



Carlo Harryman/Rocket-Miner

East Junior High School students work to complete the programming necessary to complete the classic video game "Frogger." Students are, from back to front, Clint McJunkin, Kenny Horton, Steve Anselmi-Stith, Tanner Jelmiee, Eun Glaze, Colton Manning and Chandler Marsh.

## EJHS students got game

### Innovative pilot program brings video games to the classroom

DEREK RAYBACK  
Rocket-Miner Staff Reporter

ROCK SPRINGS — An innovative pilot program at East Junior High brings video game programming into the classroom to increase student's interest in computer science and the science, math, engineering and technology, or S.T.E.M., fields.

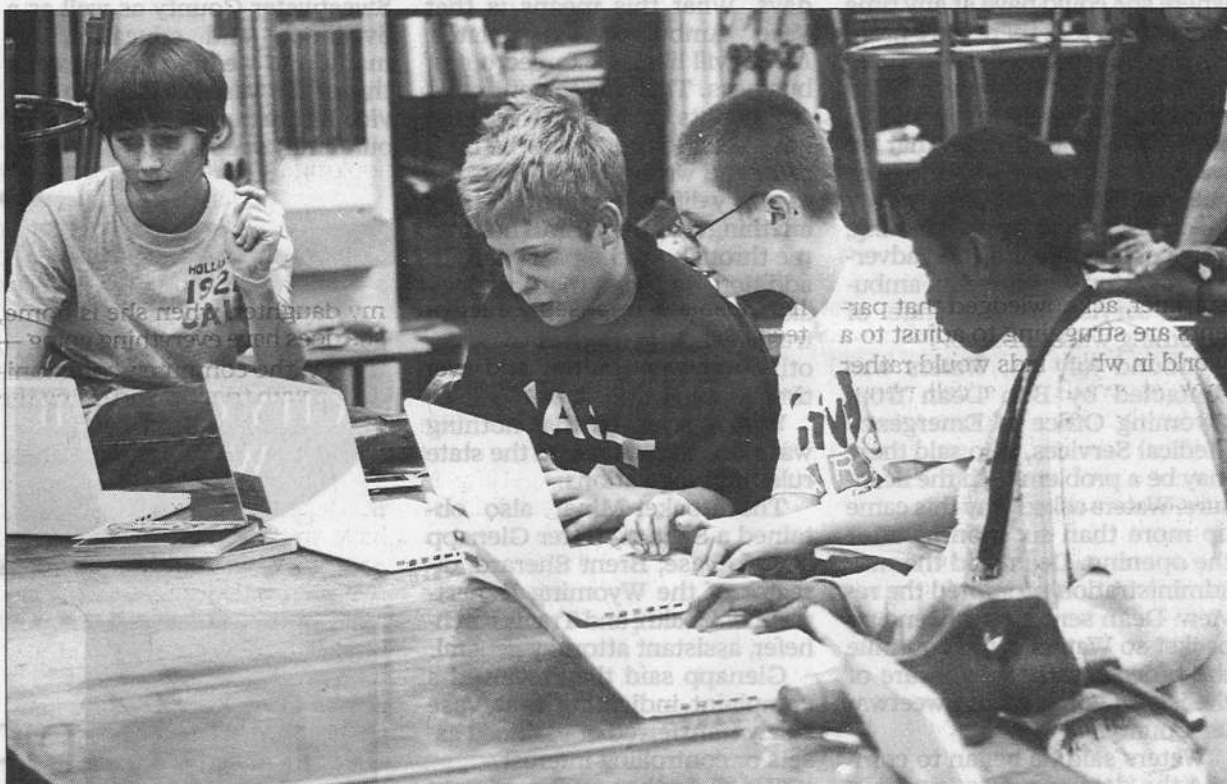
The program is based on object-oriented programming curriculum through Scalable Game Design concepts. It is funded by the National Science Foundation and aims to motivate and educate middle school students to learn about computer science through game design.

Originating at the University of Colorado, Boulder and AgentSheets Inc., the project has established partnerships with many schools in Colorado, Alaska, South Dakota, Texas and Wyoming.

This program came to Sweetwater County School District No. 1 after East Junior High School teacher Jason Reub participated in the NASA Summer of Innovation over the past summer. Students went to a breakout session that showcased the technique.

"The students were engaged and actively participating throughout the entire session," Reub said. "I then realized this could be a great program and opportunity for students in Sweetwater No. 1." The program has received praise from the school administration.

"I am very pleased with the opportunities that the students at East Junior High will receive from this program," Sweetwater County School District No. 1 Superintendent Paul Grube said. "It is vital that students can relate what is being taught in the classroom to real-world situations."



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East Junior High School students look to Kenny Horton to answer a question about how to make their programming function properly. Students are, from left, Clint McJunkin, Horton, Steve Anselmi-Stith, Tanner Jelmiee.

With this program, students are able to use the AgentSheets software to create video games similar in style to classic arcade games like "Frogger" and "Pac-Man."

The introductory lessons walk students through the creation of the "Frogger" video game. The lesson is based on a unit that involves programming using if/then statements, conditions and actions that are constructed using visual game components.

"These beginning lessons allow students to understand the basic software engineering and programmable logic concepts," Reub said. "Students can then begin to design simulations and artificial

intelligence, used in more advanced programs."

According to Andri Ioannidou, AgentSheets senior project manager, the program makes it easier for people who do not have computer science knowledge to create their own games. It also gives students the ability to create their own characters using a paint program.

"The 'Frogger' game is a starter point to get students excited," Ioannidou said. "We want to motivate kids with a short module and show them they can do it."

Ioannidou also said they hope to get more women and minorities interested in computer sci-

ence.

In addition, program supporters said students participating in game design get to collaboratively engage in problem solving, creativity, modeling and communication through project-based learning.

"The problem solving and creative thinking skills that the students will learn will be invaluable," Grube said.

This pilot program at EJHS started with an after-school enrichment program. The program meets twice a week and is available to all EJHS students. For more information, contact Reub at East Junior High School.