Curriculum Enrichment Grants Spring 2023 Cycle

PROGRAM DEADLINE: March 01 2023 at 05:00 PM EST CLOSED

Applicant Information

Name:

Email:

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Applicant Information

Applicant First Name Last Name Email MCCSC school or building where you University Elementary work. Position / Title - if you are an MCCSC student you must have a sponsoring Classroom Teacher MCCSC teacher. Grade level you teach or work with. Student applicant please include name and school of your sponsoring N/A teacher. If not a student list N/A. Phone number or extension **Project Partners/Other Persons Involved in Program Program/Project Information Project Content**

In 3-6 sentences succinctly summarize your project. This is used by grant

reviewers and will be used in FMCCS print materials.

6th Grade Metal Foundry Experience

Title of Project

This exciting project will combine Art, Science, and Industry to take 6th grade students at University Elementary through the multi-step process of casting aluminum sculpture. Each student will carve into a block of sandstone, with the support of a skilled foundryman. Their work will be used to make a sand mold, which will then have molten aluminum poured into it at University Elementary for every student to witness regardless of grade. This experience and the science behind casting metal will be on full display for all, and will make a lasting impact on their understanding of how metal is formed in industry. The result of this project will be a large relief sculpture that will hang in the halls of the school forever.

# of Students Impacted annually/one time	100 Direct, 592 Indirect (school population) experience "Pour Day"
Who will your project serve? (target population)	The project will serve every student at University Elementary on the day of the metal pour, and directly impact the learning of every student in 6th grade.
Investment Priority -	
If you are requesting STEM funding less than \$1000 please use the Science & Environmental grant application.	Arts
Total Budget Amount - note this may be greater than your proposal request	6000
Amount of Funding Requested Range \$250 - \$5000	1000.10

Detail your project, need, and how funds will be used to impact educational opportunities for students. Include specifics such as school development plans, grade level educational standards and/or research based information your project will help achieve. Please do not upload or provide links to lengthy research or documents. We want your words, thoughts, and ideas. If you need additional space you may consider weaving it into your goals and measurements.

As we have already received funding from the City of Bloomington Art Commission (1500.00), The State of Indiana Arts Commission (1000.00), and the University Elementary PTO (2500.00), this grant would assist in fully funding the required 6000.00 to make this project happen for our students. This lesson is exemplar in that it touches on many engineering design and visual arts standards, as well as prepares 6th grade students for 7th grade science standards pertaining to energy definitions, and the transfer of energy creating state changes in a material. Furthermore, students will get the opportunity to work with an expert sculptor/foundryman, as part of the City of Bloomington Art Commission grant, and will be challenged to work as a large whole grade team to accomplish their sculpture.

University Elementary is an International Baccalaureate school. As such, students are inspired to tackle their education with enthusiasm for working with others while practicing empathy for differing opinions. This project will test 6th graders' abilities to learn together, work amongst differing skills, aptitudes, and ideas, practice empathy and compromise, and reiterate their designs to achieve an excellent outcome. Students in this process will provide input for the final design, and will work with the professional sculptor as well as art teacher, STEAM specialist, and others to collaborate on an overall layout, where all ideas will be melded into one cohesive image that then gets carved by all. 6th grade participants will then learn how to carve sand blocks for maximum effect in metal casting-learning from the expert foundryman.

This process will take a month or more, and will culminate in the Sculpture Trails Mobile Foundry visiting University Elementary. All students will have the unique opportunity to watch as aluminum is subjected to immense heat in a blast furnace and then poured and finished in the sand casting method. This, perhaps, once in a lifetime experience is sure to inspire-and frame the concepts of energy transfer and matter state changes in a real-life scenario. Part art, part science, this demonstration will both reinforce scientific principles learned in 5th grade as well as prepare them for middle school. Finally, their collaboration will be put on display forever in the school.

Some standards covered in this lesson include:

Science-

PS3.A: Definitions of Energy.

PS3.B: Conservation of Energy and Energy Transfer

Engineering-

MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

ETS1.B: Developing Possible Solutions.

MS-ETS1-3. Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

ETS1.C: Optimizing the Design Solution.

Visual Art-

VA:Cr1.1.6a Combine concepts collaboratively to generate innovative ideas for creating art.

VA:Cr2.1.6a Demonstrate openness in trying new ideas, materials, methods, and approaches in making works of art and design

Define the expected outcomes and goals of this project.

The overarching goal of this project is to get students working and talking together to create something beautiful, all while learning an interesting artmaking process from a master craftsman. Through this, the hope is to inspire students to see art as something exciting, full of STEM inquiry and practice, as well as a career that students could pursue as seen by working with a professional sculptor. Furthermore, we hope to celebrate the uniqueness of every student's ideas, in coming up with an amazing design using the constraints of what can be carved, and what can be cast accurately using the sand casting technique. The effort of the group, we hope, will result in an outcome that honors all participants individual efforts as well as symbolizes a larger unity as all of the individual blocks created renders a larger image. Students will see their own work, in that of the team, which will be something very special.

How will you measure your goals and success of this project? Please use quantitative data and measurement tools you will use to define student improvement, value, and results of this grant. Example: 30 students will be engaged in our environment by observing wildlife in its natural habitat. They will learn the names of local birds and write about them in creative stories.

The ultimate tangible goal of the project is resulting in a permanent art installation that is designed and created by the 6th grade students at UES. Their understanding of Science, Art, and Industry/Engineering will be utilized in collaboration with receiving a first-hand look as to how metal and metal fabrication is not only transdisciplinary (relating back to a main concept within International Baccalaureate teaching), but also wildly exciting and engaging.

Intangibly, this experience is meant to build a closer school community overall, where UES is able to share an experience and education school-wide. Another intangible goal is also that of the connection between students to teacher as well as student to student. Being new to UES this year, Ms Gullotti strives to create a meaningful and memorable experienced to be shared with the 6th graders, whom will only be her students for one year before leaving UES and beginning their Middle School education. Due to such a short time with the students, Ms Gullotti believes that an incredible opportunity such as this will create and foster lifelong memories and bonds between classmates (and hopefully even develop an appreciation for lifelong learning itself)!

Additionally, the entire UES school population (Students and Faculty alike) will benefit in the engaging experience of "Pour Day", wherein the foundrymen at Sculpture Trails will cast the molten aluminum into the sandstones carved by 6th Grade. They will be able to educate any and all who come to witness the metal casting on different things like the casting process itself, the types of metal casting done in their giant Foundry out in Solsberry, and even some of the history of metal casting as an art versus an indulstrial necessity. Teachers would also have the opportunity to create an activity around the event or just come to observe and learn with their students.

Define the timeline for implementing and accomplishing your stated outcomes. Include in your timeline if your project investment is sustainable and will be used for students beyond the year of implementation.

This project will begin in earnest in March. Students will meet the sculptor/foundryman and be introduced to the project. Individual classes will work together before the whole grade convenes on a design proposal, to which the sculptor and teacher will assist in laying out the design on the sandblocks. From here, students will learn to carve, and work to render the design on their individual block. Casting will commence in May, as an end-of-year activity. Artwork will be finished by the artists of Sculpture Trail onsite, and will install during summer. This is a one-time project, although success this year could make this an annual event in the corporation.

Please upload any additional information that may help define vour project, specific goals, or

secure or potential.

objectives.		
Grant Budget		
Upload budget file.	Foundation of Monroe County Community Schools.docx	
If your budget is different from amou explain.	nt requested please	
Have other funding options been explored?	Yes	
List any other sources of funding for this project. Indicate if sources are	Secured: City of Bloomington Art Commission: \$1500, The State of Indiana Arts Commission: \$1000, University	

To what extent is the project achievable if you were to receive less than the full amount requested?

Elementary PTO: \$2500

We most likely would not be able to complete the project unless we ask student's families/parents for help (which is trying to be completely avoided)

Grant Approvals

Building Representative Approval

Building Representative's First Name First Name	Colette
Building Representative's Last Name Last Name	Eno
Building Representative Email Address	cceno@mccsc.edu
Building Representative Phone Number	812-330-7753

Principal Approval

Principal's First Name First Name	Glen
Principal's Last Name Last Name	Hopkins
Principal's Email Address Email Address	ghopkins@mccsc.edu
Principal's Phone Number	812-330-7753

Submission

Electronic Signature / Approval

By typing my name, I confirm that I have written this grant and if funded agree to implement in my school or classroom during this school year. You must click submit for grant submission to be finalized.

