



Sudbury Education Resource Fund

PROJECT TITLE

Touring Ancient China through a Virtual World Experience

ANTICIPATED START & END DATES OF PROJECT

April 2019 - June 2020

TOTAL AMOUNT REQUESTED

\$10,500

APPLICANT 1

Pat Johnson*

POSITION

7th Grade Ancient Cultures Teacher

SCHOOL DEPARTMENT

Curtis Middle School Social Studies

EMAIL

pat_johnson@sudbury.k12.ma.us

APPLICANT 2

Jamie Brown*

POSITION

Humanities Curriculum Coordinator

SCHOOL DEPARTMENT

District Curriculum & Instruction

EMAIL

jamie_brown@sudbury.k12.ma.us

Tell us about your project idea

In 7th grade, there have been additional civilizations added to the Ancient Cultures course that is currently taught. Students in the past have studied ancient Egypt, Greece, and Rome. The 2018 Massachusetts History and Social Science Curriculum Framework, has added Ancient China to the curriculum.

Additionally, the new standards focus on using primary sources to represent and understand the development of these civilizations. The revised appendices of resources reflect a wealth of digital primary sources and curriculum materials, to support these newly introduced areas of study.

*Names have been changed

This grant is a proposal to secure enhancement materials for supporting a multimedia student research project of Ancient China. We aim to integrate opportunities for students to explore and

deepen their understanding of accurate representations of Ancient China through virtual travel. Virtual Reality (VR) is a powerful way for students to explore a virtual space to come as close as possible to actually being there.

Students, in small groups, will use Google Expedition, a web-based app, to design and create a virtual tour to demonstrate their learning of an assigned China dynasty. Students will also view each other's tours using the VR headsets.

In addition to the VR headsets, this grant proposal includes supplemental text resources to support students' diverse reading skills during their research on Ancient China.

What are your objectives?

As a district, we are always working to enhance our students' learning experiences with innovative opportunities that are aligned with 21st century skills -- creating, communicating, collaborating, and critical thinking. These VR headsets will take students to a location that they may not ever travel to, and will allow them to design a tour of locations for a time and place that curriculum standards expect students to "know".

When the VR headsets are not being used by the Ancient Cultures teachers and students, they will be available in the library for check-out for other teachers to use with any grade or content area.

What are your project activities?

The project begins with collaboration among this proposal's team of educators to design the Ancient China Virtual Reality project. Once content background knowledge has been built for students, towards the end of April, students will research their assigned China dynasty. Students will work in small groups using Google Expeditions and the supplemental text resources to design their virtual tours. Once tours are designed, students will showcase their VR tours with classmates.

How will you assess your project's success?

Students will have a formal assessment at the end of the Ancient China unit based on the material they have learned through their research and viewing their classmates' VR tours. We believe that the addition of the VR experience will add depth and richness to students' understanding of Ancient China. In order to measure our hypothesis, we will conduct a qualitative comparison of students' assessments this year (with the VR exploration capabilities) as compared to at least the previous two years. We will specifically be looking at the short answer and essay portions of the assessment to determine if we see an increase in student's ability to more fully and accurately describe their assigned Dynasty as well as the other Dynasties they learned about through classmates' projects.

In addition, students will be given a feedback form after completing their VR project. This will be an opportunity for students to evaluate the pedagogical approach and we will ask them to rate how much they agree to the following questions:

1. I found the use of Google Expedition and the Virtual Reality Headset technology easy to use.

Strongly Disagree Disagree Neutral Agree Strongly Agree

2. The use of VR Technology made learning about Ancient China more fun for me.

Strongly Disagree Disagree Neutral Agree Strongly Agree

3. It was easier for me to learn about and remember Dynasties that were assigned to other groups because of the VR tours students created.

Strongly Disagree Disagree Neutral Agree Strongly Agree

4. I think using Google Expedition and the Virtual Reality Headset technology for teaching Ancient Cultures is beneficial and should continue or expand.

Strongly Disagree Disagree Neutral Agree Strongly Agree

We will also provide students with the opportunity to expand on their feedback by asking them to provide short responses to the following questions:

1. What did you like most about this Ancient Cultures project?
2. What would you suggest to improve this assignment for next year's students?
3. Would you like to see VR integrated into other content areas at school? If so, what ideas do you have?

How are you collaborating with colleagues, if applicable?

The design and implementation of this project is a collaboration among Curtis Middle School 7th Grade Ancient Cultures teachers, the Middle School Technology Integration Specialist, and the Sudbury Public Schools Humanities Curriculum Coordinator.

What additional preparation/training is required for the implementation of your project, if any?

The Middle School Technology Integration Specialist is attending a Digital Learning seminar about virtual reality in the classroom on April 4th. Teachers will collaborate with this specialist during ILAP and department meetings to practice using the new technology and integrating it effectively into the design of students' learning experiences.

How will you extend the impact of this grant?

VR headsets will be available for check-out from Curtis Middle School's library circulation for other content area teachers to use. With hundreds of developed Google Expeditions, teachers will have many content choices for integrating VR technology into their own lessons, with middle schoolers creating and leading their own virtual tours.

This would also be an engaging tool in the district's orientation of new educators. The district could create a virtual tour of our district buildings, historical sites in town square, and other community spaces that are part of the cultural surround sound for students and their families.

How will you communicate your results to colleagues and the community?

Our principal has agreed to provide staff meeting time for our colleagues to experience the student created virtual tours of Ancient China. We will structure this time to explain the why, what, and how of our process for developing this virtual reality project, take questions, and then prompt our colleagues to brainstorm curricular connections between their content areas and where this learning tool might enhance what students' are expected to know and do. We will also share the results of our qualitative assessment and aggregated students' aggregated feedback at this time.

Please indicate what SERF funds will be used for (check all that apply)

Materials

Describe needed materials and their costs:

Item Description	Quantity	Estimated Cost	Link
Virtual Reality/Augmented Reality Headsets	30	\$10,000	Headsets Ancient China Tour Sample
Ancient China Text Resources		\$ 500	

Is this project contingent on receiving funds from other sources in addition to those requested in this proposal? Please explain.

N/A

What additional information would you like to share with us?

N/A

This project and grant application has been discussed with my building principal.

Yes, final sign off from [Principal] on 3/21/18.

BY ACCEPTING FUNDING I/WE AGREE TO: (PLEASE CHECK ALL BOXES)

- Submit detailed accounting to SERF regarding funds expended as part of this grant.
- Submit a final project report within thirty (30) days of completing this grant.
- Provide a testimonial or description of response by students and/or staff to the grant.
- Publicize project to parents/teachers via email, social media, classroom bulletins, school newsletter.
- Collect/submit captioned photographs, work samples, and/or other visuals for publicity purposes.
- Label all items purchased with the grant funds with notice: "Provided by SERF".
- Ensure statements and/or press releases describing project include: "This project is supported by a grant from the Sudbury Education Resource Fund."
- Recognize that providing accounting, reporting and publicity items listed above is a condition of funding and therefore is my/our obligation as a grant recipient.