Software brings students' concepts to life

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Indian Creek students spend time thinking about amusement park rides, and they get a grade for it.

One student learned how a Ferris wheel spins by creating a computer model of the ride.

Another created an amusement park concept that involved a ride that rocks riders back and forth like a pirate ship. It was called "Taco Death."

Eventually, students in a technology systems class will design video games in three dimensions.

Teacher Travis East uses a software program, Alice 2.2, to teach students how to bring the world around them to life virtually. The software allows students to get more creative and add more detail than previous two-dimensional assignments allowed.

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PHOTO BY SCOTT ROBERSON

Adam Davenport spent time re-creating a common amusement park ride. Now he is designing his own ride. Eventually, he'd like to design video games similar to his favorite, World of Warcraft, he said.

"We get to experiment and make it more out there," the sophomore said. "There is a variety of things you can do with it."

Jack Hounshell is creating "The Cataclysm," a ride that swings riders side to side and up and down.

The program allows for more detail than the same assignment would be in two-dimensions, the senior said.

"I enjoy it. You basically can make whatever you want in 3D," Hounshell said. "You can do a lot more with Alice."

Students can drag and drop electronic sketches of their rides and worlds into Alice. Toolbars help them make spheres and other three-dimensional shapes.

In the program, students can see exactly how their ride will spin or twirl based on the geometric sketches they entered. Then, they can add details, such as putting people in the ride and adding buildings around it.

Learning to use the advanced software will help students get jobs and keep up in college-level coursework if they want to study technology beyond high school, East said.

"The world in which we live is a 3D world," he said. "We are trying to prepare students for jobs that don't yet exist."
The program also helps students who have struggled in technology classes because they didn't understand math concepts.

In East's past classes, students would use geometric concepts such as working with shapes and parallel and perpendicular lines to create images on a geometric sketchpad.

Projects then would be transferred to two-dimensional software.

Alice allows students to put their projects in three dimensions quickly, helping the students solve problems and check their work more accurately, East said.

Students who have struggled in math classes are now excited about using the technology, he said.

More students are coming into his classroom on their own time to experiment with the software and work on projects, East said.

One of the first assignments students complete is a tutorial on Alice. They have to spend time building a Gravitron, the carnival staple that spins quickly and pins riders against the wall. Next, they must render an existing ride.

Later, they'll create their own ride. By the end of the year, they will be creating video games, he said.

And soon the software won't just be for technology students.

East will work with other teachers in the school to integrate the technology in their presentations.

English teachers may be able to lead class discussions by using the 3D software to have animated storyboards, he said.

"(Alice) is not only about simulating rides and games," East said. "Teachers can use it to tell stories."

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