Building It Forward

KVEC's "Tiny House" Purpose Driven Learning Opportunity Grant Application

Applications Should be E-Mailed to:

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(Faxed copies will not be considered. E-mail receipt will establish deadlines)

We want to thank the educators and students who participated in KVEC's "Tiny House" Purpose Driven Learning Opportunity last school year. The auction is now underway and can be viewed at www.theholler.org. We hope all of you will choose to 'Build it Forward' in year 3-(FY2018-19). We are now accepting applications from experienced and new builders.

Prior Grantees - If you successfully completed the criteria as outlined in the application from last year, you are invited to complete the application for year 3 and submit at anytime prior to July 15, 2018. This timeline will allow you to purchase materials and be ready to begin in August. All applications will be reviewed by an independent panel and feedback will be provided; experienced builders and finalists for new awards will then be invited to present their plans at the KVEC Promising Practices FIRE Summit at the Pikeville Expo Center on October 23, 2018. Experienced builders will receive funding as defined in and by the original application, this project is about Building it Forward each year; once the auction is complete (June 2018), your school will have a base of $15,000 and 80% of the dollar amount above the final auction bid to build a new house in the next school year. Example, if the bid for your house is $20,000, the winning bidder will write KVEC a check for $20,000. To complete the build for the following year, your school will receive $19,000 (15,000 base + 4,000) from KVEC.

New Applicants will be selected to receive funding for up to $15,000. All applications will be scored by an independent panel in a blind scoring process. Applications will be due by August 10, 2018.

in • no • vate - v. To begin something new: introduce.

-- Webster's II

Innovation is the spark of insight that leads an inventor or an artist to investigate an issue or phenomenon. That insight is usually shaped by an observation of what appears to be true or the creative jolt of a new idea. Innovation is driven by a commitment to excellence and continuous improvement. Innovation is based on curiosity, the willingness to take risks, and experimenting to test assumptions. Innovation is based on questioning and challenging the status quo. It is also based on recognizing opportunity and taking advantage of it.

In the world of education, innovation comes in many forms. There are innovations in the way education systems are organized and managed. There are innovations in instructional techniques or delivery systems. There are innovations in the way students are included in an active learning process. The list goes on and on.

An element of the ARI/Investing in Innovations (i3) mission is to identify, support and promote innovative practices in education - and as importantly - support and promote those educators and their students who are daring to be great. This project/work has the potential to affect Inquiry Based Learning and the economic landscape.

Build it Forward by Constructing a Tiny House!

We believe that students will learn and stay engaged from constructing 'a tiny house project' and teachers will learn by working together and developing a multidisciplinary curriculum and documenting the process for schools and for individuals. Students earn credits in math, science and English while also learning the necessary skills to build their own small house (or possibly to start their own business building tiny houses for others).

Many students have never used a hammer or worked as part of a team to truly construct a tangible product. The hands-on learning could also be a nice change from staying inside and 'following' a textbook or doing a worksheet.

The goal is for teaching and learning to be fun and applicable to post-secondary success; where students are engaged in the learning and can apply the learning to life and success in high school and beyond.

Research has shown that students who participate in hands-on learning remember the material better, feel a sense of accomplishment when the task is completed, and are able to transfer that experience easier to other learning situations.

Students who may have difficulty learning from sitting at a desk in a classroom, students who may have auditory deficiencies or behavioral interference especially benefit from hands-on learning. And, those who may not be as academically talented or who have not shown interest in school stay engaged when they are part of the learning process and not just spectators.

Over the school year, students will learn much more than how to hammer, paint and stay steady on a ladder. They will put their math, science and engineering studies into action and construct a

house on wheels that can withstand strong winds and all the shaking and jarring that comes from traveling down the road at 60 to 70 miles per hour.

They may also look closely at how affordable housing could benefit families in their own community.

This is a project that can impact all students. Those high academic achievers will gain skills they may not gain from sitting in a classroom focused solely on a book; while, students with learning disabilities and poor academic records due to poverty and other issues may learn skills that could provide them with a successful future.

Examples of Academic and Social lessons

Here are the lessons Ackerman Academy students learned from building a tiny house:

Design: Interior design; plans created in Adobe Illustrator and Google Sketch-Up; graphic design logos, fliers, posters, T-shirt. "Drawing to scale in Illustrator with measurements that had to be collected over and over again was definitely not always easy," says Saad.

Economics and property requirements: Financing a standard-size home compared to a tiny house; home sharing properties; living off the grid without using city utilities; zoning and transportation codes.

Math: Mathematics, geometry and engineering formulas to figure out angles, area, material costs and structural stability.

Natural resources: Recycled and reusable materials; renewable resources; rainwater collection; composting toilets; solar panels and battery-charged energy.

Technology science: Mechanisms of heat loss and gain; radiation, convection, conduction, evaporation; metabolic heat, solar radiation, external radiation; body heat requirements; shelter insulation, strength, flexibility; location thermodynamics and green design; water collection and purification; energy production and efficiency; waste processing.

Social issues: Learning about poverty; access to natural resources; power and privilege; tiny homes as an affordable housing option; poverty-related service projects.

Could this project empower high schools across the region and beyond with the opportunity to design a learning pathway and develop curriculum for students, that will enable them to deeply connect with their communities, and learn invaluable life lessons along the way?

Engaging school students with an interesting, hands-on and practical project like building a tiny house is a great way to teach useful skills they can use to build a stable financial future, and to understand that there’s a huge spectrum of places and spaces that people call home.

First, we practice transparency. The Tiny Houses Project Grants awarded through KVEC are not yet tried and true. They have not yet been subjected to rigorous scrutiny or how the work fits into a career pathway and post-secondary success. Applicants/Recipients will design their project in an informative and compelling way, while not making claims about its effectiveness until results can be measured and compared.

Second, we provide ongoing support for grant recipients. Once awarded a grant, educators are connected to a broad system of available supports that include regionally based staff, District Innovation Coordinators, colleagues and a growing virtual landscape.

Third, we encourage all grantees to use Action Research designs so that, over time, we can learn if these interventions are effective. We do not mandate a specific set of metrics or require a common model, believing that the dynamics in individual classrooms/initiatives require unique designs specific to need and outcome. We provide incentives for grant applicants to embed such studies into their project designs from the beginning as reflected in the scoring rubric. We expect that each Tiny House Design will look different. A requirement is that each Tiny House is designed and built so that a person(s) can live in it.

Fourth, we showcase and highlight the work of Innovation grantees. Applicants are required to present their design plan at the Promising Practices FIRESummit in October 2018 and they will be required to bring their completed Tiny House to the Action Research FIRESummit in April 2019 as we host an "open house" to showcase their work. As a critical mass of grantees develops--those that have shown positive impacts on student achievement or other positive outcomes-- will enable us to promote innovations aggressively, through publications, web sites, and videos.

Procedures and Requirements:

Applications from <u>new districts will be accepted from each of the KVEC districts until August 10, 2018.</u> <u>Prior grantees must have their applications to KVEC by July 15, 2018</u>. Round 1 - All applications (experienced builders and new builders) will be screened by an independent panel and provided feedback. Round 2 – Finalists for new projects will be notified by August 15, 2018.

<u>Design requirements</u>. Someone must be able to comfortably live in the tiny house. As such, the following are required in the design plans.

- **Must be able to be transported (that's the purpose of the house for many)**
- **Must have a vehicle to transport the tiny house to the Action Research Summit**
- **Must have adequate plumbing and electricity**
- **Must include sink, stove or double burner hot plate – but does not need to be a full-size stove, small fridge, toilet, microwave or convection oven**
- **Appropriate heating, air conditioning**

Applications should include the following sections:

1. **Preliminary research on building a tiny house**

Examples of research topics include:

- **Local zoning laws and restrictions**
- **Restrictions on transporting/licensing a tiny house**
- **Building laws and codes**
- **Inspection laws and codes**
- **Fire codes**
- **Ownership or renting codes when placing the tiny house on property**
- **Other as determined appropriate by school/district instructors**

2. **Rough design or blueprint of a tiny house**

3. **Estimated budget to acquire the materials and build the tiny house**

4. **Timeline/workplan for building the tiny house (Communication with students can be very important regarding workplans. Weather and school closures can impact the timeline for the build).**

5. **Learning objects for the tiny house. Objectives do not need to be specific standards. The section should identify what students will broadly learn and skills they will apply (academic and socio-emotional) to build the tiny house**

6. **Oversight structure for the project. How will adults support the collaboration be and facilitate student learning? How many students will participate? Aim to build a design team comprised of students with varying academic and socio-emotional skills.**

Final Product:

- **A tiny house that can be immediately occupied by a person**
- **Certificates of inspection where appropriate**

- **Open house at the Action Research Summit**
- **Final budget that reflects planned and actual costs**
- **Final design plans or blueprints, as they would be submitted to the local inspectors**
- **Report that:**
    - **Summarizes the research conducted to design the tiny house**
    - **Description of the changes in the design and reasons for the modification**
    - **Explanation of lessons learned**
    - **Modifications to the design if you were to secure funding to build another tiny house**
    - **Is this a project you will continue for future generations of students?**

Requirements for considerations include:

1. A complete submission of application. Deadline for submission from new applicants - August 10, 2018. Deadline for prior grantees – July 15, 2018.

2. Commitment to present your project and the projected impact at the Action Research Summit (Pikeville, KY on October 23, 2018 and bring the Tiny House to the FireSummit in April 2019.

3. Commitment to document the building process and share project results on the ARI interactive WEB portal (Holler)

Important Dates for Tiny House Applications	
August 10, 2018	**Deadline for Grant Submission to KVEC**
October 23, 2018	**Finalist will present their design plan to the expert panel at the Action Research Summit**
April 10, 2019	**Teams will showcase their Tiny House at the Action Research Summit at the East KY Expo Center in Pikeville**
May 1, 2019	**Final Report Due**

APPLICATION COVER PAGE

(To be included with Application)

Applications must be submitted electronically with signatures. It is suggested that you request a read receipt with your submission.

Teacher's Name(s):	
Grade Levels involved:	# of Students Involved
Number of Community Partners:	
Names and Roles of Community Partners:	
Teacher/Sponsor E-mail Address:	
School Name:	
School Address City Zip Code	

Application *must* be submitted by the *Sponsor, District Innovation Coordinator or Superintendent and contain appropriate signatures.*

Grant Applicant Signature **Date**

Principal's Signature **Date**

Superintendent's Signature **Date**

Innovation Coordinator's Signature **Date**

Project Title (short, creative and on point)

_____

_____

APPLICATION DUE: **New Applicants:** **August 10, 2018**
Prior Applicants: **July 15, 2018**

Projected Budget Detail:

Description of Item/Activity	Projected Amount

Total Amount Requested: _____

1. **Project funds must be spent during the school year (2018-19).**
2. **A final expense report will be required – due May 1, 2019.**

Scoring Guide
ARI Learning Innovation Grant

Note: The Tiny House Initiative is focused on Purpose Driven Learning and Purpose Driven Learning beyond just the Classroom experience. We fully expect each project design to be different and unique and representative of your school community. Individual schools, communities and partners will design a workplan to address a unique need. The Assessment Rubric has been intentionally left open so as to encourage creativity and collaboration. Applications will be scored based on: (1) quality of design, work-plan and ability to complete the project on time and within budget (2) ability to meet requirements identified in the RFP. We encourage teams to think beyond the classroom and work with the community to exchange ideas and engage mentorship opportunities.

Points Possible	Topic	Description
10 Points	Relevant Problem of Practice	Identifies an area of focus and serves as a guide for your research. Why do you and your students want to build a tiny house? What will your students learn from this project? Discuss relevant research? Discuss Purpose Driven Learning practices as related to this initiative.
25 Points	Quality of Action Plan (Tiny House Blueprint)	Addresses how your team designed the tiny house and report on the teamwork effectiveness… from design to construction. Your blueprint will identify the importance of the trailer and anchoring the tiny house to building the foundation, framing, etc. Your blueprint will be scored for overall effectiveness.
25 Points	Quality of Work Plan	Addresses how your team will complete the design and a timeframe for completing the construction from beginning to a "turn-key" Tiny House. The work-plan will be scored for overall effectiveness.
10 Points	Overall Plan Progress Monitoring	The extent to which the plan is thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project. How will you document your build at different stages of the process? How will the team ensure the quality of the construction?
15 Points	Plan to Communicate Results	The extent to which the applicant will share information about results and outcomes of the proposed project in ways that will enable others to use the information or strategies. How will your team provide progress updates to the KVEC team? How will you communicate progress to the school community and engage them in the project?
15 Points	Potential for Impact on Teaching and Learning	The extent to which the proposed project is designed to build capacity and yield results that will extend beyond this initial funding. Discuss relevant research around study for career opportunities, etc. How can purpose driven learning be incorporated into a career pathway?
Total Points		