

Sussex Academy student catches math error in family guides



Finn Davis, a junior at Sussex Academy of Arts and Sciences charter school, notified the Delaware Department of Education after he noticed an error in the family guide sent to his home with the Smarter Assessment results of his sister, Sadie.

Fifteen-year-old Finn Davis, an 11th grade student at the Sussex Academy of Arts and Sciences charter school in Georgetown, was sitting at his kitchen table in Milton this past August when he saw the Delaware Department of Education's [2016 Family Guide to Student Success](#).

Curious to read what his sister, Sadie – also at Sussex Academy – would be working on in grade 8 math during the upcoming year, Finn flipped to page 4 of the booklet.

“I knew right away there was an error,” said Finn, who describes himself as having a passion for both mathematics and accuracy.

At the bottom of the page appeared a listing of the Delaware content standards and associated examples of what Sadie would learn. One bullet stood out: *Working with*

positive and negative exponents, square root and cube root symbols, and scientific notation (Example: Evaluating $\sqrt{36 + 64}$; estimating world population as 7×10^8)

Finn knew the world's population was more than 7×10^8 , or 700 million people, and that census.gov estimates the world's population at 7.34 billion.

"I felt that information like that needed to be corrected," Finn said. "So I notified the Department of Education."

In his letter to the department, Finn explained the error and recommended a correction.

"While the stated expression was simply an approximation, a greater than tenfold difference is not acceptable," wrote Finn. "I would suggest that this expression be changed to a much more accurate 7×10^9 , equal to 7 billion."

Department staff verified Finn's claim and updated the online family guides. Going forward, the annual printed family guides will reflect Finn's change as well.

"It's fantastic that Finn not only questioned the information but also took the time to contact those who have formal authority to make change happen," said Michael Watson, chief academic officer for the department. "Finn has the true qualities of a leader. I encourage him to continue questioning and to make change happen whenever necessary."

Finn's mother, Sharon Davis, was not surprised by Finn's catch or subsequent letter, and says that Finn is always "very aware" of the information he sees and reads.

"He's constantly pointing out errors he finds on signs and in books," Davis said. "It's tough to challenge him, but we try to make sure this happens every day. Sussex Academy has been doing a wonderful job challenging Finn."

At Sussex Academy, Finn is enrolled in the International Baccalaureate Program and has already completed a number of college courses. His favorite subject is chemistry and – not surprisingly – his favorite teacher is his chemistry teacher, Dr. Heather Moore.

“Everything is very hands-on in her class,” Finn said of Moore’s teaching style. “We’re not just sitting there learning through lectures. She really helps her students understand and remember the material.”

Though Finn is not quite sure yet what he wants to do as a career – pathologist, microbiologist and chemist are all in the running – next year he hopes to be accepted to the Honors program at the University of Delaware.

“It’s a very good school,” Finn said. “And since I’ll only be 16 when I graduate, being close to home is a good thing.”

Outside of academics, Finn is a typical student. He enjoys reading National Geographic magazines and sci-fi novels, golfing, biking, and hanging out with friends.

This past year Finn found another error in his instructional materials – this time in his International Baccalaureate chemistry textbook. The error was concerning the speed of light.

“They used the wrong sign for the exponent,” Finn said. “They were very much off, which is interesting in an internationally recognized textbook.”

Asked if he wrote International Baccalaureate a letter about it, Finn responded, “No, not yet ... but I might.”