

Strategies Help Students Understand Math

Sitting at desks with pencils in hand, first graders eagerly wait for their teacher to start the morning's math lesson, a "Math Sprint".

"Ready. Set. Think!" says teacher Bethany Wallace.

The young learners flip their papers and race to answer as many math problems as they can. When a minute timer sounds, students groan and excitedly wait for the answers.

Mrs. Wallace reads slowly as students yell "yes!" with each correct answer. Students pump their arms with pride and their teacher's smile grows bigger.

"That was a great job," Mrs. Wallace tells them. "Let's move to the SmartBoard."

As students gather around their teacher, they practice half-a-dozen other approaches to solve counting problems. Many of the activities feature visual learning to help students create mental pictures. A story about a boy and girl with dimes and pennies gives students a way to think about 10s and 1s for counting.

"Not everyone learns the same way," explains Mrs. Wallace. "We expose stu-

dents to different strategies so they can find what works best for them. The growth they make in first grade is astronomical."

Providing students numerous ways to solve problems is a key focus of Common Core Learning Standards for math, said Principal Mary Yodis.

"Particularly with students being able to see a math problem in a visual way," said Mrs. Yodis. "Students come away with a deeper understanding of math concepts."

As students advance grades they will use many of the same strategies as they tackle more complex mathematics. Teaching tools such as student dry-erase boards and SmartBoards help reinforce the learning in a visual way by allowing students to illustrate their thinking.

Mrs. Yodis noted that when schools started teaching the learning strategies a few years ago it was more difficult because the concepts were new. But now

she is impressed with how students truly understand mathematics instead of simply memorizing their lesson.

"Now you see students who have had Common Core for a few years and it's second nature to them," said Mrs. Yodis. "We're developing critical math thinkers."



Capital Project on Schedule

The district would like to reassure our community that the Capital Project they approved in December 2014 is currently on schedule as administrators meet regularly with architects and others to plan for the building improvements.

Plans for the project are currently with the State Education Department, which reviews all school Capital Projects. Due to staffing shortages at the department, Capital Project reviews can take nearly a year to be approved.

In December 2014, voters approved a \$5,139,000 Capital Project which is expected to have no impact on local taxpayers for two main reasons. First, 72.4% of the

project will be paid for with state building aid designated for school Capital Projects. Second, the local share will come from a Capital Reserve Fund that voters approved in May 2014 to help finance the project.

The district's Capital Project addresses a number of infrastructure needs and will include a 9,400-square-foot addition at the southeast corner of the building, behind the school gymnasium. The addition will include additional classroom space, a stage and instructional space for the school's music program.

If you have questions about the Capital Project, please contact Superintendent Dr. Thomas Reardon at 283-4600 ext. 14 or treardon@wynantskillufsd.org.

New Class Teaches Real World Science

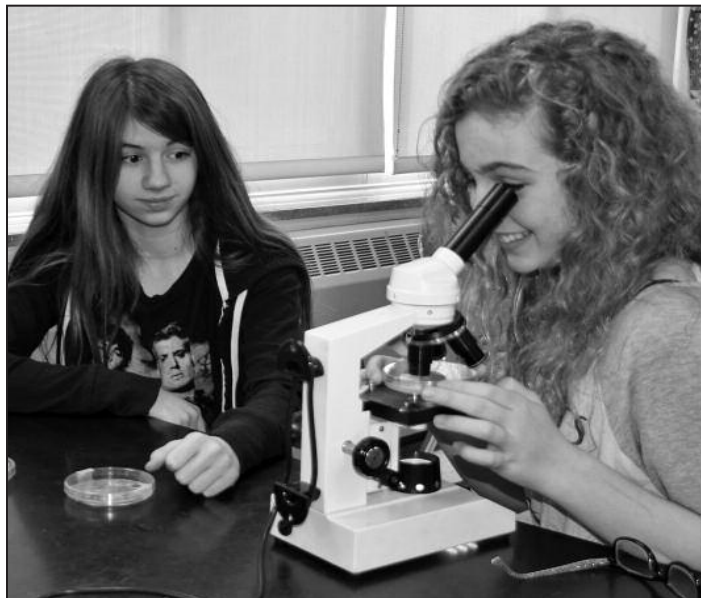
A new class at Gardner-Dickinson this year has middle school students excited about the science around them.

For their first project, 7th graders in Real World Science examined three types of floor wax the school uses to see what worked the best.

“Students developed processes to test the three waxes to get a clear understanding about how they held up to salt, foot traffic, staining and scraping,” explained teacher Martha Ryan. “One group of students brought in different shoes to scuff up floor samples with wax on them. Another group brought ink and different liquids to test the waxes’ resistance to staining. Another tracked salt across the tile samples to see how it affected the finish. Each group had a unique method of testing the floor tiles.”

When each group had their results they put together a PowerPoint presentation on their findings which they shared with Superintendent Thomas Reardon and Building and Grounds Superintendent Neal Benassi.

“Because of the students work, Mr. Benassi was able to make a clear choice in which wax was best for our school. I was very proud of how well they worked and



how helpful they were to our school”, said Mrs. Ryan.

Their most recent project had students swabbing school bathrooms and water fountains to find what type of locations were most likely to have germs. Students grew samples in petri dishes, examined them under microscopes, and had a health expert visit to talk about what they found.

“We surveyed teachers to see habits of students and determine the best places to swab,” said Mrs. Ryan. “Students then developed a plan to educate K-5 students about the importance of washing hands and other ways to stay healthy.”

As teams of students discussed the best ways to communicate what they learned to others, Rayne Barnes noted they needed to make their message simple so younger students could understand.

“We’re looking at ideas like using a ball to show how we can give germs to each other,” explained Rayne. “It gives them a physical example to help them understand the concept.”

Superintendent Thomas Reardon praised Mrs. Ryan for creating a class that challenges students in a way they can problem solve and come to their own conclusions.

“It truly uses the scientific method and puts it into action,” said Dr. Reardon. “It was a bit of a scheduling challenge to turn what would have been a study hall into a class but Martha embraced it. That’s the spirit we love here.”

Dr. Reardon noted that few schools the size of Gardner-Dickinson offer such a hands-on, engaging class like Real World Science.

“We want to offer the same opportunity students would get in a larger middle school,” said Dr. Reardon. “This class helps us meet the rigorous expectations that our parents rightly have for us despite the challenges of being a smaller school.”

Follow Us on Facebook and Twitter

As part of Wynantskill Union Free School District’s continued efforts to improve communication with our community, the district now has a Facebook and Twitter page.

The district’s Facebook page, www.facebook.com/WynantskillUFSD, now has nearly 350 followers. It was launched in 2014 as a way to share stories about our students, emergency notifications and announcements about upcoming events.

The district’s Twitter page, www.twitter.com/WynantskillUFSD, has nearly 150 followers after it was launched this school year. It provides information similar to the district’s Facebook page.

Superintendent Dr. Thomas Reardon also has his own Twitter page, www.twitter.com/GDSuptReardon, where he shares daily updates about the district and news about students, such as photos from the 8th grade class trip to Washington, DC.



Five Teams Compete in Odyssey of the Mind

Gardner-Dickinson School sent five teams to compete in this year’s Odyssey of the Mind regional competition in February.

The 7th and 8th grade team took first place at the competition, which featured dozens of teams from schools around the region. Their first place finish qualified them for the state tournament in Binghamton.

Odyssey of the Mind is a creative, problem solving competition where teams of students work together to solve a challenge. Student teams present in front of judges at the competition, which was held this year at Coxsackie-Athens Central School District.

“Teams met after school since October to construct a solution to an open-ended problem,” explained Speech Language Pathologist Stephanie Carbone. “The problems require teams to think outside of the box and come up with creative solutions presented in an 8-minute skit.”

Studio Art Challenges Students

Like her classmates in Studio Art, 8th grader Olivia Smith has a passion for art.

Ask her about her work and she is quick to show her portfolio, which includes drawings, water colors and collages she has made in the accelerated class.

"It allows you to try harder things and step outside your comfort zone," said Olivia. "It's a higher level of art and you're working with materials that you wouldn't normally use."

The class also provides students an opportunity to earn high school credit.

"When students go to high school, they won't have to take a basic art class," explained teacher Jeanine Mitchell. "They can take photography, ceramics or something else because they've already taken care of studio art."

Gardner-Dickinson has offered Studio Art for a number of years. The class has a strong drawing component, Mrs. Mitchell explained,

because when students go to high school they will find a lot of their art classes focus on drawing.

But the class also challenges students with other artistic forms, including photography, recycled art and collages.

"In Studio Art, I can challenge them a lot more. My expectations are a lot higher for them," said Mrs. Mitchell said. "It's my favorite class by far because of the level of engagement of the students and the quality of art students are creating."

Principal Mary Yodis added that the students' artwork is not limited to the classroom. Each year, students in Studio Art create a painting or mural in the school.

"They like to leave their imprint at the school," said Mrs. Yodis. "They're beautifying the school and leaving a piece of them behind that we can share."



Using Technology to Enhance Instruction

To help students learn how to use technology to research, create and collaborate together, teachers at Gardner-Dickinson are increasingly turning to the online computer platform Google Classroom.

When 5th graders completed their biography project, for example, they used laptops to research, write and create presentations using Google tools that allowed them to share with their classmates.

"It has everything they need right at their fingertips," said teacher Dan DiSotto. "When they write, they can look for synonyms which builds their vocabulary. They can access the school's library database. The students even learn from each other by seeing what they've created."

A science lesson on calculating mass in Peter Mesh's class was an opportunity for students to record data in a spreadsheet, write observations in a shared document, and create tables from their results.

"Students love using technology. Whenever the laptops are out, the students are engaged," said Mr. Mesh. "It allows me to differentiate my teaching to provide additional help to those who need it and students are eager to help each other out and share what they've learned with classmates."

Google Classroom's suite of online tools allows teachers to share documents with students and make more extensive comments on their work. For example, students can open something

they wrote for class and click on a highlighted sentence to see what their teacher wrote about it.

"It helps with testing too. One of my students struggled when I gave him a test so I was able to give him more guidance," said Mr. Mesh. "It turned out to be the best essay because I could provide him more help. He didn't get the best grade, because he needed more help, but he felt good about his work when I shared it with the class."

Parents have also started using Google Classroom to see what their children are learning and to help guide that learning with helpful

comments on shared documents. It also provides an opportunity to discuss internet safety and creating a positive online environment.

"Parents are excited," said Mr. Mesh. "They're amazed how much their children are doing at a young age."

Superintendent Thomas Reardon commended teachers for embracing the technology so they could better prepare their students.

"It really is using technology to enhance instruction instead of replacing instruction," said Dr. Reardon. "It's an important question in education, 'How do we utilize 21st century technology to enhance student collaboration?' We need to ensure we're helping students build those soft skills that are so critical."



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Homework Center Helps Students Succeed

A new afterschool program this year is helping middle school students succeed by offering them time in the school library to continue their studies.

“Homework Center provides students an opportunity to complete their homework or get some additional help so they can be successful in the class the next day,” explained Superintendent Thomas Reardon.

Any middle school student can take advantage of the program. Some students are asked by their teachers to stay to get extra help. Others just like the quiet of the library to study or the ability to access school computers.

“We have students who ask if they can stay,” Dr. Reardon said. “We have yet to have a student participate in the program not have success. It’s been great to see improvement in students’ quarterly grades.”

Dr. Reardon noted the additional time with a teacher is helpful for students particularly when everyone’s lives are so busy. It also helps students who may not have access to a computer at home.

While there are challenges to coordinate the program, like ensuring students have

bus transportation home after school, Dr. Reardon said the results have been well worth it.

“Another great thing is Homework Center has increased parent communication,” added Dr. Reardon. “Teachers will often tell parents they’re going to have their student stay after school to provide additional help. It creates an opportunity to discuss challenges a student may be having.”

