



Frog vs. Alligator:
Basic Multiplication Practice

Miss President's 3rd Grade
Multiplication Hoppers
of
Broad River Elementary School
Beaufort, SC

The South Carolina STEM Innovation Expo

The Citadel Military College

Organizational Chart

- Team Leader/Technology Coordinator: Allie Nettles
 - Technology Department:
 - Isaiah Shields
 - Donovan Myers
 - Katelyn Vinson
- Lead Writer: Meagan Shearon
- Lead Editor: Braden Johnson
 - Publication Department:
 - Ryan Robinson
- Research Coordinator: Quanahsia Wilkerson
 - Research Department:
 - Katelyn Brand
- Design & Engineering Manager: Mason Hively
 - Design & Engineering Department
 - Megan Shearon
 - Brelynn Hurt
- Professional Partnerships Liaison: Brelynn Hurt
 - Professional Partnerships Department
 - Alexis Carson
 - Jalaya Lindo
- Support Supervision: Marciano Landry
 - Support Department:
 - A'Shan'tek Milledge
 - Richard Parker
 - Alex Frazier

Introduction to Challenge

This STEM Challenge gave our team the chance to create a video game that helps us with our multiplication skills. The challenge helped us to become better students and better inventors because we had to learn a new way of doing things. Even though we use technology almost every day in our class, this challenge helped us to put what we know with what we learned to make a game that we could use for the rest of our lives.

Overview of Proposed Project

The purpose of our project, Frog vs. Alligator, was to create a game that would help other students improve their multiplication skills in a fun, creative way. Frog vs. Alligator is geared towards students from third to fifth grade. One of the unique things about our game is that it has fancy music every time you win. It helps you to learn your multiplication table better. While a lot of other games are violent, our game is a fun and nonviolent way to learn something that can sometimes be not so fun.

Project Activities and Timeline

You play the game as the frog. The goal is to get the answers correct so you can hop to the finish line. Each answer that you get correct lets you hop to a new lily pad. To win the game you must get all answers correct so that you won't get eaten by the alligator.

Creating this game took a lot of work. It began when we first learned about the STEM challenge in November. At the STEM program, we learned about the game challenge and was introduced to Scratch. While at the program, we split into groups and brainstormed ideas for the content and look of our game. After we were done, we showed each other our ideas and drawings and voted to make a multiplication game.

In November, we looked at our MAP scores and decided to create a multiplication game. We brainstormed and played other games to make a list of things that a good game would have. Then, we started watching practice videos on how to use Scratch. Each group began to working on their own game plan. In December, a group of students began to learn how to use Scratch. We started by

creating random objects to see how Scratch worked. In February, we went every Wednesday to the computer lab to continue working on our game.

By March, we were finished with our individual games and were ready to present our games to the class. The class broke into groups to play each of the games. For each game they played, they wrote down the pros and cons of each game. After, we discussed as a class what we liked and didn't like about each game. Then, each person voted on their favorite game. In April, we all worked on improving the game we picked. We came up with ideas for the name of our game. We voted and chose Frog vs. Alligator.

Outcomes

Our game will help us improve our multiplication skills. This will also help us keep practicing throughout the rest of the year to make sure that we all are ready to take the PASS test and for 4th grade. It will also help our new students who are just learning how to multiply get better.

Evaluation

Before we started creating our game, we took the MAP test and used the results to show where we started. After we made the game and practiced our multiplication facts, our new MAP scores showed that all of our scores went up by at least 3 points.

Appendix

A. Sketches

B. Additional Documents