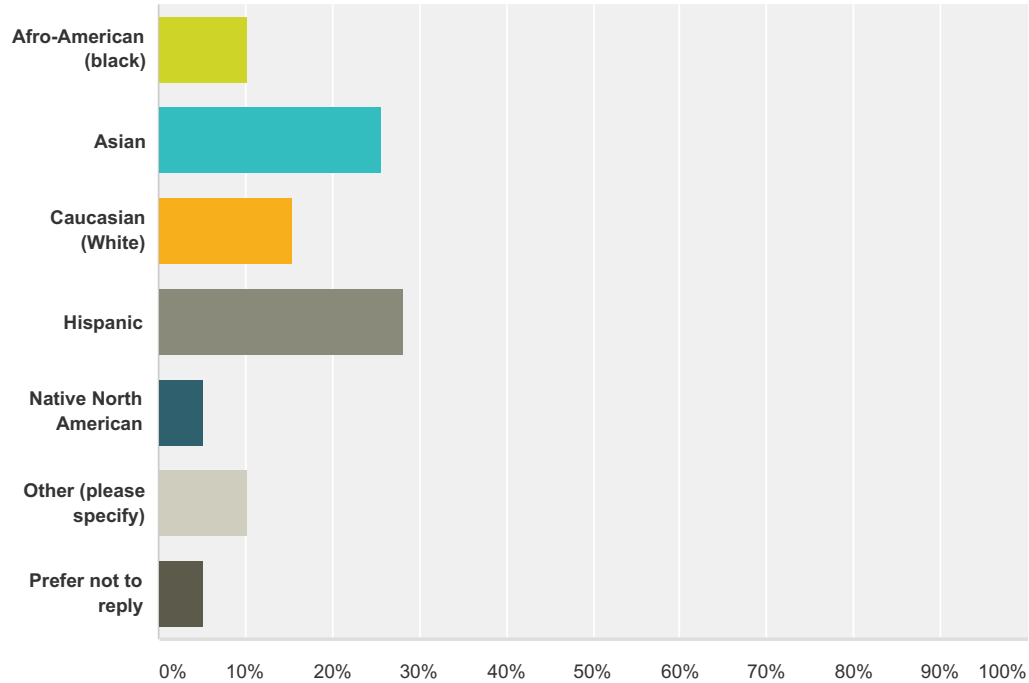
Answer Choices	Responses	
Afro-American (black)	10.26%	4
Asian	25.64%	10
Caucasian (White)	15.38%	6
Hispanic	28.21%	11
Native North American	5.13%	2
Other (please specify)	10.26%	4
Prefer not to reply	5.13%	2
Total		39

#	Other (please specify)	Date
1	white	1/28/2016 10:43 AM
2	Brazilian	1/25/2016 9:22 AM
3	Haitian	1/22/2016 3:40 PM
4	Arabic American	1/22/2016 3:24 PM
5	caucasian, other	1/22/2016 3:12 PM
6	cathollic	1/22/2016 3:06 PM
7	and caucasion	1/22/2016 2:46 PM

Q15 What do you want to be when you grow up?

Answered: 40   Skipped: 0

FY'16 Future City Student Pre Survey

#	Responses	Date
1	An animator or an artist.	1/28/2016 11:12 AM
2	Fashion Designer	1/28/2016 10:43 AM
3	Megusta la ingenieria y la arguitectura.	1/28/2016 10:41 AM
4	I want to be a food scientist	1/28/2016 10:37 AM
5	Artist	1/28/2016 10:35 AM
6	a engineer, constructor, or doctor	1/25/2016 10:06 AM
7	I want to be an veterinarian.	1/25/2016 10:04 AM
8	vetirneran	1/25/2016 9:47 AM
9	A solider in the Army.	1/25/2016 9:44 AM
10	Not sure	1/25/2016 9:38 AM
11	Police	1/25/2016 9:32 AM
12	Computer engineer or developer.	1/25/2016 9:29 AM
13	Game designer	1/25/2016 9:27 AM
14	A doctor or a scientist.	1/25/2016 9:24 AM
15	Something with computers	1/25/2016 9:22 AM
16	I don't know	1/22/2016 3:50 PM
17	I want to be a bio-medical engineer	1/22/2016 3:49 PM
18	Math teacher	1/22/2016 3:47 PM
19	?	1/22/2016 3:45 PM
20	n/a	1/22/2016 3:40 PM
21	A computer proggramer making apps or tec design	1/22/2016 3:39 PM
22	Astrounts	1/22/2016 3:36 PM
23	Doctor, surgant life	1/22/2016 3:35 PM
24	A video same designer	1/22/2016 3:33 PM
25	A sfx makeup artist.	1/22/2016 3:29 PM
26	I don't know. Possibly an engineer, lawyer, or scientist.	1/22/2016 3:27 PM
27	An engineer, lawyer, or doctor. I want to make a impact on the world. I want to be famous for my achivements like Malala or Tawakkul Iman.	1/22/2016 3:24 PM
28	A lawyer or doctor.	1/22/2016 3:21 PM
29	-technical or software engineer -engineer (building things to solve problems) -writer	1/22/2016 3:18 PM
30	A writer or author or science related	1/22/2016 3:15 PM
31	I want to be an engineer who is also the president of the USA after presidency science teacher at RHS.	1/22/2016 3:12 PM
32	an engineer	1/22/2016 3:09 PM
33	I don't know	1/22/2016 3:07 PM
34	A pilot for the army.	1/22/2016 3:06 PM
35	I want to be a doctor to help people to be healthy.	1/22/2016 3:03 PM
36	Trauma Surgen, Interier designer	1/22/2016 2:54 PM
37	teacher or building designer	1/22/2016 2:46 PM
38	An Artist, Author, or Interior Designer	1/22/2016 2:44 PM
39	a gymnast/vet	1/22/2016 2:42 PM

| 40 | n/a | 1/22/2016 2:40 PM |