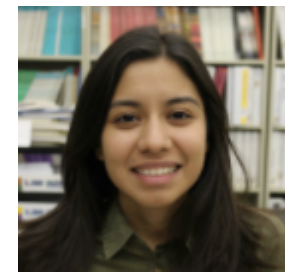




UTeach Maker - Showcase Lesson Overview

Miriam Reyes (Spring 2017)



Lesson Title	Collaborative Paper Quilt
UTeach Maker	Miriam Reyes
Name of collaborator/s	Shelly Rodriguez
Subject and grade level	Pre-AP Biology 9 th
Link to lesson plan and materials	http://miriamreyesutmaker.my-free.website/maker-education

Lesson Description:

This Maker Project is intended to be a review for topics that students are assigned in a creative manner. The lesson is able to be used for any topics in any subject from Algebra to Physics. Students with the same topic are paired and tasked with making a quilt square with poster paper and any craft material available. At the end, students present their projects in the form of a gallery walk and put them all together to form a “quilt”. The end product features LEDs to make it pop in the classroom and unite all the quilt squares.

Lesson Development:

This project was also a part of my Maker Showcase for the UTeach Maker Endorsement. The development of this project began through a need for a different way of reviewing material that would keep the students engaged and help them better remember material, and the best way I could think of was through creativity. The lesson was originally going to be about natural selection, but my class was reviewing material for the STARR exam and I decided that making this a review activity was a better approach.

Lesson Implementation:

I implemented this lesson with one of my apprentice teaching classes at Travis High School. They are a pre-AP Biology class made up of 26 students. Although a relatively large class, they are quite good at taking charge of the material, which is why I chose them for the first iteration of this lesson.

Connection to important concepts and skills within the discipline and/or across subject areas:

While the students aren't learning new material through this lesson, it is a great way to review any topic in any subject. I used it for biology, but it can be used for any topic, including other science and math classes. Students get experience collaborating with other students as well as experience in gathering important material from their notes and other resources. Students also get to learn a little about simple circuits (especially parallel circuits) if the teacher decides to let the students make the quilt

Reflection:

Planning a Maker lesson that would fit into biology was definitely a challenge, but I am more than happy with the end product that the students made. While we did not have a lot of time to focus on this lesson, the students still got a lot out of it and gave me finished products. In the future, I hope to take more time to get to teach the students about simple circuits and how to get the LEDs to light up with minimal assistance from the teacher. I will definitely be revising this lesson to allow it to be used for any topic in school. I found this to be a great review activity that is a little more engaging than just having the students complete review worksheets, which does not promote creativity. This was also an incredibly rewarding experience in that the students were so apprehensive at the beginning that I was getting worried that they were not going to like the lesson. They were so used to just filling out worksheets and writing things down in their notebook that this new type of activity was different and even a little overwhelming for them. They were not used to taking charge of their learning, they were mostly used to being told exactly what to do in an assignment. As they were working on their quilt squares, they were incredibly engaged and even upset that they weren't able to get more time to make their work more elaborate. I got some amazing products in the end, and their work is currently hanging in my mentor teacher's classroom. I really enjoyed the experience, even though it was stressful, and the students even learned a little about what the Maker Movement is as well as that their school had a Maker Space they could work in if they took the engineering classes.

This experience has inspired me to plan at least one more Maker inspired lesson that I will do with my apprentice teaching class, which I will probably do after they are done with their STARR exam. This time, it won't be a review activity, but something much more fun. As of now, I have plans to incorporate the green space near our classroom and plan a lesson involving making some wildlife friendly structures as well as planting some native plants so as to attract native animals to the space. My hope is that the students will learn something new that applies more to their life as opposed to just learning material to pass exams.