

# Place-based Learning Initiative Write-Up

**Teachers: Chris Blanche**

**Subject(s): Math**

**Community Collaborators: Skowhegan Farmers Market**

**Essential Question:**

## **Abstract:**

## **Overview**

1. Describe the NEED existing in your community that the initiative addresses.

The need that is being addressed through this initiative is two-fold. The community needs to see that one of the greatest resources they have are the local students. The students need to see that they already have and are continually gaining skills that allow them to be active contributors to their community. Specifically, we have chosen to partner with the Skowhegan Farmers Market in an effort to promote a greater awareness of their existence as well as the products and services available there.

2. List your goals and objectives for this place-based endeavor?

My goal is to introduce students to real-world applications for mathematics while providing our community with a resource (students) that has been virtually untapped. I would like to see our students using the skills and resources that they have gained in the classroom to help promote a greater awareness of the Skowhegan Farmers Market. I want students to see how the things they are learning each day can be put to practical use in world around them, and to learn to see themselves as contributing members of their community and society as a whole.

3. Procedure: List the activities/procedures undertaken in the various phases of your learning unit

- Students designed a taste test survey to compare organic vs. non-organic apples
- Students compiled the data from the taste test and graphed the results
  - Students learned how to manipulate the graphs in order to be persuasive
- Students conducted research in order to become familiar with local vs. global economies as well as organic vs. non-organic farming practices
- Students participated in one of two debates (local vs. global, organic vs. non-organic)
- Students harvested corn at a local farm (Grasslands) to help provide corn to the local food bank

- Students ran a seed store to help raise funds for the Skowhegan Farmers Market and help promote awareness
  - Students chose the seed varieties that they would sell (Science)
  - Students determined the quantity/size for each seed pack depending on the variety (Math)
  - Students established the pricing for each seed pack being careful to maximize profits but still remain competitive with other local store prices (Math)
  - Students designed an order form to track their sales (Math)
  - Students created informational sheets (Science) about the seeds to be passed out with orders
  - Students created a survey (Social Studies) to collect while taking seed orders so that they could provide feedback to the Skowhegan Farmers Market
  - Students tallied their orders (Science) and calculated the bulk quantity of seeds they needed for each variety (Math), being careful to factor waste (dropped seeds, etc..) during packing.
  - Student weighed and packed each individual packet then filled the orders one at a time (Math/Science)
  - Students donated all the profit (\$450) to the Skowhegan Farmers Market to help cover advertising costs as well as to get a web page advertising local farms off the ground (a web page that they designed in Language Arts by interviewing local farmers and creating web pages for them)
  
- Students participated in a culminating activity with several of the local farmers
  - Several local farms donated supplies and joined the students here at school to make pizzas made entirely of locally produced food. They baked the pizzas in wood fired oven, and together celebrated the success of the year long collaboration.

4. Teachers can empower students by allowing them to "exercise their own powers and responsibilities"(Bloomer). Community Projects seek to encourage and enhance this student empowerment.

Describe how your students were able to direct their own learning throughout the activities in which they were engaged.

Apple Taste Test- Students came up with all of the characteristics that they felt were important to compare between to apples. They designed their own surveys and then selected the survey that they thought would be the best to use for the taste test. Students took the results of the taste test and designed persuasive graphs using their laptops.

Seed Store- Students selected the varieties of seeds that would be offered through their store. They designed the order form, the informational sheet, and the survey. They established the pricing for each packet as well as the quantity per packet. Students also set up work groups for filling orders. With little guidance, each student took on a role in order to complete the task (one weighed seeds, another filled packets, another reweighed the packet, and another sealed the packets).

5. Who are your community partners or individuals in the community who are assisting students with this initiative?

Skowhegan Farmers Market  
Grassland Farms  
Other Local Farmers  
Laura Richter  
Nancy Jervey  
Fedco Seeds  
Paper Klip

**21<sup>st</sup> Century Skills** –describe how the following skills are embedded in your Place-based Initiative:

6. Teaming and Collaboration:

The nature of the project lends itself nicely to collaboration. Students worked extensively in the Math and Science classrooms to run the seed store, while research and data were being collected in conjunction with the seed sale in order to be used in the Social Studies classroom. Meanwhile, students were interviewing farmers and designing web pages in Language Arts. The classroom teachers worked together to make sure that ample time was being provided for each step/activity to be accomplished and provided additional help to one another as needed.

The early stages of the project included lots of research on local vs. global markets as well as organic and non-organic farming practices. We wanted to make sure that all of the students had a strong foundation of knowledge before embarking on the more targeted projects that we would be working on.

7. Technology Integration-how specifically did your student use technology throughout the phases:

Students used their laptops for the creation of all graphs, surveys, order forms, and informational sheets. They also used the laptops for blogging as well as conducting research. Laptops were used in the production of web pages for local farmer in the Language Arts classroom.

8. Interactive Communication (including multi-media presentations)

The use of the Promethean Activboard was an integral part of all of the mathematics that was done for this project. All lessons and instruction were delivered through this format.

9. Literacy strategies used by students (in your content)

Some of the literacy strategies that students used during the process include but are not limited to:

Think Pair Share  
Sum It Up  
Jigsaw  
Interactive Word Walls  
Knowledge Rating Guides

## **Assessment**

10. How is this initiative benefiting the community:?

This project has help to promote community awareness of the Skowhegan Farmers Market. The seed store that the students ran, raised enough funds (\$450) to get a web page promoting local farms off the ground and it allowed the Farmers Market to form a partnership with the our local students providing them with a resource to be used again in the future.

11. Describe the student projects you will be submitting for publishing as a result of this Place-based initiative.

I will be submitting copies of student work connected to the Apple Taste Test (Surveys and Graphs) as well as the Seed Store (Order Forms and Math Work) that students ran. I have also included an interactive lesson that was part of the Apple Taste Test.

12. How are student projects evaluated? Please include your Rubrics.

Students were given specific criteria to meet when they designed order forms, graphs, etc.. Students were graded as having either met the requirements or not. Students that did not meet the requirements had to redo the assignment until all expectations had been met. This process required multiple revisions for some students, but in the end, each student produced a product that fulfilled the criteria.