

CITY OF TEMPE: STEM IN AFTERSCHOOL PROGRAMS

The City of Tempe Afterschool programs exist to create memorable childhood experiences through age-appropriate enrichment learning, in a safe and nurturing environment. Our programs run year-round in City of Tempe schools, to offer affordable care to all parents at low staff to child ratios, with DHS licensed facilities and staff. Participants can develop their cognitive, social, and physical skills through the structured activities that align directly with the school district's curriculum. To further our enrichment learning for our 2800 students we are looking to expand our Science, Technology, Engineering, and Math (STEM) programs in the City of Tempe.

History tells us that STEM industries have been the catalyst for the greatest source of positive economic impact in the United States. Our countries financial successes have been built on the science and technology behind medicine, automobiles, the race for space, and the internet. The issue currently is that 90 percent of the world's scientists and engineers are working in Asia and the World Economic forum ranks the U.S. 48th in quality of mathematics and science education. The U.S. needs professionals in STEM fields.

A national movement supporting increased STEM education for students in the U.S. is in full swing, but there is a continued need to progress the system for producing the next generation of Scientists and Engineers. Careers in STEM are difficult, technical, and many times out of the public eye. To compound these issues, there is also a gender and cultural gap in STEM fields. Educators see the life skills of hard work and dedication fading from generations of tech savvy youth who see technology as a given quick fix. Our countries technological successes have created a generation not realizing the need for continued progress in STEM or given them the tools and skills to advance in these professions.

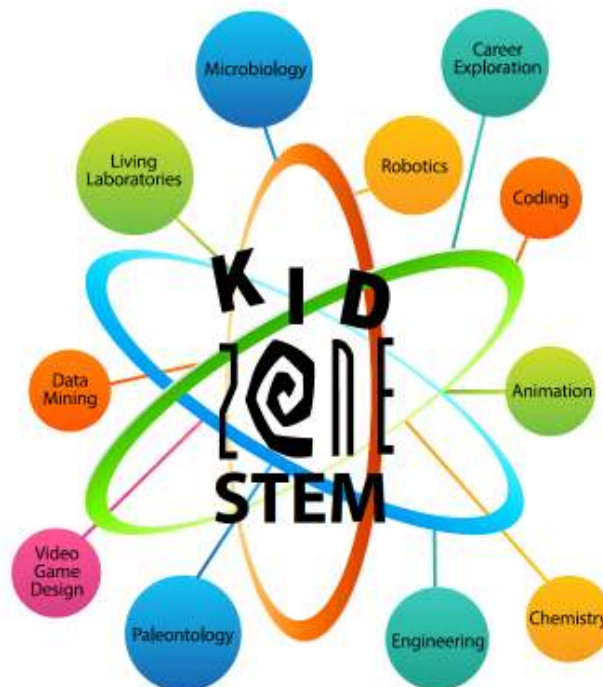
The love and fascination with wonders of STEM are fading in our youth. This STEM program seeks to revive a passion for exploration and the drive to find new and innovative ways to see the world. As afterschool professionals, we strive to build this excitement through hands-on STEM activities and character building. Children may fall away from STEM in the classroom memorizing terms and solving equations, but the goal of the Afterschool STEM program is to discover the excitement and endless possibilities that exists in the world of Science, Technology, Engineering, and Math.

City of Tempe: Afterschool STEM Program: Requested Material List

-  1. Completed application. Failure to conform to word/page count limitation could cause an application to be rejected.
-  2. A complete list of corporations and foundations that have given to the organization in the most immediate previous year and how much each has given (\$5,000.00 and above).
 - **We have received no other funding for our Afterschool STEM program**
-  3. Annual operating budget.
 - **Attached**
 - **Grant funds would be used to continue STEM based education in afterschool programs in Tempe schools.**
 - **Sustainable materials would be purchased so that items can be used at the STEM afterschool programs and also be used to bring STEM to the 2800 students at the City of Tempe Afterschool programs in the form of traveling STEM kits. This program would reach at risk children in 11 schools that are classified at Title 1 with between 50-80% of the population receiving free/reduced lunch.**
 - **City of Tempe would fund all facility and staffing, including traveling staff to bring STEM to current afterschool programs.**
-  4. A list of Board of Directors of the organization, including primary business or professional affiliation of each.
 - Shelley Hearn, Community Services Director. 480/350-8906, Shelley_Hearn@tempe.gov
 - Jill Rasmussen, Manager, Kid Zone Enrichment Program 480/350-5425, Jill_Rasmussen@tempe.gov
 - Jeremy King, Community Services Supervisor 480/350-5287 Jeremy_King@tempe.gov

Achievements from Kid Zone STEM PROGRAM:

- Creation of the first ever Kid Zone STEM summer Camp. The 9-week immersion camp expanded the STEM learning of almost 100 students.
- STEM program coordinator Jeremy King served as Arizona Ambassador to Afterschool by The Afterschool Alliance. National recognition brings Diablo STEM program in front of Local, State, and National Lawmakers.
- The City of Tempe's Lights On Afterschool Event featured a Diablo STEM OzoBots. This activity and the City of Tempe Lights On Event was supported and marketed by Arizona Center for Afterschool Excellence (AzCase) to all state afterschool programs, bringing Diablo STEM activities all over Arizona.
- Kid Zone Lights On Afterschool successfully invited lawmakers on the local, state and national level.
- Programs reached all 2800 students in the City of Tempe through creation of STEM kits and traveling instructors. Two STEM instructors traveled for more in-depth teaching.
- Implemented STEM logic model to have concrete performance measure for the STEM program.
- Continued partnership with Arizona Center for Afterschool Excellence and their Arizona STEM network <http://stem.sfaz.org/>
- Partnering with Arizona Sci-Tech and the City of Tempe to plan and implement *Geeks Night Out* where families and kids will "discover the science". The Kid Zone STEM program will be hosting a booth showcasing different bacteria's through high powered microscopes and laptops.
www.tempe.gov/Geeks
- Kid Zone STEM logo featuring the Diablo support for the program. Continued advertising campaign by the City of Tempe will inform Kid Zone families and the community.



Diablo Budget (current budget): \$30,000

Traveling STEM kits - \$6250

- Expand and Update STEM kits bringing weekly STEM to all sites
- Additional Storage needed in 2018

Technology purchases for select pilot sites and Kid Zone STEM camp- \$5000

- Laptops and Microscopes
- Tablets, cases, covers
- Drone Kits
- 3D Printing
- OzoBots Coding Bugs
- Robotics
- Lego Engineering

Events and promotion of Diablo STEM program \$3500

- Geeks Night Out
- Kid Zone Experience at City of Tempe PlayDay
- Tempe Library ComicCon
- Tempe Family Fun Factory
- Reaching to local business to partner their expertise with our supplies.

Mini STEM Grants to each site \$10500

- 20 locations x \$525: Use to increase daily STEM activities and on site classes.

Kid Zone STEM summer camp \$4,750

- Kid Zone created a 9 week immersion STEM camp for 100 students. Program located at a Title one school with over 75% of students on the free or reduced lunch program.



Event Example: Tempe Comicon STEM poster display:



Kid Zone Enrichment Program and Diablo STEM Integration



STEM Community trip to the butterfly museum



Literacy and STEM infused into art projects



Geeks Night Out Engineering Project



9 Kid Zone Sponsored Community Gardens



Tempe Comicon Superhero STEM Table



Makerspace Foosball out of all donated materials



Leadership News station W/ Diablo STEM Tech



Partnership with ASU Football: Keep kids in school



Partnership with Tempe Mounted Horse Unit



Kid Zone Diablo STEM program Reaches Capitol Hill



Kid Zone designed state wide curriculum in partnership with AzCase to encourage Lights on Afterschool. Kid Zone hosted 17 events including 1 flagship events attended by lawmakers, funders, and community members.



Kid Zone kids have adopted 6 parks and planted 5 trees as a community collaboration between Diablo STEM, Tempe Adopt-a-Park, Arbor Day 5K, and Kid Zone Nutrition Running Program.



The Kid Zone Nutrition Program sponsored by the Arizona Nutrition Network includes both hands-on cooking demonstration, non-elimination physical activity, and healthy eating education that supports our Diablo STEM goals. Diablo STEM education is infused into so many of program!



Kid Zone Cares yearly food drive raised over 2000 items for Kyrene Family Resource Center and Tempe's Care 7 Crisis Unit. Kids used Diablo STEM to market, collect, and raise finances for the Food Drive.