

Year 8 students explore computer science in Australian first

St John's Anglican College is shaking up secondary computer science education as the first school in Australia to embed the Blueberry 4 computers in its curriculum.

The program enables Year 8 Computer Design students to learn how computing technology works, with a specific focus on the microprocessor. It introduces them to the fundamental operation of computers and enhances their understanding of binary coding.

St John's Anglican College eLearning coordinator Sharon Singh says the program has so far been a success with students engaging and experimenting with the Blueberry 4s. The opportunity to focus on students computational thinking skills in a fun way is very rewarding.

"It thrills me to see how engaged they are," Sharon says. "They arrive early for class and don't want to leave because it is so exciting and hands on."

The program created by Digital Technologies Institute CEO Dr Karsten Schulz was trialled with a small group of students at the end of last year. Following the program's success in the trial phase, the school chose to introduce it to help provide middle years students with a deeper knowledge of how computers work.

The program addresses the knowledge and understanding of digital systems and the representation of data component of the new national digital technologies curriculum designed by the Australian Curriculum and Assessment Authority and enables kids to master binary addition and subtraction, logic, data transfer, short-term and long term memory and programming.

Following this program, the Year 8 students will be tasked to build a computer from scratch to demonstrate their newfound knowledge and skills in computer science. Sharon hopes this exercise will help pave the way for students' successful careers in the IT industry.

Sharon says she is also very focussed on helping girls who want to pursue a career in the male-dominated computer science industry.

"Having been in the STEM field for so long, I am very passionate about getting girls on board and so glad to see how engaged they are," Sharon says.

"We are trying to encourage the girls to take STEM subjects and I am pushing them to work in the computer science area because they are just as capable as their male peers."

The Blueberry 4 program is just one learning tool included in the suite of computer science devices in the STEM Institute at St John's Anglican College, which also includes 3D printing, coding using Raspberry Pis and Arduinos, and a robotics program. The college is currently in the process of introducing virtual reality and drones to the mix.

For more information, comment or images, please contact:

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