Online Features for *Glencoe Math* Make the Difference for Hathaway Student Progress

**Overview**

As a rural, southwest Louisiana school in Jefferson Davis Parish School System, Hathaway High School serves primary, middle and high school students. Hathaway’s school performance scores are consistently the best in the district, and the school earned an A rating on its 2013-2014 state report card. The school’s scores on the ACT and the ACT’s EXPLORE and PLAN tests have all shown growth and are higher than the national average.

**A decades old relationship**

Hathaway High School is no stranger to math programs from McGraw-Hill Education. Middle school math teacher Elmira Trent says the district has been using their titles almost as long as she’s taught in Jefferson Davis Parish: 30 years. Trent has spent 29 years at Hathaway, the last three of which have been as math teacher for sixth, seventh, and eighth grade.

Trent is proud of her students’ achievements in that time. Her sixth and seventh grade students have consistently outperformed other sixth and seventh grade students in the district and state on the math portion of Integrated Louisiana Educational
Assessment Program (iLEAP), as have her eighth graders on the state’s LEAP assessment.

Trent is especially excited about the *Glencoe Math* program the school adopted last year. She notes that it aligns perfectly with new Common Core State Standards and includes interactive digital features for students and teachers – something the school was not using before. The differentiated instructional support, increased rigor, and relevant problems keep kids engaged and learning.

### Aligned curriculum to maximize assessment readiness

Louisiana has adopted the Common Core State Standards, which demand an additional level of rigor in the classroom for English Language Arts and math.

In spring 2015, Hathaway students will be assessed using the Partnership for Assessment of Readiness for College and Careers (PARCC) test, which measures student knowledge according to what is expected under Common Core.

“The *Glencoe Math* program is completely aligned with Louisiana’s expectations for students,” Trent says.

The carefully crafted *Glencoe Math* curriculum provides a gradual release model of instruction to ensure students’ mastery of Common Core content by the end of each grade level, preparing them for the added rigor of future grade-level standards.

“The way the content is structured and the videos teach the lessons, as well as the examples they give the students, all correlate directly to the test,” she says.

### Rigor and differentiation support every learner

Over the years, Trent’s classroom structure gravitated toward both whole-class and small-group instruction, which she says offers many advantages including time for both guided and independent practice. With *Glencoe Math* pretests for each chapter, Trent uses this data to inform her whole-class and small-group instruction.

She says the extra practice and individual worksheets allow for more individualized teaching as well.

“I want us to do a lot of differentiated instruction and *Glencoe Math* also provides differentiated instruction activities online,” letting students progress at their own pace, she says.

Trent also appreciates the rigor inherent in each *Glencoe Math* program.
Math lesson, including the Higher Order Thinking (H.O.T.) Problems and focus on real-world situations, challenging students to develop higher-order thinking skills.

“When you give students a real-world problem, it causes them to think at a higher level,” she says. “They have to work it through. That also helps to incorporate the rigor students need to meet higher expectations,” provided by the Common Core State Standards, said Trent.

**Glencoe Math + ALEKS® = student progress**

Adding to these digital capabilities is the ALEKS online learning system, which Trent is using for the first time in conjunction with Glencoe Math to monitor and assess student progress. After seeing a demonstration of ALEKS at a McGraw-Hill Education symposium last year, she received approval to use it as an assessment tool in her classes.

“With previous programs we’ve used, kids are given any number of practice questions,” she explains. “They go through the questions related to the domains of the Common Core. If they score below 70 percent, they have to keep redoing the same skill again until they get 70 percent.”

For many students this instruction caused frustration. Ultimately, students did not progress in their mastery of that skill.

“With ALEKS, students take a pretest to determine which skills they need to master. They are given a skill to work on and questions” to practice that skill, says Trent. “ALEKS may say to them, ‘It looks like you know this, do you want to practice again or do you want to move on?’”

Students are responding positively to the opportunity to be in control of their progress. They realize that “If they move on, the skill disappears from their list of things they need to do and they can steadily see their growth,” says Trent.

“The engaging format and the ALEKS Pie Chart illustrates in a tangible way their progress, it makes them want to achieve more.” Trent adds, “I like ALEKS so much more because it matches what I’m doing in my core [Glencoe Math] program.”

**Students show constant progress**

Trent says that even though the district has used math programs by McGraw-Hill Education before, the benefits of the online tools in Glencoe Math are evident. Louisiana’s iLEAP and LEAP assessments measure students on a five-point scale: Advanced, Mastery, Basic, Approaching Basic and Unsatisfactory.

“Last year we had the new program and we had seven or eight, eighth graders out of 47 students score Mastery or Advanced,” Trent says. “Before that, even though students were scoring well compared to the district and the state, we didn’t get too many Advanced or Mastery in math” ratings, notes Trent.

**ENROLLMENT**

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As the district prepares to offer Advanced Placement courses, *Glencoe Math* has also prepared students to take Algebra I in the eighth grade. “I have 10 eighth-graders this year (out of 32) who skipped eighth-grade math and are taking Algebra I and making honor roll,” Trent says.

She says *Glencoe Math*’s online teacher support resources help Trent construct a lesson plan in about 10 minutes, using the Plan and Present feature.

“I also like the fact that the interactive features allow students to do a lesson at home. [They] don’t have to worry about bringing their textbooks from home to school,” she says. “I like the e-solutions, *The Geometer’s Sketchpad*®, and the tutorials.”

Trent says the professional development provided for the new program was also excellent.

“A Curriculum Specialist went through every tool online and showed us exactly how to use it, and their presentation was so good that we all learned how to navigate through it without any problems.”

In the end, “I don’t think I’d be able to teach from another math program,” she says.

“I like everything about it.”
– Elmira Trent
Middle School Math Teacher

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