

the Story of a Cultural Artifact from a Mathematical Perspective – expanded

A few years ago, I introduced the SCAMP (Story of a Cultural Artifact from a Mathematical Perspective) project during Grandparents and Special Friends Day. It gave students a chance to talk to their grandparents about their culture. Where does my family come from? How did we arrive in the United States? Why do we always have these particular foods for holiday dinner?

We then took an artifact from our culture and looked at it *differently*.

My family is from Canada, and I used the maple syrup can from my family's farm as my artifact. Mathematically, I looked at volume and production.

- How much syrup could this can hold?
- If a tree produces x gallons of sap, how many gallons of syrup can I make from a farm of 100 trees?

Students created a presentation using technology or poster board to showcase their artifact. I wrote a short children's book about a girl's first trip with her father to tap the trees and then read it to the class. Some students made Power Point presentations; others brought in their artifacts. Cooper L. made poutine, Tyrick C. brought in wooden carvings from Haiti, Kobe G. made a video of himself playing the djembe, and Tim O. talked about the didgeridoo. What I loved was that students actually learned something new and were proud of their heritage. Tyrick had heard stories about "Brown Man" (yes, that is what he is called), but he did not know his significance or what the man was holding and why. I have sample Power Points, poster boards, and videos from previous years.

Last year, Brad approached me about doing something "cultural" to celebrate the diversity we see in our students. I thought I'd bring back SCAMP and expand it and create a multi-disciplinary unit. Below are merely suggestions. Feel free to take on what you want. Change your component to fit your passion.

English

"Tell it again."

Those are the three most powerful words, according Richard Wagamese, the award-winning First Nation author from Ontario. He spoke at the 2016 International Boys School Coalition conference in Vancouver about the lost art of story-telling. Too many oral memoirs are being forgotten despite how powerful this custom can be. He reminded us to think about family conversations that traditionally ended up with one of the younger generation's plea to "tell it again" – re-tell the story about great-grandfather's trek into the wilderness or how great-great uncle survived a bitter winter with just a pocketknife and piece of flint.

Sixth-grade students could write their "tell-it-again" story. What story would they like future generations to repeat? This could be a true "story" they currently are proud of or a legacy they would like to create. Or you can do whatever you think would be fun!

Tech

Because these stories are passed down orally from generation to generation, students could retell a story from their families by creating a podcast. This podcast would be a “tell it again” story they hear from their families during holiday gatherings. If they don’t have one, they could ask their parents if there was one in their family when they were growing up. Or they can creatively come up with their own “tell it again” story they would like passed down about them.

Art

A few years ago, students in art created a clay map of a country and a 3-D sculpture of an iconic image. They could do something similar for their country of origin.

Geography

In addition to what Brad covers in his classes, we thought we could have a “cultural exposition” at the end of the year, complete with a feast (allergens removed, of course). This would be a work in progress. We can showcase the podcasts, poster boards and clay sculptures.

How long would this take? It depends on how much each group does, but it should not take more than two weeks (not every day). Ideally it would be great to introduce this before/during Grandparents’ Day so students could take advantage of their visitors. Yes, there will be some whose grandparents may not still be alive or those who could not make the trip. Hopefully, they can gather thoughts and talk to their parents about their culture or reach out via email, Skype or telephone.

Beyond Innovation: Creativity, Discovery, and Engagement.

- Workshop Title
- Abstract (400-character maximum, including spaces)
 - Clear concise summary of entire presentation
- Description (1,000-character maximum, including spaces)
- What three questions will your workshop answer? (500-character maximum, including spaces)
- Co-Presenters

TITLES:

Using Math as a Springboard to Discovering Cultural Identity
Using a Multidisciplinary Approach to Discover Cultural Identity
Discovering Cultural Identity through Grandparent's Day

GO TO REVIEW .. ABC 123 Character count

Students will apply a multi-disciplinary approach as they discover their cultural identity. Math, English, geography, technology, and art all come together to help students foster intergenerational conversations while as they examine a culturally-significant artifact. Introduced during Grandparents' Day, the project gets students talking with family members about their heritage and reliving stories told over the kitchen table.

Teachers across subject areas come together to guide students as they discover their ethnic identity. Through intergenerational conversations and an examination of a culturally-significant family artifact, students look at their artifact through a mathematical lens, write and create podcasts that re-tell stories told over the kitchen table

TITLE: Using Math as a Springboard to Discovering Cultural Identity

ABSTRACT: Teachers across subject areas come together to guide students as they discover their ethnic identity. Students learn about their heritage through intergenerational conversations and examine a culturally-significant family artifact through a mathematical lens. They write and create podcasts re-telling stories told over the kitchen table and fashion clay models of an iconic image from their culture.

DESCRIPTION: The traditional "cultural project" takes on a twist as students start their journey with intergenerational conversations about their heritage. Where does my family come from? When did we arrive here? Why do we have certain foods at the holidays? We take those conversations further by looking at objects symbolic to their family and examining them through a mathematical lens. What is the volume of liquid in that English tea cup? What is the area of the Haitian wooden carving? If one maple tree produces 15 gallons of sap, how many

cans could be filled? They then fashion these culturally-iconic images out of clay in art class. Inspired by Richard Wagamese's "tell-it-again" mantra of oral traditions, English teachers guide students as they retell stories shared over kitchen tables and create podcasts of those spoken histories. Geography classes tie it all together as students share what they've learned about their "home" country. The project ends with a portfolio and multi-cultural feast!

Take a maple syrup can. Look at it. Really look at it. Now look at it mathematically. What does it tell you now?

THREE QUESTIONS

1. How can students look at math through the lens of cultural identity?
2. How can students foster intergenerational relationships through this project?
3. How to explore cultural identity through an interdisciplinary approach