

STEM Scale Up Program Application

VEX IQ Challenge

Applicant First Name:

Andrew

Applicant Last Name:

Almelien

City:

Clarinda

Applicant STEM Region:

Southwest

Applicant Organization/School Building:

Garfield Elementary School

Applicant Title in Organization/School:

4th Grade Teacher

Applicant Organization/School Address:

423 E Nodaway, PO Box 59

Applicant Organization/School Address 2:

County:

Page

Zip Code:

51632

Applicant Phone Number (with area code): 712-542-2132

Applicant Summer Phone Number (with area code): 712-542-5165

Applicant School/Organization Email: aamelien@clarindacsd.org

Confirm Applicant School/Organization Email: aamelien@clarindacsd.org

Is your shipping address for STEM Scale-Up Program materials and equipment different from above? N

Administrator's First Name: Chris

Administrator's Last Name: Bergman

Administrator's Email: cbergman@clarindacsd.org

Administrator's Phone Number: 712-542-2132

Institution's Fiscal Agent/Business Manager First Name: Colby

Institution's Fiscal Agent/Business Manager Last Name: Pederson

Institution's Fiscal Agent/Business Manager Email: cpederson@clarindacsd.org

Institution's Fiscal Agent/Business Manager Phone Number: 712-542-5167

Educators Implementing and Attending Required Professional Development:

Educator 1 Information

First Name:	Andrew
Last Name:	Almelien
Email:	aamelien@clarindacsd.org
Position Title:	Elementary science
Grade Level(s):	4, 5, 6, 7, 8

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2. Will this program be implemented in school or out of school or both?

Both

3. How many classrooms, sections or groups will the program be implemented in?

3

4. Estimated number of youth who will participate: 45

5. Based on estimated youth participating, what percentage of youth are on free/reduced lunch? (round to nearest whole number) (please refer to <http://reports.educateiowa.gov/> for guidance of free/reduced lunch by Iowa Schools. Any questions about this report, please email them to info@iowastem.org): 40

6. Based on estimated youth participating, what percentage of students impacted will be female? (round to nearest whole number) 17

7. Based on estimated youth participating, what percentage of students impacted will be non-white? (round to nearest whole number) 7

8. If applying for more than one STEM Scale-Up Program, please rank preference for this program (e.g. 1st of 3, 2nd of 2): Ranking 1 of 1

9. After reading the "What is Required" section of the program's one-pager, describe how you envision fulfilling the expectations of this program in the context of your learning environment, how your plan fulfills the program expectations, and how this program fits your school/organization's long term plans for STEM? (300 word limit):

We plan on fulfilling the expectations by attending the two-day virtual training and additional training that will help guide the STEM initiative within our district. We will also contact educational support as needed or as we have questions. We will fulfill the role of coach and will have an established meeting place. Our school has abundant technology to meet the needs of the VEX program. We will evaluate our successes, new learning, and acquired skills through the program STEM Scale-up Educator survey at the end of the competition season. We are in the process of expanding our STEM initiative within the Clarinda Community Schools and this program will ensure that we have access to materials and thereby create access to students, promote success in our students' ability to compete in the global society. This program will help support the NGSS Guidelines and Iowa standards set before us. Lastly, this program will allow us to meet our district's goal of creating Future Ready Iowans. Being part of this program will also support our STEM, Best Grant. We have a passion for the field of STEM and will use prior experience in summer STEM programs to continue to build this program.

10. Given that the STEM Scale-Up Program of the Iowa Governor's STEM Advisory Council is intended to "seed" or start programs (not sustain), what are your

school/organization's plans to sustain this program in future years in terms of costs for consumables, licensing, training, leadership advocacy, etc.? (300 word limit):

We plan on paying for future team registrations and travel expenses through the district's general fund and/or activities fund. We will also have the option to apply for Clarinda Foundation money that supports our district should the need exist. Should the need arise we will have funds available to replace any broken parts. We plan on advocating for STEM education by sharing with the community through media, STEM Festival nights, competitions, and displaying VEX capabilities through this STEM process. We as well hope to bring in guest speakers to promote STEM education and show students that everyone is empowered through the VEX program. Due to the high student interest, and direction, and innovative approach our district is taking we believe that this program will be sustainable for years to come.

11. The STEM Council established the priority to reach children of high need and/or under-representation (specifically ethnic/racial minority, gender distribution, free or reduced lunch, special needs and low STEM test scores). Please describe the barriers in your community which restrict participation of these under-represented groups in STEM programming. How will you address those barriers to involve these subpopulations? (300 word limit):

This program will be offered to all students enrolled in our district regardless of the barriers the students face. We believe that exposure to these skills is important to all students regardless of their abilities, socioeconomic status, disabilities, race, sexual identification/orientation, or age. We believe that past experiences have shown us that if we incorporate STEM into the classroom as well as afterschool programming we are being inclusive for ALL students to have access. We as educators must be role models in creating a desire within students to know that everyone is capable and can learn through the project-based-learning of STEM programming. We also believe community support of these programs is integral in making this program successful. We believe that we will have guest speakers from our manufacturing companies within our town that will reinforce that all people can be successful when given the tools to help them create, collaborate, and communicate to solve real-world problems. Students who may not have an athletic aptitude are able to compete and collaborate with peers through an educational and competitive setting. The world of robotics is seen in everyday life and this award will give our students the opportunity to understand the underlying workings of robotics.

Additional Comments (In this area, please share with us any special circumstances or information specific to your organization that would be pertinent for us to consider):

We believe as we create the Future Ready model of success for our district we will help our community see that we strive to help our students compete with a global society for jobs that may not even exist. Our students may be the future of creating those new jobs. We have had many students go through the First Lego League program and they have expressed interest in the VEX program. Our robots that we have used in the past through FLL are now outdated and no longer serve the purpose intended. The district has recently acquired a large facility in our community, where students will be given the opportunity to prepare for the future in a variety of STEM Fieldsares. We hope to incorporate the VEX program into a larger robotics program. Thank you for allowing this opportunity to get our students ready for opportunities of the future.

How did you hear about the Scale-Up program opportunity?
Email from Regional STEM Manager