

Educators at a small private Christian school in Olde Town Augusta are seeing results with a math curriculum imported from halfway around the world.

For the past three years, Heritage Academy has used Singapore Math as its basal math curriculum for kindergarten through sixth grade.

In the first year the school adopted Singapore Math, all of its kindergarten and first-grade pupils met or exceeded proficiency standards on the Iowa Tests of Basic Skills, as did 80 percent of second-graders.

Why use math from Singapore?

Pupils in the Southeast Asia island nation consistently score at or near the top in international math tests, and far above their counterparts in the U.S.

"Singapore Math fits with our philosophy that students should be eager to learn," said Linda Tucciarone, Heritage executive director. "God gave us this gift to find out about the world. These children who want to be challenged -- that's part of the culture we try to encourage."

One day last week, Jessica Mack taught a lesson on angles to fourth-graders. During the 65-minute class period, she had pupils walk to the front of the room and identify how many angles a figure had and whether the angles were right, acute or obtuse, using an interactive whiteboard.

She also had pupils work at their desks as she walked around and helped them individually and, toward the end of the class, had them stand up and turn 90 or 180 degrees as an active demonstration of the properties of a circle.

Mack also consistently asks pupils to turn their books to page "one one-hundred, one ten, eight ones" instead of simply "page 118."

"I give the page number in place value, the calendar -- that's a big part of Singapore Math," she said.

Her pupils seemed to enjoy the class, even if a couple of them were having trouble with the concepts of angles.

"I like math because it's fun," said Elijah Jones, 9. "I get taught very well."

Riley Keuroglan, 9, said, without prompting, that she likes Singapore Math.

"I enjoy Ms. Mack, and I love Singapore Math," Riley said. "It's one of my favorite subjects.

"I love facing all of these challenges."

The challenges, both pupils said, are what hold their interest.

"It makes you smarter," Elijah said. "I like the challenges; some of them are fun."

"I enjoy learning about angles and protractors," Riley said. "We learned it last year, but it wasn't as much."

Riley said she has been at Heritage since second grade. In first grade, she was taught Saxon Math, a popular home-school curriculum.

"Saxon Math was great, too, but not as challenging as Singapore Math," she said.

Elijah, who started attending Heritage in third grade, said he feels that he gets more out of math now than he did previously.

It's those types of responses, and the improved test scores, that Tucciarone said she and her staff were looking for when they were researching math curricula.

Tucciarone said that was prompted by Iowa Test scores that showed Heritage pupils excelled at computation skills but not at word problems or other test prompts that require more critical thinking skills.

"We did two years of research," she said. "We looked at Singapore Math, and really, it's phenomenal what comes out of Singapore. They have led the world in math for decades."

Because it is expensive to change from one curriculum to another, and Singapore Math has the added expense of relying on workbooks that students write in, as opposed to hardback textbooks, Tucciarone said she and her staff prayed about it.

"We knew it would be a risk to bring it here," she said. "No other school in the CSRA that we know of uses this as their basal math program."

"The Lord provided," Tucciarone said. A private foundation from Pennsylvania picked up the cost of the workbooks in the first year, and Heritage teachers received low-cost training from counterparts in the Hall County, Ga., school district, which uses the curriculum.

Mack taught Singapore Math in that district.

Lessons taught in layers

A visit to a classroom where Singapore Math is taught will not look that much different from one based on the Georgia Performance Standards.

A look at the standards to be taught, particularly in kindergarten and first grade, will make it seem as though Singapore Math is not teaching as much as standard Georgia math.

But the Singapore curriculum builds on itself in layers so that by fourth grade, for example, while still not as many individual points are being taught, the pupils in Singapore Math typically have a much deeper, conceptual understanding of mathematical concepts compared with their counterparts using other math curricula, Singapore proponents say.

-- **Jason Wermers, staff**