

Project Proposal: Computer Science for the Young Mind

Subject: Computer Education

Purpose and Scope: The purpose of this project is to advance the development of computer programming education at the elementary and middle school levels. To do so will require knowledge of a simple programming language.

Background: In today's global economy, more and more job opportunities in the field of computer science are being created, and as technology becomes more advanced, a larger and more competent workforce is required. Computer education continues to become more readily available to high school students to this day, but progress at the elementary school level is still limited. Traditional technological usage for elementary and middle school education has been generally limited to typing classes and visual aids.

Procedure: To successfully pull this off, I must utilize a viable substitute for traditional programming languages: one that is easy for children to understand and edit. I plan to continue an ongoing project at Cardinal Forest Elementary School by using Scratch, a simple, child-oriented programming language designed and released by MIT in 2007. As part of a team that includes Crystal Noel and Jessica Gorman from Period 2, I will design project ideas that adhere to the curriculum in place. Since I don't have a car, I plan on helping to teach via a webcam or other telecommunication device.

Testing and Analysis: Through the school year, I plan to administer various projects for students to complete with Scratch, ranging from making and causing sprites to interact to constructing games and puzzles. By the end of the year, I will propose a final project for the students to complete and modify. Projects will be graded and determined by functionality on multiple levels. The actual curriculum is not so much an organized classroom as it is a point-of-interest group.

Expected Results and Value to Others: Just as Gregory Gates and others like him have tried to do, I hope that the curriculum I am a part of will last for years to come at Cardinal Forest Elementary. I don't specifically know what to expect from the students, as long as they get something out of it.