LEARN
SCIENCE & MATH CLUB

ANNUAL REPORT 6.15 TO 5.16

LETTER FROM THE PRESIDENT

Thanks to the wonderful mentors, volunteers and donors who make our programs possible, 2015-2016 was another wonderful year. Together, these wonderful people made it possible for LEARN's kids to:

- **Attend Fun, Hands-On Classes:**
  - **Explore FIRST LEGO League Junior – Waste Wise** – A hands-on intensive for 5 to 9 year-old kids in simple and compound machines applied to designing solutions for the trash cycle.
  - **Explore FIRST LEGO League Robotics – Trash Trek** – A hands-on intensive in robot building and programming for 9 to 14 year-old kids.
  - **The FLL Seminars** – A series of seminars for FLL teams and coaches to prepare them for the project, programming and structural engineering aspects of FLL competition.
  - **The Toy Makers Workshop** – An applied physics class for 5 to 9 year olds that introduces kids to science as they make a variety of different toys.
  - **CSI-KC: Solving Crimes with Forensic Science** – A class for 9 to 14 year olds that challenges them to solve a series of mysteries using a variety of forensic techniques.
  - **The Mini-Bot Build** – Another hands-on intensive in robot building and programming, this time for high school kids.

1. A Young Toy Maker with Her Incredible Balancing Toy

- **Participate in One-Day Events:**
  - **Engineering Extravaganza** – A fun-filled day of learning disguised as play as kids travel from station-to-station designing their own solutions to our engineering challenges!
  - **City Imagineerium** – A day spent building the kids' City of Their Dreams.
- **Meet STEM Experts through TeamXchange** – A cross-pollination program, designed to bring together some of the 30,000 FIRST teams and other technical types from around the world to share their knowledge of robotics and work together on each year's challenge. This year our robotics and invention teams traveled to Arkansas, Louisiana and Florida.
- **Dive deep into STEM in Summer Camps**:
  - **Robo Camps 1 & 2** – Two mini-competitions in FIRST LEGO League robotics.
  - **The Toy Makers Workshop** – A camp on the physics and engineering of toys throughout history for 5 to 9 year-old kids.
  - **CSI-KC: Solving Crimes with Forensic Science** –A camp focused on solving a series of mysteries, using forensic techniques.

- **Get a taste of STEM in Community Events** – Maker Faire Library Science Nights and School Science Nights.

1. **Members of the Techie Peppers, Celebrating Their Win**

In addition, we continued to field robotics teams. Our FIRST Tech Challenge (FTC) robotics team, The Red Hot Techie Peppers finished their sixth season with another bang. They won numerous first place awards at the two regional qualifiers they attended and advanced to the MO State Championship where they posted some of the highest scores of the day and earned a spot at the North East Super Regional. While achieving all these things, the team mentored our younger robotics teams, served as counselors at our summer camps and participated in TeamXchange.

Every one of these programs was a blazing success thanks to the wonderful kids who made us smile and the terrific mentors and sponsors who brought smiles to their faces. Read on to learn more about what the kids did!

Thanks for another wonderful year!

Rebecca Kidwell, President
LEARN Science & Math Club

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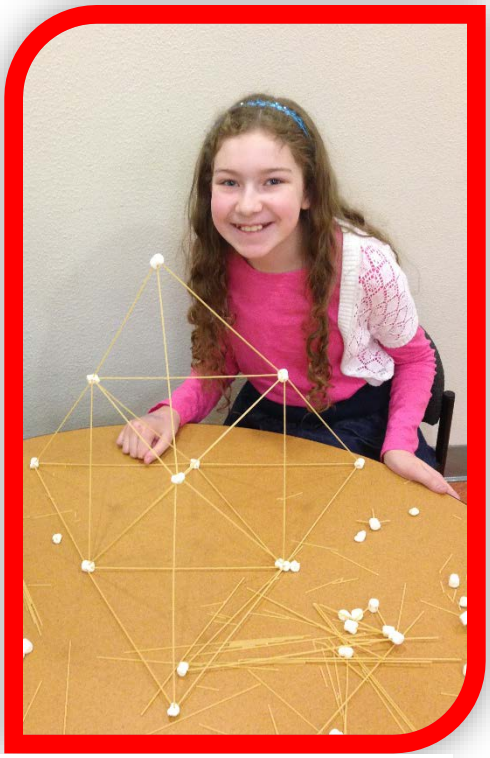
OUR PROGRAMS

LEARN Science & Math Club is a 501(c)3 non-profit. Since 2004, we have been providing kids from the Kansas City metropolitan area with rich science and math experiences through the use of robotics, engineering and programming projects and laboratory experiments. We actively foster the collaboration, organization and communication skills necessary to work and play together.

At LEARN, we know there is a natural scientist inside every kid, and our mission is to foster those native abilities. Whether they plan to become lawyers, chefs or physicists, kids should feel bold and confident in a technical world; we work hard to make that possible. We use robotics programs such as the FIRST LEGO League and FIRST Tech Challenge as well as invention programs such as the Lemelson-MIT InvenTeam program as learning platforms as well as many home-grown curricula. Below, you will find a summary of our 2015 to 2016 programs.



2. A Toy Maker with Her Spaghetti Tower

FIRST Tech Challenge

In 2010, LEARN Science & Math Club launched a high school robotics program. Our rookie team, The Red Hot Techie Peppers, had a bang up first year – winning the 1st Place Connect Award and the 2nd Place Inspire Award at the Southeast Missouri State Qualifier and the 1st Place Motivate Award at the Missouri State Championship. Every year since, the triumphs have continued as the team earned top honors at nearly every tournament they have attended.

***3.* The Red Hot Techie Peppers**

If you've not heard of FIRST Robotics, you've missed out on one of the coolest, hands-on learning platforms for building math and science skills. FIRST makes computer science and engineering "hip" by building a sports-like, team-based competition around robotics. Hundreds of thousands of kids from around the world get together and build robots that solve weird, exciting and difficult challenges every year.

5. **A Red Hot Techie Pepper Contemplates The Meaning of the Robot Universe**

When

The high school team met fifteen to twenty hours per week during the competition season, and they met ten hours per week in the off-season.

For Whom

Kids do not have to be super-geeks to get involved. If they are interested in business, graphic design, marketing, accounting, computer programming or engineering, we have got something for them! The FIRST Tech Challenge program is for kids 13 to 18 years of age.

Fall Classes

This fall was filled with fun! LEARN offered three programs for kids from 5 to 14 years of age: Explore FLL Jr.'s Waste Wise, Explore FLL Robotics – Trash Trek and The FLL Seminars.

6. Our Waste Wise Warriors Clean Up Brush Creek Waterway

Explore FIRST LEGO League Junior's Waste Wise

This fall, it was time to dumpster dive! We learned all about the life, times and travels of Trevor McTrash. Where does he go? What happens to him along the way, and how long does he live? In the process, we identified ways to avoid making trash and ways to turn trash into treasure (or, at least, ways to avoid turning it into pollution). Better yet, after six weeks of meeting with experts, doing fun projects and taking some cool field trips, we began designing our own inventions for stopping McTrash in his tracks.

At the end of the sixth week, we dived into the study of simple and compound machines. We learned about the six types of simple machines (pulleys, levers, screws, wheels and axles, inclined planes and wedges), forces and Newton's Laws of Motion. Then, we learned how to put simple machines together to making compound or complex machines.

With this knowledge in mind, the kids designed models of their waste-preventing inventions with LEGOs. Together, we wrote a book on the trash lifecycle and on the kids' ideas for reducing, reusing and recycling waste. On the last day, the kids presented their work to family and friends.

Explore FIRST LEGO League Robotics – Trash Trek

For kids who have to look under every hood, push every button and look behind every door, Explore FLL – Trash lit their fire! For twelve weeks, the kids built robots, solved complex puzzles, designed cool contraptions and wrote practical programs.

Better yet, parents didn't have to lift a single calculator, microchip or slide rule. The LEARN team did all the heavy lifting in engineering, science and math – while parents sat back and watched the entertainment.

4. Young Roboticists Takes Good Care of His 'Bot

The Projects

Play Team-Building Games – Solving big challenges requires great teamwork, and we foster these skills through games and a team-oriented approach to all our projects.

- **Learn How to Build Strong** – A lesson in structural engineering
- **Solve Engineering Challenges** – Putting those building lessons to work
- **Design Great Robots** – The kids learned tips and tricks for building a robot that actually works
- **Scope Out the Playing Field** – This is where the kids met soaring success or crushing defeat…not really, competition is all for fun, right?
- **Build Lots of Cool Stuff** – This is where kids got to put their mark on the robot world – adding arms, designing rams, creating the next modern marvel…
- **Navigating Effectively** – The kids wouldn't love their 'bots if they played "dead bug" on the mat; so, we showed them how to get their 'bots to jump tall buildings in a single leap…or, at least, go where they are supposed to go.
- **Take a Class in Programming 101** – A lesson in how to talk "robot"
- **Program Your 'Bots** – Putting that programming lesson to work
- **Put It All Together** - Test all that cool stuff they had been building and make it work.
- **Compete** – This is where the kids found out what their robots were made of! Parents and grandparents joined us to see what the kids had done and celebrate their success.

What the Kids Learned

In this class, kids learned about structural engineering, strategic planning, software development and robotics. The learning does not stop with STEM education, however. When four or five kids share a robot the size of a bread-box, they learn how to collaborate, communicate and work as a team.

The FLL Seminars

LEARN Science & Math Club's FLL teams have taken one or more first place awards at every FLL tournament they have attended. And, they have proudly represented the Western Missouri and Kansas FLL Region at the North American Championship and World Festival on three occasions, bringing home the 1st Place Inspiration Award two out of three times.

5. An Introduction to LEGO Mindstorm Programming

And, while we think our kids are the bee's knees, we know that every kid is wonderful. Our kids' success stems from investing a huge amount of time in FLL and developing a rich knowledge base. Not every team has the chance to make such big investments. So, we feel that it's time for us to pay forward the many wonderful experiences we have had in FLL. This year, our kids will not compete. Instead, our teams will host region-wide seminars to share what they have learned.

What the Kids Learned

- The Research Project – In this session, kids:
  - Received one-stop research – Get the inside scoop on the real-world problems from regional experts on the trash cycle and how to stop it in its tracks.
  - Learned:
    - How to pick a winning topic
    - Choose a presentation format that wows your audience
    - Create a story with all the facts, but plenty of fun
    - How to created their own props
    - And, how to put those artsy types to good use
- Strategy & Structural Engineering – In this session, kids learned how to:
  - Maximize their points
  - Streamline the number of attachments they need
  - Identify "low hanging fruit"
  - Run their missions faster
  - Radically improve their handwork
  - Build easy-on and easy-off attachments
  - Combine missions for optimal performance
  - Score high – every time, not just once in a while
- Software Development – And, in the final two sessions of the Seminars, kids discovered how to:

- Follow lines reliably and quickly
- Save time and effort by creating reusable code
- Improve the accuracy of your turns
- Get better performance with multiple sensors
- Cut time from your robot runs with code sets
- Develop advanced programming techniques

Spring Classes

This year, LEARN hosted three spring classes: The Toy Makers' Workshop for younger kids, CSI-KC: Solving Crimes with Forensic Science for middle schoolers, and The Mini-Bot Build for older kids. All three were bang-up successes.

The Toy Makers' Workshop

Toys that fly! Toys that spin! Toys that climb the walls! What could be better? A toy that kids make themselves, of course!

That's what this workshop is all about: designing and building one's own toys. In this class, kids learned about toys throughout history and across the globe. Then, they decided what makes toys fun (or not). Next, they put all that knowledge to work, designing and building the coolest toys yet. On the last day, they showed off their inventions at our Toy Maker's Faire. Then, off they went to play with all the new toys they made!

What the Kids Designed & Built

The kids made so many, many toys! Including:

- Push-Pull Toys
- Floating Toys
- Magnetic Toys
- Climbing Toys
- Launch Toys
- Balancing Toys
- Noisy Toys
- Rolling Toys
- And, More!
- Magnetic Magic
- Freaky Optics Tricks
- Chemical Potions
- Hydro-Magic
- Abnormal Physics
- Elect-Tricks

6. A Toy Maker Lobs Marshmallows with his Shooter

CSI-KC: Solving Crimes with Forensic Science

For this class, we called on all aspiring investigators. Our newly formed CSI-KC Training Center was under attack. Important files had been stolen. One of our arson investigators had gone missing. And, some of our current investigators-in-training had received death threats. Had a crime ring penetrated our security, or was this an inside job? We needed fresh, independent-minded recruits to help us uncover the plot. So, kids joined the team, cracked these mysteries and kept their fellow recruits safe while they became professional, crime-fighting sleuths.

What the Kids Learned

- Crime Scene & Eyewitness Basics
- Physical Evidence
- Trace Evidence
- Fingerprinting
- Impression Evidence
- Hairs & Fibers
- Chromatography
- Blood Evidence
- Forensic Entomology
- Forensic Anthropology
- Arson Investigation
- Accident Reconstruction
- DNA Evidence

7. An investigator-in-training runs the laser course

And, of course, we did some target practice, self-defense training and other skill-building classes to make sure the members of our other Class of 2016 CSI-KC graduates could protect and serve effectively. Their stay at the CSI-KS campus were a blend of training and crime-busting – one class training and the next class investigating crimes that tested the limits of their skills.

The Mini-Bot Build

In this class, 13 to 18 year old kids designed, built and programmed four to six mini-'bots to compete in drag races, sumo wrestling, debris collection and other challenges. This class was designed to build rapid prototyping skills in mechanical engineering and programming. Kids built and programmed new robots in just a few hours each week. Then, they put those 'bots to the test on the field to win prizes and learn a ton. The kids built with the Tetrix system and programmed in Java.

LEARN STEM Tastings

Here at LEARN, STEM Tastings are short-term programs that last for just a day or two and are designed to excited and enthuse kids so much that they want to try their hands at more complex projects and programs. Some STEM Tastings repeat every year. Others are one-time events, and the remainder rotate through our program line-up every few years. They all have something in common, though. They are whole lot of fun! Below, you will find a list of this year's events.

12. Rocket Scientists Enjoying Launch Day

Engineering Extravaganza

Kids from five to fourteen years of age joined us for a fun-filled day of learning disguised as play! Inside every child there was an engineer just waiting to…

- Design the Ultimate Crash Test Car
- Construct the Tallest Super Structures
- Create a Gliding Car
- LEGO City
- Develop a Boomerang that Flies Back to the Thrower
- Make a Desktop Catapult and Conduct a Mini War
- Invent a High-Rise Tower that Withstands Wind
- Create a Black & White Top that Makes Color Magically Appear
- And more!

The kids moved from station-to-station building cool things all day long with our fun and wacky technical mentors, or settled in and worked on a project for hours. We provided the challenges, the supplies and the engineering guidance; the kids built whatever they could dream. Their imagination is the only limit!

13. A Young Builder with His Amazing Tree House

City Imagineerium

Saturday, April 16th, kids from 5 to 18 years of age gathered to build the most amazing city! Kids from all over town were invited to spend the day building the City of Their Dreams! As kids arrived for this huge event, they "applied" for a building permit, were issued a "plot of land" and mountains of recycled materials. Then, they spent the day building their dream city.

This was the fourth City Imagineerium build. And, we found that kids create the most amazing cities - eco-friendly, beautiful and fun to live in. So, it was no surprise that the volunteer city planners, architects, builders and engineers who were on hand to help the kids say they have learned as much from the kids as the kids have learned from them. This year, as always, the kids just kept on "wow'ing" us! To watch the kids as they built their city, click on **City Imagineerium**.

8. Young Toy Maker with his Sailboat

Summer Camps

Weekdays, from June 6th thru July 1st, 9a to 4:30p, LEARN Science & Math Club hosted the coolest summer camps! This summer, we hosted four week-long camps.

The Toy Makers' Workshop

The first camp was a toy-making bonanza. The kids designed, built and tested more than a dozen toys.

Robo Camp – Smart Moves

Robo Camp puts all those physics and engineering lessons to work, challenging kids to build LEGO Mindstorm robots that can conquer the world. (Well, maybe not the world - just fourteen tough missions.)

CSI-KC: Solving Crimes in Forensic Science

For our third camp, the kids put their investigative skills to use, solving crimes and cracking mysteries with their tech skills.

15. Investigator-in-Training Studies Bite Marks

Robo Camp – Trask Trek

The last camp of summer was another session of Robo Camp – with a whole new challenge. Kids had a chance to dive deeper into the skills they learned in the previous Robo Camp. They built designed new attachments and wrote new programs. And, because the challenges get harder with each competition season, they had to really stretch those skills!

TeamXchange

As wonderful as FIRST programs are, they have one significant gap – the programs do not encourage cross-pollination between teams. The kids within a team learn from each other, but they rarely have the opportunity to observe much less share their experiences and lessons with other teams.

During the preparation period, the challenges are so intense that the kids must focus on their homework. During competition, they are so wildly busy doing their jobs, they just don't have time to observe much less interact with other teams.

To address this gap, LEARN introduced TeamXchange in 2010. We have brought together many hundreds of teams over the last three years. Our kids have hosted a German team for a month. They have also traveled to Ohio, Florida, Oklahoma, New Mexico, Arizona, Colorado, California, New York, Massachusetts, Washington D.C. and France – not to mention all over Missouri. In their travels, they have met other FIRST teams, college roboticists and professional engineers. With these fellow technical types, they have taken tours, given presentations and classes and shared tips and tricks. TeamXchange has created a revolution in knowledge-sharing amongst these kids.

We hope to expand TeamXchange in the future. If we are able to attract funding, we will:

- Build a Web site to support kids around the world. This site will:
  - Promote robotics and other tech training for primary school kids
  - Provide a forum for teams to meet and discuss their projects, questions and opportunities
  - Offer tips and ideas for working together
  - Provide resources for this year's topic
  - Encourage and support teams who want to meet in person
- Provide events for all the teams in our region. These programs will include:
  - Field trips to businesses, museums, government offices, research centers and other destinations related to the annual FFL topic
  - Guided discussions to encourage kids, coaches and mentors to explore the challenges their communities face on the topic, identify what they have in common and what's different and how they could work together to create innovative solutions and change

16. The Red Hot Techie Peppers Meet Other FIRST robotics Teams

- Region-wide training

Community Events

To extend our reach, LEARN Science & Math Club also sponsors activities at many free community events. This year was no exception. We hosted booths with lots of fun, hands-on projects at a variety of events. These included KC Maker Faire and school Science Nights.

THE RESULTS

At LEARN Science & Math Club, we operate on the assumption that kids can do extraordinary things. And, they always prove us right! Our kids:

17. Our Rock'n Robo Rabbits FLL Team with Friends at The North American Championship in San Diego, CA

Build Teams and Communicate Effectively

Our programs teach kids to:

- Work closely with other kids to analyze and solve complex, on-going challenges
- Treat others with respect, kindness and appreciation for the skills and abilities they bring to the project
- Research a topic, identify opportunities and present new ideas to professionals, government officials and the community

Build Life Skills

Our kids:

- **Develop Strong Technology Skills** – Not all of our kids want to be engineers; some want to be doctors, programmers or lawyers. All of them, however, know they benefit from being able to put technology to use. They learn sound engineering principles, strong computer, project management, mechanical and electrical engineering skills.
- **Build Business Skills** – Building and programming robots is cool, but solving real-world problems is even better. So, our team does more than compete in FIRST robotics challenges. They are launching a technology-related business. We bring in marketing, sales and accounting professionals to help them commercialize concepts like:
- **Created Script Alert** – One of our FLL teams proposed an innovative, Web-based product to prevent millions of injuries and deaths related to prescription drug dosing errors. Several members of that

team moved up to our new high school team, and they won the Lemelson-MIT InvenTeam grant to fund the prototyping of this product.

Make a Difference

Our kids have:

- Worked to reduce energy usage and pollution. They:
  - Developed a Web application that encourages people to carpool by helping them to easily catch a ride with their Facebook and My Space friends
  - Presented a proposal to the KC City Council and the Missouri State Legislature, encouraging them to implement a metro-area wide ride- and bike-sharing project
  - Built emissions-free pedal cars and displayed them at the Nelson-Atkins Museum of Art and the KC Zoo on Earth Day to demonstrate it's possible to get around town without polluting
  - Conducted a flash mob event called, "FREEZE to Save the Planet," to promote awareness of the many small things we can all do to reduce energy usage and pollution. To see a video of this event, visit FREEZE.
- Created a patented biomedical engineering product called Script Alert that could save thousands of lives each year
  - Developed two food safety product concepts:
  - One, called Food Tracker, uses RFID technology to trace foods from farm to fork, ensuring the CDC and other experts can quickly track and stop food poisoning and contamination.
  - The other, called Stick EZ, uses existing immunoassay technology in the form of a small sticker to identify foods that are contaminated with food poisoning or pesticides.
  - Host Open Houses and Science Fairs

18. Our Shadow Knights FLL Team Presenting Sticky EZ

- Mentored Our FLL And Jr.FLL Teams – Most of our high school team members volunteer four to ten hours a week year-round to coach the younger kids in our program. This year, they led these teams to three 1st place awards.
- Hosted Summer Camps and STEM Classes – Our Club hosts three to five week-long science and math enrichment programs each year. Team members volunteer as camp counselors. These camps serve as both community outreach and a principal fundraiser for the team; last summer, they earned $9,800. Our high school team also puts on a variety of STEM classes for the community including

Circuit Board Design & Production, AutoCAD Inventor, the annual Engineering Extravaganza and Programming in Robot-C. They produce on a number of free community service events as well such as Science Night at the Kansas City Public Library and a LEGO Building Blow-Out at Makers Faire.

Achieve Big Things

Our younger teams:

- Took 1st Place awards in local and Regional competitions every year (and they've often taken home more than one award)
- Won 1st Place for the Chairman's Award – the top honor – their last two years in FLL
- Represented the Western Missouri and Kansas Region at North American Championship and at World Festival – making them one of the top 79 teams out of over 22,000 teams for the last two years. On both occasions, they finished in the top ten teams, earning the 1st Place Award for Inspiration.
- Been nominated twice and won an International Core Values Award for being one of a handful of teams from around the world that best demonstrates gracious professionalism, kindness and support for other teams

19. One of the Pepper Drive Teams Guiding their Robot to Success

Our high school teams:

- Score High – Six years ago, our rookie FTC team won the 1st place Motivate award, the 2nd place Inspire award and was nominated for the Connect award at the Southeast Missouri State Qualifier. They went on to earn the 1st Place Motivate Award at the 2012 State Championship. Since then, they have won numerous awards every season, advanced to the Missouri State Championship every year and won numerous awards there.
- Designed Exhibits for Science City – For their City Imagineerium proposal, the team won a $2,500 grant in the Burns & McDonnell's Battle of the Brains
- Developed Life-Saving Product – They won one of only fifteen MIT InvenTeam grants that were issued worldwide in 2012. Over the course of the school year, they developed a working prototype of their product, Script Alert. This biomedical engineering device tracks, guides and reports on patients' prescription medication. It has the potential to save hundreds of thousands of lives each year and was hailed as the most commercially viable and life-saving product at the Lemelson-MIT Eureka Fest in June, 2013.

- Earned Money & Win College Scholarships – The team has two financial goals – to earn all the money they need to fund their robotics program and to help kids invest in their future. They earn a stipend for their outreach and community service work as well as qualify for FIRST scholarships.

OUR TEAM

LEARN Science & Math Club is an all-volunteer organization. We owe huge thanks to our wonderful Board members, mentors, coaches and teachers for their tireless devotion to making so many opportunities possible for kids from all over the Kansas City metropolitan area and around the world. Many of our team members work twenty to forty hours per week at LEARN after putting in full days at their "real" jobs.

Our Board

We have a strong and diverse Board that provides guidance and unflagging support for our programs. Our Board includes:

- President – Rebecca Kidwell
- Vice President, Technology – David Sherrick
- Vice President, Security – Jeff Stice-Hall
- Secretary – Amanda Madrigal

Our Volunteers

LEARN simply could not function without the many people who give their time to helping kids. For some of our larger events, we have as many as fifty volunteers devoted to helping, encouraging and keeping kids safe. This is equally true of our on-going programs. Week after week, dozens of parents and professionals band together to mentor and guide our kids.

20. Volunteers from Henderson Engineers

OUR DONORS

LEARN's donors bring joy, opportunity and a life-long love of science and math to kids throughout our community. With immense gratitude, we thank all our donors for making our work possible. Some of you are individuals, and

others are large organizations. Whatever the size, your contributions are invaluable. You made so many children happy this year.

$10,000 or More

- Synthesis Solutions, Inc.

$1,000 to $10,000

- Rockhurst University
- Time Warner Cable
- Script Pro
- The United Way
- UMKC's School of Computing & Engineering
- Kohl's Cares Foundation

$500 to $1,000

- FIRST
- Garmin
- Henderson Engineers

21. Kids Enjoyed Catapulting Marshmallows across Science City at Maker Faire

HOW TO HELP

As we all know, success is expensive. Parents and kids continue to ask LEARN Science & Math Club for more – more classes, more camps, more events, more advice. While this is a wonderful situation to be in, it comes at a cost.

Over the last twelve years, LEARN has grown significantly each year. Demand has outstripped our resources. We need to buy more computers, robots and other STEM equipment to meet the need. We also need dedicated meeting space to offer more programs, more often. And, we've done all this with no paid staff. Everyone involved has volunteered their time; some Board members have routinely volunteered 20 to 40 hours per week for nine years.

To continue to grow, we will need to eventually offer some form of compensation to those who are giving full-time service. In addition, we would like to offer scholarships for those kids who can't afford LEARN's very modest fees. Currently, fees are set at or below direct costs; as a consequence, we cannot easily afford to waive fees, but many families have asked for help. Presently, when we waive fees, a Board member will step in and pay the child's costs. We would like to be able to do more.

We also need to find a permanent home. LEARN always needs computers, supplies, accounting, marketing, legal and printing services. To meet these objectives, we will need to raise over $100,000. And, our kids always need mentors. So, there are many ways you can contribute. Get involved, and make a lasting difference in kids' lives.

OUR BUDGET

For its first two years, LEARN Science & Math Club was funded largely by Kauffman Foundation grants and private donations. Since then, program income has brought in between sixty-eight and seventy-one percent of our budget. We are deeply grateful to our sponsors, donors and grantors who providing the remaining funds and make it possible for us to buy supplies and equipment for our programs.

	2015-2016 Actual	2016-2017 Projected
Income		
Contributions and Support	$11,673	$22,700
Earned Revenues	0	0
Fund-Raisers	0	0
Services	$50,602	$48,500
Total Income	**$62,275**	**$71,200**
Expenses		
Advertising	0	$500
Bank Charges	0	0
Contractor Expenses	0	0
Insurance - Corporate	$735	$735
Legal Fees	0	$0
Office/Gen. Admin. Expenses	$1,264	$500
Payroll Expenses	0	0
Postage and Delivery	0	0
Printing and Reproduction	$	$200
Professional Services fees	$750	$1,500
Salaries and Related Expenses	0	0
Rent	$2,316	$2,316
Supplies and Materials	$58,138	$58,749
Taxes	0	0
Telephone	0	0
Travel	0	0
Refund Expenses	0	0
Utilities	0	0
Web Development and Maintenance	0	0
Total Expenses	**$62,275**	**$64,500**
Net Profit/Loss - Total	**-$928**	**$6,700**

Income

From 2004 to 2014, LEARN Science & Math Club grew substantially each year. For the last two years, LEARN Science & Math Club's income was similar to the previous year. This stasis is due to lack of resources. Demand exceeds our physical capacity. We need more space, more instructors and more supplies to host more classes, camps and events. Our current partners cannot lend us any more space, provide more time or funds; their resources are tapped out. We need to find new partners or new sources of income to pay for this space.

Contributions and Support

The largest share of our income came from services fees, primarily earned through classes and camps. The second largest source of income was contributions, contributed largely by Synthesis Solutions, Time Warner Cable, The United Way and Script Pro.

Expenses

Through its history, LEARN's expenses have been largely those needed to deliver its services to the community. We have had incredibly low administrative expenses, and this year was no exception.

22. One of Our Waste Wise kids feeds the worms in her compost bin

Our largest expense categories this year were those that represent LEARN's Cost of Goods which are the funds spent to serve our kids. The expense categories included in COG are Supplies & Materials and Rent. Combined, these categories represent 96 percent of LEARN's expenses. This year, LEARN incurred a small loss due to the success of our high school robotics team. They advanced to more tournaments which increased travel, registration and robot costs.

Administrative expenses insurance, office expenses and professional services. Together, these expenses amounted to 4% of our total expenses. This administrative to production expenses ratio is so low because LEARN has operated as an all-volunteer organization throughout its history and has channeled nearly every dollar into services for kids.

2016 to 2017 Projected Budget

We have projected a 4% increase in income for next fiscal year. This decline is due to the loss of a major sponsor; as a consequence of this lost income, we will have to drop a program or two until we attract new supporters. Unfortunately, this means that we will fall short of the requests we have received for services.

Our goal remains to dramatically increase the number of programs we host over the following three years to meet demand. To do this, we will have to make some changes in our operating plan. We will seek more community support so that we can buy the equipment and find the permanent “home” we need to deliver expanded services.