

Mandala School News

4 March 2016

S.T.E.M. at Mandala

Recommendations by the National Science Teachers Association and other curriculum groups state that Science, Technology, Engineering, and Mathematics (STEM) should be integrated and problem based. That's the philosophy we have always followed at Mandala.

For families used to identifiable science classes they might not always see the science being done here.

The latest example of an integrated project is our "World Game". They were placed in groups, assigned a geographic area, and asked to figure out how to survive if it were 7,000 years ago.

Where's the science? the technology? the engineering? the math?

Effective problem solving includes:

- collaboration
- analysis
- synthesis
- evaluation

Where are these aspects of STEM in the World Game?



Made by Joseph

Each group explored their biome (arid, temperate forest, coastal, boreal) to find

natural resources for food and shelter. Some groups have built tools from rocks, sticks, and clay or mimicked materials using wood, twine, paper, and self-drying clay.



Discussions were held about mining, discovering oil, smelting, flint napping, lashing, starting fires, and so on. They are discovering in an experiential way that technology is human-made and develops from previous technology.



Invitation to visit

Many families only see Mandala at the beginning or end of the day when children are in transition.

Few have actually seen the learning experiences.

Please schedule a day to observe!

Shelters were constructed based on climate. A coastal shelter subject to hurricanes looks much different than an arid shelter that must withstand extremes of temperature.



An appreciation develops for what can be used from animals. Even our vegetarians and anti-killing proponents found that they would probably have been carnivores and killers because they had to be.

Ethan's week
I like how the World Game works. It's fun. We are making a model of the beach.
Co-op classes are fun. I'm in the advanced origami.

The limitations of their biome lead to religious tenets because they see how water or trees or animals could be thought of as sacred.

Most of the discussions demonstrate logic, facts, questions, hypotheses, and conclusions. In other words: scientific thinking. They are not merely learning the words of science; they are practicing science on a daily basis.

Xishun's week
I have begun working on a new project: a giant, two-handed wooden sword. I have wanted to work on it for a while. I found a piece of wood, sketched out how it will work, and got my teacher to cut it out on a band saw. I will sharpen and refine it. When it is all done, I'll put something cool on the side of the sword.

Music at Mandala

Every Tuesday for an hour Mandala students walk to the Music Room to sing, play instruments, and learn about music with Dave Hallett.

This week they formed a select band for those interested in working harder to become better musicians. They will stay for the last half hour while others return to the schoolhouse.

Today five students are attending a Buffalo Philharmonic Orchestra concert featuring Elgar's cello concerto. All the older students were offered this opportunity.

To prepare they learned about sonata/allegro form, heard Yo Yo Ma play part of the concerto, and discussed concert etiquette.

Trimester Reports

Reports will start going home today with the rest going home early next week. Look for these and please communicate with us about any concerns or if you would like more information.