

Never too early to learn

State increases focus on
early-childhood system

BY MEAGHAN CASEY

One of the most important investments Delaware is making is in its youngest children.

In April, Governor Jack Markell presented a long-term, strategic plan to strengthen and sustain the state's early childhood system. Developed by the Delaware Early Childhood Council, the plan focuses on whole-child development, family engagement and community collaboration to reach milestones and meet established goals over the next five years.

"Our vision is to create the nation's finest early childhood system where quality programs prepare all of our children for success in a competitive, global economy," said Markell. "Early childhood development is fundamental not only to later educational success but virtually all facets of a child's health, prosperity and quality of life. Studies show that children receiving quality early care and education are more likely to be successful in school, become better citizens, earn greater wages, contribute more to their communities and require less government support.

Education is not only our moral obligation — our state's economic future depends on it."

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Ja'Nye Clayton is happy to be learning at St. Michael's School and Nursery in Wilmington.

PHOTOS: JASON MINTO

Giving teachers tools to succeed

A bill drastically strengthening the way higher education prepares teachers in the state of Delaware is now law.

On June 12, Gov. Jack Markell signed Senate Bill 51, intended to improve teacher training, require that prospective teachers complete a rigorous assessment and track performance of all preparation programs in the state.

"Growing Delaware in this fast-moving economy depends on having an education system that prepares our students to out-compete and out-innovate their peers around the world," said Markell. "The research on how we tap into the talents of Delaware's future workforce is clear — teacher quality is the single most important school factor in a student's academic

success. The law being signed today represents a vital step in elevating the teaching profession by ensuring our educators have the skills they need to excel in their essential mission."

"We need to make sure our new teachers are well prepared to get our children ready

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New year a time to reflect, look forward



Mark Murphy

The start of a new school year is exciting. You have classes of new faces, children whose lives you will impact greatly in the coming months.

With the start of the school year comes the opportunity for all of us to assess where we are and where we need to progress. As we do this, we must set aggressive goals for each student. This starts at the individual level -- each of your goals feeds into our collective aspirations for student growth and achievement.

We can start by reflecting on where we are now. In July, the state released the 2013 Delaware Comprehensive Assessment System (DCAS) results, showing that, overall, the state sustained the great gains in student proficiency made in 2012: 72 percent of students scored proficient on the reading test in 2013 as compared to 61 percent in 2011. And 70 percent were proficient in math this year, up from 62 percent in 2011.

One of the most exciting results we saw in 2013 was a higher percentage of students reaching their individual growth targets in reading and mathematics compared with last year, increasing from 65 percent to 68 percent in reading and 60 percent to 62 percent in mathematics.

Individual growth targets were developed in 2012, making this year the first opportunity to see our collective success in this measure of improving skills among everyone. Delaware has placed significant emphasis on this data to determine schools' progress in educating all students, including whether students who start the year significantly below the proficiency mark get closer to that goal and whether those who reach proficiency in the fall also improve throughout the year. Our 2013 results show success in this area and support the state's continued focus on growth as a measure of student success.

As we reflect on this year's results, we also have the opportunity to ask ourselves: What are the ultimate goals for our students and are our individual and collective goals high enough? Based on what we learned from recent initiatives beyond the DCAS results I mentioned above -- specifically the College-Going Diagnostic, an analysis of SAT data and the TELL Delaware survey -- we still have a lot of work ahead. But each of the indicators provides opportunities as we seek to set individual goals that will make a difference for every student.

College-Going Data

The College-Going Diagnostic is the result of a partnership with Harvard University's Strategic Data Project and examines students' progression through high school, how well they stay on track for graduation and whether they enroll and persist in postsecondary education.

The full presentation is on our website (www.doe.k12.de.us), and I really encourage you to look at it. The slides tell a sobering story:

- ◆ Statewide only 30 percent of Delaware's ninth-graders seamlessly enroll in college and remain there by their second year;
- ◆ The percentage is lower among certain groups of students: 17 percent of low-income ninth-graders persist to their second year of college; 35 percent of white ninth-graders remain in college by their second year, as compared to 14 percent of Hispanic and 22 percent of black ninth-graders.

These are just a few examples of the findings from this analysis, which will help the state better target efforts to reach students who could benefit the most and to meet the ambitious goals we set for ourselves. The overarching goal is to graduate every student from our system prepared for college or career. We know we aren't there yet.

College-readiness

According to College Board, an SAT score of 1550 (out of 2400) is an indicator of college readiness. A recent analysis (http://www.doe.k12.de.us/tleu_files/The_June_Set_2013.pdf) by the state looked at 11th grade students' scores on the SAT in 2013 and compared them with the same students' scores on the 10th grade math DCAS, considering the relationship between DCAS proficiency and college readiness. It found that while most Delaware high schools have large portions of their students scoring proficient on DCAS math in 10th grade, only a small number of schools have students meeting the SAT College-Ready Benchmark.

We have a lot of work underway to address our children's needs. Key among that work is the implementation of the Common Core State Standards. I'm also excited by the investment in college-level coursework across the state, including more Advanced Placement classes and dual enrollment programs. And, perhaps as important as the rigorous academic skills, are other characteristics you are developing in your students from perseverance to curiosity to self-management. While not measured by a standardized test, you know as well as I do that these types of skills are key to your students' future success.

Your workplace

To best help your students in the areas I mentioned above, I know firsthand the need for workplace support. The TELL (Teaching, Empowering, Leading and Learning) Delaware survey has given us more information on how schools, districts and the state best can meet educators' workplace needs. While the survey found a majority of teachers feel their schools are a good place to work and learn, it also revealed that more work is needed to improve teacher leadership opportunities, differentiate

professional development to educator needs, reduce the amount of paperwork and improve educator induction and mentoring.

If you haven't already, please take a moment to look at the results that reflect your direct input and that of your peers, including breakdowns at district and school levels, at www.telldelaware.org/results. Just as we are using this information to inform our work at DOE, I have challenged your local leadership to use these data to address the district and building's needs you identified.

All of this is exciting stuff. I'm proud of what is happening in buildings throughout Delaware and look forward to how you will further that work in the year ahead. So as you enter this coming school year, I hope you will make time to give the goals you set for your students serious consideration. Spend time in your professional learning communities discussing them and work with your school leadership on building-wide alignment. Benchmark your student performance not just to your own school but to the globally competitive world they will find themselves in a few years from now.

DPAS II

As you set your goals as part of DPAS II in your fall conference, keep your students front and center. Find a way to measure success in a meaningful way. Our guiding principles of Component 5 and DPAS II overall remain the same as I communicated to you a year ago: fair, transparent and easy to understand, respectful and -- most importantly -- conscious of the impact on students.

There will only be a few changes to the DPAS II system this year in the spirit of continuous improvement and in providing you the observation and feedback experience that each of you deserves. Most notably, we have prioritized the usage of the DPAS II rubrics this year. Evaluators will be required to identify your areas of strength and growth along the rubric in each criterion along the continuum. The State Board of Education also approved the opportunity for all educators to become credentialed observers, for districts to shorten the rubric if so desired and for evaluators to have more discretion in what type of observation they employ and how to best utilize improvement plans when needed.

Setting goals for your students

While these changes to the evaluation system will matter to you as educators, nothing is more important than setting measurable, ambitious goals for your students. So take that challenge. Challenge your students, yourself and your school. We are making progress but we have much more to make. We can only do it if we continue to push one another forward together.

Mark Murphy is Delaware Secretary of Education.

Bringing Common Core standards to life

Common Ground for the Common Core is an 18-month project designed to support the implementation of the Common Core standards through a network of guiding teams. The project will help bring teachers up to speed on what the standards are and what should be covered, as well as changes that are necessary to ensure they successfully roll out and benefit students.

In March, more than 700 educators from 143 Delaware schools gathered for an all-day training event. Dr. Tim Shanahan, professor of Urban Education at the University of Illinois at Chicago, where he is director of the UIC Center for Literacy,

served as the keynote speaker. Shanahan, a former first-grade teacher, spoke about "The Common Core: A Nation-Wide Vision that takes a School-Wide Effort." The day also included breakout sessions differentiated by grade level (elementary and secondary), subject area (English language arts and mathematics) and level of implementation (awareness building, deepening understanding).

Guiding teams of educators were asked to submit school implementation plans by June 30, refine the plans over the summer and put them into action during the coming school year. The plans are intended to:

- ◆ Identify and develop school structures to build and support a school-wide Common Core culture;
- ◆ Ensure teachers receive the correct messages and training;
- ◆ Provide expert knowledge of the standards--what they really imply for teaching and learning;
- ◆ Identify the characteristics of effective teaching and learning within the standards;
- ◆ Train teachers in the use of tools to identify materials supporting the teaching of Common Core;
- ◆ Translate standards into concrete

instructional best practices;

- ◆ Foster the development of local assessments to determine if students are on track and initiate intervention practices when they are not.

Schools were encouraged to work with other schools within and/or across districts.

"I have every confidence that Delaware can and will lead the country in bringing these standards to life, and when we do it, it will be because of the local learning communities translating these standards into exciting new ways of preparing our students for opportunities after high school," said Secretary of Education Mark Murphy.

Meet the State Board of Education

In collaboration with community and stakeholders, the Delaware State Board of Education serves as the primary voice for Delaware citizens on education policy to create a world-class education system for every student.

The State Board is comprised of seven members appointed by the governor and confirmed by the state senate. While much of the Board's monthly meeting time is spent performing its statutory responsibilities such as reviewing and approving department and Professional Standards Board regulations and authorization and oversight for charter schools, the Board has defined its purpose and leadership through the adoption of a well thought-out and clearly articulated vision and mission as well as long-range goals that impact all aspects of public education in the state.

Its guiding principles are to:

- ◆ Further a thriving democratic society with opportunities for an excellent and equitable education for all students;
- ◆ Enrich education policymaking with the inclusion of diverse perspectives that represent the breadth and depth of Delaware's citizens;
- ◆ Utilize research-based viewpoints to inform decisions in the best interest of all students;
- ◆ Advocate for the development of the whole child through learning, teaching and community engagement.

One of the primary functions of the Board is to assist the Secretary of Education in the development of policy. Members are responsible for providing the Secretary with advice and guidance with respect to education policies, new initiatives, annual operating budget and capital budget requests, preparation of the annual report, boundaries of school districts, implementation of the statewide assessment program, and controversies or disputes involving local district administration or boards.

All Board meetings are open to the public, with monthly meetings usually scheduled for the third Thursday of the month, beginning at 1 p.m. in the Cabinet Room on the second floor of the Townsend Building in Dover. To contact the Board, e-mail or call Executive Director Donna Johnson at Donna.Johnson@doe.k12.de.us or 302-735-4010.

DR. TERI QUINN GRAY, PRESIDENT



Dr. Teri Gray was appointed President of Delaware State Board of Education by Gov. Jack Markell in 2009 and co-chair of the Delaware STEM Council in 2012. Dr. Gray is New Product Commercialization Manager & Six Sigma Consultant with DuPont Crop Protection where she leads

cross-functional teams that span Asia, Europe, Latin and North Americas. She currently serves on the Board of Directors for the U.S. Education Delivery Institute, serves on the Board of Trustees for the University of Delaware, and on the Committee of Distinguished Advisors to the Department of Chemistry & Biochemistry at the University of Maryland, College Park. She is chair of the American Chemical Society Diversity & Inclusion Advisory Board and consultant with the ACS Women Chemist Committee.

Prior to joining the State Board, she served as a leader within the Delaware State Parent Teacher Association (PTA) and local school chapters. She has served on the state PTA's Vision 2015 Executive Leadership Academy and participated in the 2008 National PTA Emerging Minority Leaders Conference.

Dr. Gray is a native of Jackson, Miss. where she graduated magna cum laude from Jackson State University with a bachelor's degree in chemistry. She earned a Ph.D. in analytical chemistry from the University of Maryland and

worked as a National Research Council Postdoctoral Fellow at the National Institute of Standards & Technology prior to joining DuPont in 1997. She and her husband, Bernard, have one son and live in Newark.

JORGE MELENDEZ, VICE PRESIDENT



Jorge Melendez is assistant vice president and branch manager of the Selbyville Branch of Baltimore Trust Co. He joined the company in 1992 as a bilingual teller. He is a community member of the Indian River School District Consolidated Application Committee as well as a

community member for the district in the Executive Leadership Program through the Darden Business School at the University of Virginia. He currently serves on the NASBE public education committee.

Melendez graduated with honors from Theodore Roosevelt High School in New York City and attended Fordham University for three years, but left to provide financial help for his mother. He and his mother moved to Seaford in 1990. He continues to reside in Seaford with his wife, Carol, and his stepdaughter, who graduated from Indian River High School and the University of Maryland and is currently pursuing a master's degree in education.

GREGORY B. COVERDALE JR



Gregory B. Coverdale Jr. is the father of two children and the co-founder and managing principal of Civitas Partners, LLC. Prior to establishing his company, he worked at Merrill Lynch, specializing in investment management and income planning. He serves on the finance

committee for the National Association of State Boards of Education. He has been a trustee on such nonprofit boards as the Delaware Nature Society, the Delaware Center for Contemporary Arts and the Brandywine YMCA. He earned his bachelor's degree in business administration from Delaware State University. A native of Delaware, he graduated from William Penn High School in 1994. He has served on the Board of Education since 2010.

G. PATRICK HEFFERNAN



Pat Heffernan was appointed to the State Board of Education in 2008. After graduating from Concord High School in the Brandywine School District, he earned his bachelor's in chemistry from the University of Delaware. He is employed as a manager in the information

technology field and has worked at IBM, Siemens, EDS and a private consulting firm. He lives with his wife, Debra, and his three school-aged children in the Brandywine District.

Heffernan served on the Governor's Advisory Council for Exceptional Citizens (GACEC) and was chairman of the council's Policy and Law Committee from 2007-08. A key function of the GACEC is to provide input and comment on bills and regulations affecting the education of students with disabilities. He also worked with other community members and Brandywine district staff to develop the Brandywine School District's current five year strategic plan and is co-president of the Brandywine Special Needs PTA. He coached an Odyssey of the Mind team from Harlan Elementary and has been active in programs at the YMCA.

RANDALL L. HUGHES



R.L. Hughes is a deputy principal assistant for the Delaware Department of Safety and Homeland Security. In this role, he provides policy advice regarding law enforcement administration and practical project implementation strategies. Prior to the appointment, he served as a Delaware State Trooper, retiring in July 2009 at the rank of major.

Hughes also served on the Indian River School Board from 2006-12. During his tenure with the school board he served as vice president of the board, chairperson of the Finance Committee, a member of the Building and Grounds and Comprehensive School Safety committees. He currently serves on the NASBE board of directors.

A graduate of Sussex Central High School, Hughes holds a master's in public administration from Wilmington University. He and his wife, Stephanie, a teacher at East Millsboro Elementary School, live in Millsboro. They have two daughters, Julie and Katie, who attend the University of Delaware and Salisbury University, respectively.

BARBARA B. RUTT



Barbara Rutt was appointed to the State Board of Education in 2005. She received her bachelor's in English from Washington & Jefferson College and later served on the board of trustees of her alma mater. She also holds a J.D. from the Dickinson School of Law. Before moving to

Delaware in 1988, she practiced law in Pennsylvania. She is currently an adjunct faculty member at Wesley College.

Rutt served on the Milford School District Board of Education from 1991-2001, holding the offices of president and vice-president. As a participant in the Delaware Leadership Academy, she worked with a committee to strengthen board/superintendent relations. She has also been a member of the Delaware Department of Education Licensure and Certification Committee. She is the State Board delegate to the Delaware School Boards Association and has been appointed to the Regional Advisory Board of the Mid-Atlantic Comprehensive Center at the George Washington University Center for Equity and Excellence in Education. She and her husband, David N. Rutt, live in Milford and have one son, Andrew.

DR. TERRY M. WHITTAKER



Dr. Terry Whittaker currently serves as the assistant provost for Student Diversity and Success at the University of Delaware. In this role, he leads, manages and evaluates university-wide student diversity and academic success initiatives. A University of Delaware administrator for 24 years,

Dr. Whittaker served in the Lerner College of Business and Economics for 11 years.

Dr. Whittaker serves on the civic boards and committees for numerous organizations, including the Metropolitan Wilmington Urban League, United Way of Delaware, Christiana Care Health System, Forum to Advance Minorities in Engineering and the Aberdeen Civic Association. He holds a bachelor's degree in sociology from the University of Wisconsin, a master's in educational psychology from the University of Minnesota and a doctorate in administration and policy from the University of Delaware. He and his wife reside in Middletown.

TEACHERS TEACHING TEACHERS

Mentoring program valuable for newcomers

By MEAGHAN CASEY

The first day—or weeks—of school may bring on jitters even for those standing at the head of the class.

New teachers often have the challenge of acclimating to school, district and state policies and procedures, in addition to building new relationships with their students. To guide them through the process, the Delaware Department of Education provides a three-year mentoring and induction program for educators new to the profession who are employed in a public school within the state.

The Comprehensive Induction Program for Teachers (formally Professional Mentoring and Induction Program) is designed to:

- ◆ Provide every new teacher/specialist with a mentor who will serve as an advocate and coach;
- ◆ Assure a seamless alignment between the five components of the Delaware Professional Appraisal System II (DPAS II) and the mentoring and induction process;
- ◆ Develop “assessment literate” new teachers/specialists who are able to review and design assessment to accurately measure student growth over time;
- ◆ Build reflective practitioners who are able to review their present level of professional performance and use that data to set goals for future professional development.

During the first few weeks of school, mentors will help new educators secure materials such as supplies, curricular guides and other resource materials, and confirm that

they have the appropriate technology, books and professional materials. They will also discuss specific guidelines, responsibilities and events that are unique to their school, make introductions to other staff members and identify key locations in the building, such as the library, cafeteria and playground. They are responsible for assuring their mentees that they understand the emergency policies and procedures and helping them with other needs as identified on-site.

For special education teacher Angel Mills, who was new to Banneker Elementary in Milford last year, the experience has been invaluable. Mills was paired with special education coordinator Laurie Moorman, a 16-year veteran teacher who has mentored for the past 10 years.

“It’s a tremendous help to consult with Laurie on just about every issue,” said Mills. “She’s done more than just mentor me — she’s gone above and beyond.”

“It keeps me on my toes as well,” said Moorman. “Being fresh out of school, Angel brings new strategies and ideas to the classroom.”

Mills completed the first two cycles of the induction program last year, which consisted primarily of observations, shared lesson planning and workshops. The observations periods were particularly helpful.

“It was eye-opening to watch Laurie take control of the class,” said Mills. “You never know what to expect, but she always has a plan B or C.”



Laurie Moorman, left, a veteran teacher at Banneker Elementary School in Milford, was a mentor to first-year teacher Angel Mills.

Moorman agreed that certain classroom management skills come with experience.

“You have to be flexible because what you expect isn’t always going to happen,” she said.

This year, as part the third cycle, Mills will be part of a learning team consisting of no more than eight teachers. The team members will review the essence of assessment for and of learning and discuss how the two play out in their classrooms. They are required to implement strategies and indicate their

effectiveness on student growth.

The fourth and final cycle of the program focuses on new educators being able to assess their development in content knowledge and pedagogical skills. As this is a professional development requirement, sites may design the experiences for them to develop skills and knowledge aligned to the site needs. These may include book studies, lesson study, action research and other topics.

2014 Delaware Teacher of the Year nominees

Appoquinimink School District: Lea Wainwright, French teacher at Appoquinimink High School

Brandywine School District: Linda Lobach, reading specialist at Claymont Elementary School

Caesar Rodney School District: Andrea LaMotte, grade 6-8 special education teacher at Charlton School

Cape Henlopen School District: Allison Peet, grade 4 math and English language arts teacher at Milton Elementary School

Capital School District: Mary Petrucci, grade 3 teacher at Hartly Elementary School

Christina School District: Thomas Koliss, mathematics teacher at Newark High School

Colonial School District: Tara Amsterdam, grade 4 teacher at Wilbur Elementary School

Delmar School District: Emily Ritchey, Spanish teacher at Delmar High School

Indian River School District: Lori Hudson, grade 4 teacher at Showell Elementary School

Lake Forest School District: Joshua McDuff, social studies teacher at Lake Forest High School

Laurel School District: Kaitlin Callaway, grade 3 teacher at North Laurel Elementary School

Milford School District: Judith Bruns, agriscience teacher at Milford High School

New Castle County Vo-Tech School District: Jennifer Immediato, emergency medical services teacher at St.

Georges Technical High School

POLYTECH School District: Jennifer Bradshaw, algebra and geometry teacher at POLYTECH High School

Red Clay Consolidated School District: Edward Killheffer, grade 10-12 mathematics and social studies teacher at Cab Calloway School of the Arts

Seaford School District: Natalie Cullen, music teacher at Blades Elementary School

Smyrna School District: Lisa Uhey, grade 5 English language arts teacher at Clayton Intermediate School

Sussex Technical School District: Deborah Long, social studies teacher at Sussex Technical High School

Woodbridge School District: Daniel Bryant, grade 4 teacher at Woodbridge Elementary School

iEducate honors unsung heroes

BY MEAGHAN CASEY

Every success, no matter how small, deserves a celebration.

Sarah Preston, an autism support teacher at Bush Early Education Center in the Brandywine School District, believes in and follows that philosophy every day when interacting with her students.

“The students I work with are extremely unique,” said Preston. “The complexities of autism keep me learning everything I can to help them to become the best they can be. I need to be ready to change how and what I teach at any given moment. Every moment in my classroom — from the moment the bus arrives to the moment it leaves — is a teachable moment. I teach the skills we take for granted every day, but would be lost without.”

One can easily argue Preston’s successes in the classroom are anything but small, which is no doubt what catapulted her to be named one of five 2012 iEducate Delaware honorees.

Launched last year by the Rodel Foundation, iEducate Delaware honors the unsung heroes of public education who take risks, but have not always gotten the recognition they deserve for their courage and creativity.

Thousands of individuals visited the website in 2012, nominating those who inspired them, voting on their favorites and sharing stories. In the end, five individuals were selected by the community as the first group of honorees. In addition to Preston, the honorees included: Audrey Carey, elementary supervisor for Indian River School District; Margaret O’Dwyer, co-founder of the Delaware Youth Leadership Network; Tracey Roberts, principal at Pulaski Elementary School in the Christina School District; and Lori Roe, instructional technology specialist in the Cape Henlopen School District.

“It was extremely exciting and gratifying, not just for me, but for our whole autism program to be recognized,” said Preston. “People don’t often have a chance to take a glimpse at what we do.”

Preston, who taught the first support class for students with autism that was fully integrated in an inclusive setting three years ago, has developed a number of innovative strategies to strengthen social and communication skills for her students. She has brought in her own iPad, downloading specific software to address the needs of her students, and has also created personalized vocabulary books for each student, based on the Picture Exchange Communication System (PECS).

“We rely heavily on physical and visual prompts to start and work up to using sentence strips,” she said. “We don’t want them to become too dependent on us, but we have to be aware of what they need. My proudest moments are witnessing the firsts for many of my students: first wave ‘hello,’ first words or first independent interaction with a peer.”

As an iEducate Delaware honoree, Preston was presented with a \$2,000 award, which she has used for technology training and purchasing a Kindle Fire for the classroom and equipment for her students’ sensory needs. All five honorees were presented with \$2,000 grants and were recognized at the Vision 2015 fall conference, held at the University of Delaware.

This year’s iEducate Delaware finalists were announced Aug. 13. They are: Dawn Alexander, Tara Amsterdam, Don Baker, Stephanie Barry, Tameca Beckett, Sharon Brittingham, Lane Carter, Matt Farina, Janice Haney, Samuel Heed, Patches Hill, Jacqueline Lee, Jennifer Nauman, Jack Perry, Ashley Sorenson. Public voting will be held through Sept. 8 at www.ieducatedelaware.org. Honorees will be announced in late September.



Sarah Preston, a 2012 honoree, works with Matthew Marchiani at Bush Early Learning Center.



Sarah Preston uses technology with Alex Henry.



Winniv Nganga has made strides with Preston.

Next Generation Science

Embracing science and engineering with open arms

BY MEAGHAN CASEY

During an afternoon visit in May to Amy Stewart's kindergarten class at Booker T. Washington Elementary School in the Capital School District, all eyes were utterly focused on the collapse of a skillfully constructed row of dominos.

"Can we do it again?" one student asked, with eager anticipation.

Earlier in the day, south of town, students in Jacquie Kisiel's fifth-grade class at Rehoboth Elementary School in the Cape Henlopen School District opted to participate in Science Club during recess, rather than play outside.

If those scenes are any indication of the future, the next generation of students will be embracing science and engineering with open arms—and minds—which is exactly the goal of the Next Generation Science Standards (NGSS).

The standards, which identify science and engineering practices and content that all K-12 students should master in order to be fully prepared for college, careers and citizenship, were released in April. For two years, Delaware was one of 26 lead state partners that worked with other stakeholders in science, science education, higher education and industry to collaboratively develop the standards. They were built upon a vision for science education established by the Framework for K-12 Science Education, published by the National Research Council of the National Academy of Sciences in July 2011, and are grounded in a sound, evidence-based foundation of current scientific research—including research on the ways students learn science effectively. The development process was primarily funded by the Carnegie Corporation of New York.

Delaware is currently working to align its state adoption timeline including state review, professional development opportunities and curriculum and assessment material developments to coincide with the anticipated NGSS timeline. In August, the state hosted five public meetings across Delaware on NGSS. Training will take place throughout the 2013-14 school year.

The new standards emphasize that K-12 science education should reflect the real world interconnections in science. STEM practices and crosscutting concepts should not be taught in a vacuum, but should always be integrated with multiple core concepts throughout the year. Students are encouraged to learn through inquiry and investigation.

"The standards are a perfect match for a hands-on approach," said Kisiel. "The team building and scientific exploration that we'll do will engage them in higher order of thinking. When you make the learning fun and experimental, the fear factor is gone. They learn it's

a process to design and build and improve on your original models."

Kisiel tries to incorporate science, technology, engineering and mathematics (STEM) across the curricula, in attempt to reach all learning styles. She applies her lessons to real-life scenarios, engaging students with news and current events, and utilizes three Full Option Science System (FOSS) kits—Ecosystem, Mixtures and Solutions and Motion and Design. She also requires her students to participate in a science fair, following the steps of the scientific method.

"I like building and testing stuff," said student Jayson England, who investigated whether hot or cold water would freeze at different rates.

"We always get to do a lot of fun experimenting," said student Sophie Czerwinski. Her science fair project, titled "Is your brain in mint condition?," tested to see how peppermint oil affects memory.

At Washington Elementary, Stewart, the school's science lead teacher, is excited about the future of STEM education, particularly at the kindergarten level. In her classroom, she introduces her students to the concepts of gravity and force of motion through the Push, Pull, Go unit. Students build structures such as swings and roller coasters using K'NEX, explore motion with dominos and spinning tops and incorporate science into their reading, writing and art.

"They'll write about or do drawings of their inventions afterwards—drawing in perspective and learning how to convey motion in their art," said Stewart. "They're so engaged and inquisitive. They have the biggest questions—some deep, scientific ones. It's the perfect age. They have no fear of science concepts."

Delaware has been proactive in its attempts to engage students in STEM education in recent years. In 2010, Governor Jack Markell signed an executive order creating a statewide STEM Council in order to improve STEM education in Delaware and increase student enrollment in STEM careers. The STEM Council recently launched a website — www.DelawareSTEM.org.

"STEM subjects span an incredible number of careers, including traditional fields, such as agriculture, medicine, engineering and economics, and many that we haven't yet imagined," said Markell. "These subjects are integrated into our lives and our economy—we owe each of our students a strong foundation in STEM to empower them to innovate and compete."

In 2011, Delaware furthered its commitment to STEM by becoming the first state to introduce Engineering is Elementary® (EiE) curriculum into all its elementary schools. The curriculum integrates engineering and technology with science, language arts, social studies and math via storybooks and hands-on design activities for students in grades 1-5.



Christopher Mandalas, left, and Frank Henry V play with K'NEX and dominos to learn about motion at Washington Elementary.



Andrew Ponzo, left, and Jarion Lewis design a structure with K'NEX at Washington Elementary.

Dekari Staton, left, and Janiah Brinkley spin tops in Amy Stewart's class at Booker T. Washington Elementary School.

PHOTOS BY JASON MINTO



Students in Jacquie Kisiel's fifth-grade class at Rehoboth Elementary School design and test lunar vehicles. From left, Sophie Czerwinski, and Savas Sirin time the speed of their vehicle; Costa Roros and Richy Gentner work on assembly; Jayson England sets his car in motion.

State teams with Harvard on college-readiness project

Delaware has taken a major step toward improving low college graduation rates that are holding back the capabilities of its workforce.

On July 16, Gov. Jack Markell and Secretary of Education Mark Murphy joined researchers from the Strategic Data Project (SDP), a program of the Center for Education Policy Research at Harvard University, to release findings on Delaware students' college readiness, enrollment and retention, presenting one of the first thorough analyses done for any state by SDP. The project continues the data-driven approach to student achievement that helped Delaware win the Race to the Top federal funding competition.

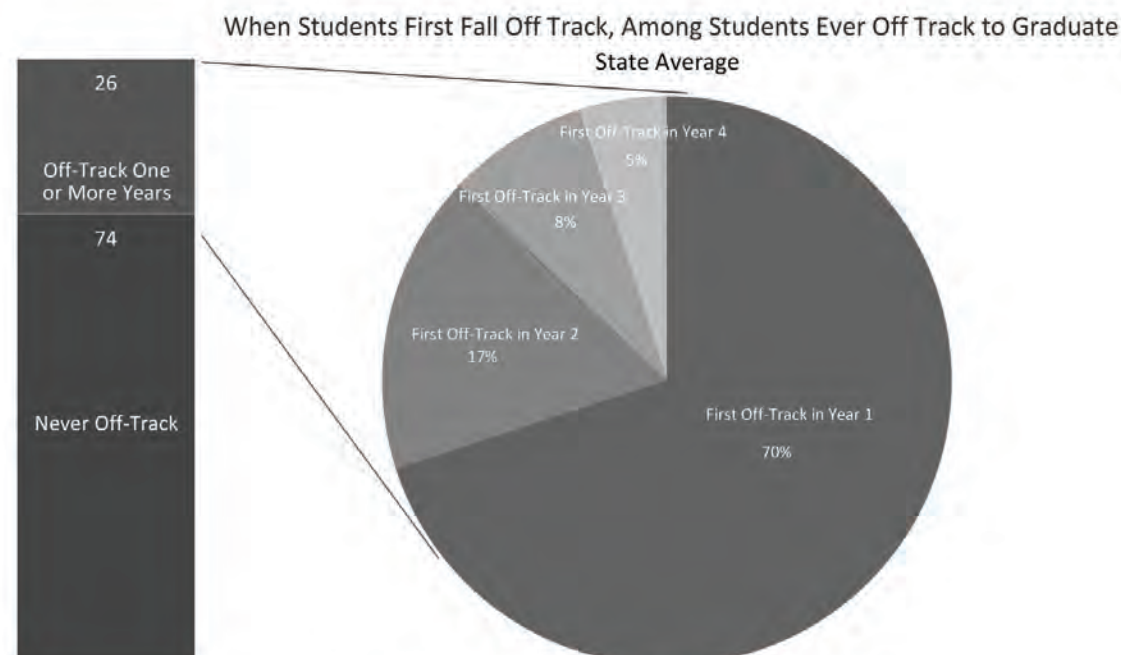
With the National Student Clearinghouse Research Center reporting barely half of college freshmen in the country earning a postsecondary degree within six years and the National Center for Higher Education Management Systems finding that only 20 percent of high school freshmen reach that important milestone, Delaware partnered with SDP to document and better understand outcomes among Delaware's young people. The state will use this analysis to inform policy initiatives to improve high school graduation, increase enrollment in college and other career pathway programs and improve college retention rates in partnership with districts and charter schools.

"To give Delawareans the best opportunity to succeed in the global economy and to build a workforce that attracts new and expanding companies, we must give our young people the best chance to graduate high school and successfully pursue further education and training," Markell said. "Our strategies to improve educational opportunities can only succeed if we fully understand the obstacles that prevent students from reaching their potential. The data released gives Delaware an advantage in determining the most effective way forward."

Delaware College-Going Diagnostic: An Analysis of The First State Students' College Readiness is the result of work between SDP and the Delaware Department of Education (DDOE) using six years of data from the DDOE and the National Student Clearinghouse. The diagnostic examines students' progression through high school, how well they stay on track for graduation, and whether they enroll and persist in postsecondary education.

The diagnostic found some recent progress, including a steady increase over the past four years in the number of high school freshmen who remain on track for graduation.

In 2008, 19 percent of ninth-graders finished the year behind,



Sample: 2007-08 first-time ninth-graders. Students who transferred out of the district are excluded from the sample. All data from administrative records. Results shown only for comprehensive, vocational, and magnet schools.

as compared to 12 percent in 2012. During that time and in conjunction with their Race to the Top plans, several Delaware school districts have implemented "Ninth Grade Academies," summer preview programs and other initiatives that provide more individualized attention to freshmen and help with the transition from middle school to high school.

The data show that when students fall behind in credits by the end of ninth grade, only 30 percent graduate on time and half drop out.

The data support the importance of strengthening transitions from middle to high school and offering more support for freshmen: Most students who fall behind do so during freshman year (70 percent) while a much smaller percentage fall off track in Year 2 (17 percent), Year 3 (8 percent) or Year 4 (5 percent).

Overall, the statistics unveiled will allow the state to better target particular efforts to the students who would most benefit.

The analysis shows great variation in the percentage of

students who progress from ninth grade into college among high schools. The highest high school rate shows 81 percent of ninth-graders persist to their second year of college. The lowest high school rate is 4 percent.

The analysis suggests it is critical to catch students up who are behind in middle school: Students who performed better in eighth grade are much more likely to graduate high school on time and progress to college.

Highly qualified low-income students are more likely to 'under-match' in their college choices.

While statewide 30 percent of Delaware's ninth-graders remain in college by their second year, the percentage is lower among students who come from low-income families and students of some racial subgroups.

To see the full presentation visit www.doe.k12.de.us/DEDOE_CG_final_slides_public_release_full_deck_07112013.pdf

One application, all jobs

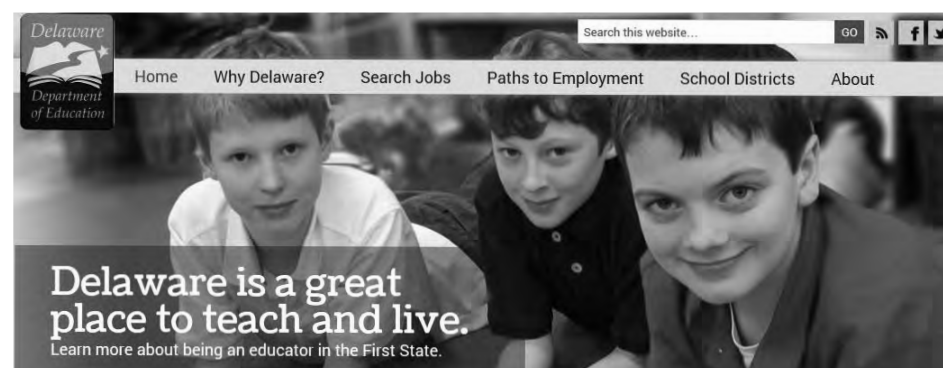
Recruiting and retaining high-quality educators remains a priority for the Delaware Department of Education (DDOE).

In August, the DDOE went live with its new teacher recruitment portal — on the web at joindelawareschools.org. Applicants now have a one-stop site to look for and learn about education jobs in the state, rather than checking every district and charter's individual site. To date, seven districts and 12 charters have signed on to pilot the portal. By 2016, all districts and charters will be expected to utilize the site.

"The goal is to have a central hiring website for prospective teachers, with one common application for every school in every district," said Tasha Cannon, DDOE Deputy Officer, Teacher and Leader Effectiveness Unit. "A great amount of recruitment work will still

take place at the district level with local human resource administrators, but we want to provide easy access to all vacancies and communicate Delaware's vision and culture — so that educators who identify with the vision are compelled to join Delaware schools."

The launch of the website followed the University of Delaware's Institute for Public Administration release of its "Delaware Teacher and Administrator Supply and Demand Survey Analysis Report." Funded by the DDOE, the report is an analysis of a survey of all 19 school districts and 16 of the 22 charter school personnel directors, as well as an analysis of data from the Delaware payroll system. It charts the trends of teacher and administrator hiring, difficult-to-fill positions, late hiring and other factors



important to the success of the state's public schools. The report highlights an increase in earlier hiring for the 2012-13 school year, with 52.9 percent of hires in July or earlier, as compared to 51.4 percent in 2011 and 35.7 percent in 2010.

With the online portal, DDOE hopes to improve upon its recruitment efforts and continue the trend of earlier hiring in the coming years.

"The website is part of a broader

recruitment campaign that aims to attract the caliber of workforce necessary to realize Delaware's vision of a world-class education system," said Cannon.

A formal event to launch the website and recruitment campaign will take place Oct. 1. Additional materials will be added to the site on a continuous basis, such as information about professional development opportunities, state- and district-wide news and events, survey results and blogs written by teachers.

Art lessons extend beyond classroom

BY MEAGHAN CASEY

It's not every day a middle-school student has the opportunity to act as an art docent.

But that is exactly what students at Campus Community School in Dover have had the chance to do as part of the junior docent program at the Biggs Museum of American Art. The program provides students with a unique opportunity to learn about visual arts and history, apply their knowledge to specific works of art and present their knowledge to their peers.

"With our proximity to downtown Dover, it's a huge advantage for our students to be able to walk to museums and historic sites," said Head of School Trish Hermance. "My daughter can still describe to you every piece in the Biggs Museum. It certainly makes an impact."

At the start of the program, students in the junior docent program tour the museum's permanent collection including paintings, drawings, textiles, ceramics, sculpture, furniture and silver. Throughout the next few months, they use time in the classroom and at the museum to conduct research on the objects of their choice, developing scripted speeches for each object. After several rehearsals, the students lead classes of younger students from their school on tours of the museum and present their speeches.

"I like the independent work we do and the feeling of responsibility when we present to the public," said junior docent Ronnie Griffin, who starts high school this year.

"I learned stories about artwork that I never knew," said seventh-grader Trinity Marler, who has taken a special interest in modern art.

"I love learning the history of art," said fellow docent Delaney Sullivan, who is in grade 8.

During the program, the junior docents also meet after school to create artwork related to or inspired by their objects, under the direction of Campus School art teacher Jennifer Boland. At the conclusion of the program, they have the opportunity to showcase their artwork in an exhibition at the Biggs Museum. This year's group of eight students displayed four to five pieces each at the exhibit, which ran from May 10 through June 30. The school also hosted an event on May 30 with additional student artwork.

"It's wonderful for them to show off their talents across the board, and for parents to see their children in a different light," said Hermance. "Plus they're able to gain confidence in their public speaking skills, which is invaluable."

The program is made possible, in part, by a grant from the Delaware Division of the Arts, a state agency dedicated to nurturing and supporting the arts.



Aspiring artists Ronnie Griffin, left, and Delaney Sullivan pose with their paintings.



Art teacher Jennifer Boland discusses Robert Reid's painting "Summer Girl" with Campus Community School students, from left, Trinity Marler, Delaney Sullivan and Ronnie Griffin.



Daniel Baek, a student at St. Michael's School and Nursery in Wilmington, plays with a toy shark.



On a visit to St. Michael's School and Nursery, U.S. Secretary of Education Arne Duncan meets one of the youngest attendees.

State increases focus on early-childhood system

EARLY LEARNING: from Page 1

The plan includes four strategic goals:

- ◆ Creating an environment where Delaware children become the healthiest in the nation— physically, emotionally and behaviorally;
 - ◆ Providing all Delaware children with access to high-quality early childhood programs and professionals;
 - ◆ Creating a system that enables all children to arrive at school ready and eager to succeed and prepares K-12 schools to further enrich their early learning;
 - ◆ Developing and sustaining programs and partnerships that address the comprehensive developmental needs of all children.
- Accompanying those goals are strategies and objectives for implementation, including:
- ◆ Strengthening developmental screening and access to health services for young children;
 - ◆ Ramping up participation in Delaware Stars, the state's quality rating and improvement system for early childhood providers;
 - ◆ Offering professional development and wage enhancements for early childhood teaching professionals;

◆ Building bridges between the early childhood and K-12 systems using cross-sector professional development and the Delaware Early Learner Survey at kindergarten entry.

"This strategic plan charts a clear path for us to follow," said Jennifer Ranji, Secretary of the Department of Services for Children, Youth and Their Families. "If we help children succeed when they're young, we can make the hurdles they face more surmountable and their full potential achievable. We owe them our best efforts."

The unveiling of the plan occurred immediately following a visit by U.S. Secretary of Education Arne Duncan, who toured St. Michael's School and Nursery in Wilmington to observe its early learning program. St. Michael's, a year-round school for newborns through grade 2, is a recipient of the Governor's Award for Excellence in Early Care and Education and is a Delaware Stars Quality School, reaching Level 3 last year.

"We're in a much better place than a year ago, and a lot of that is thanks to Stars," said Molly Van Sickle, project director at St. Michael's. "This is where children build their education, so we're 100 percent behind the

intentions of quality improvement. Having a high-quality education available is so crucial to their kindergarten success, as well as their third-grade success when they move on."

"What we want as a nation is a well-educated citizenry, a well-trained workforce, with creative, innovative, problem-solving workers, and a cohesive, inclusive society of economic and social mobility," said Harriet Dichter, Executive Director of the Office of Early Learning. "It takes leadership at all levels for this to occur. So many partners here in Delaware understand the role of early childhood education in reaching these goals, with excitement among all of our leaders."

Funded by the Delaware Department of Education and the Office of Early Learning, with the strong participation of several community partners including the Delaware Institute for Excellence in Early Childhood, Children and Families First, Easter Seals and the Delaware Association for the Education of Young Children, Stars received a major boost with \$22 million earmarked for early childhood education in 2011 and \$50 million in federal funds won by the state in the Race to the Top Early Learning Challenge. It establishes standards for programs on a 1-to-5

scale, with 5 stars at the top, and focuses on improving quality in the areas of learning environment, professional development, family engagement and business and management practices. Stars has a strong base of relationship-based, personalized, technical assistance and incentive-based program and financial resources to support schools.

Complementing Stars, an annual investment of \$1.9 million will allow 10,000 Delaware students in the early grades to participate in Delaware's World Language Immersion Program throughout the next decade. Students enrolled in the program spend half their school day learning science, social studies and math in either Mandarin Chinese or Spanish.

The state could be eligible for additional funding through President Obama's Preschool for All initiative. The President's 2014 budget proposes \$75 billion over 10 years to create new partnerships with states to provide high-quality preschool for all four-year olds. The funds could help the state create new child care-Head Start partnerships for infants and toddlers and expand the Home Visiting programs.

Giving Delaware teachers the tools to succeed

TEACHERS: from Page 1

to face an increasingly challenging world," said Sen. David Sokola, who sponsored the new law. "It is our hope that this new program will help grow our efforts to have the nation's best-prepared and qualified teachers."

The legislation establishes high-quality student teaching

experiences, ongoing evaluation of prospective teachers and specific literacy and math instruction geared to the needs of elementary school teachers. In addition, Delaware's new teachers will have to hold a grade point average of at least 3.0, or a GPA in the top 50th percentile for coursework completed during the most recent two years of education, and pass

assessments of their content knowledge and performance before licensure.

"Strengthening teacher preparation goes hand-in-hand with adequate, meaningful support for new teachers, dedicated recruitment of minority candidates, upgrading starting salaries, and creating career advancement opportunities that keep teachers involved in

teaching," said Delaware State Education Association President Frederika Jenner.

Jon Sell of Sussex Tech, who was named Delaware's 2013 Teacher of the Year, also spoke in favor of the new law.

"The teaching profession has changed dramatically in the 21st century, and it requires specialized skills covering a wide variety of

areas," said Sell. "Ensuring our teachers enter the profession armed with those skills should be a key focus so that our students can receive the very best education possible. Preparing and retaining highly qualified teachers in Delaware needs to be a central focus if we aim to make our schools national models of excellence."

Around Delaware Schools

The Charter School of Wilmington in the Red Clay Consolidated School District was honored as part of the 41st annual Jefferson Awards, among the highest national honors for community service and volunteerism. More than 325 high schools across the country participate in the Jefferson Awards Students in Action program. Charter School of Wilmington was selected at the 2013 Regional Competition by a local panel of judges for best showcasing the seven goals of the Students in Action program and for the students' philanthropic contributions to the community. Students partnered with a local organization to lead a statewide high school canned good and frozen turkey Thanksgiving drive and went door-to-door to help distribute the turkeys to more than 2,000 low-income seniors in Wilmington. The school also hosted its first-ever high school dance marathon benefiting the Andrew McDonough B+ Foundation, which was founded in Delaware to support children with cancer. The school raised more than \$11,200, exceeding an original goal of \$10,000. Jennifer Silverman, John Connolly, Kaitlin Reid, Kathy Yuan and Charlotte Abbott represented the school in Washington, D.C., to pick up the award.

Delaware Nature Society provided outdoor learning experiences for 1,892 second- and seventh-grade students in **Seaford School**

District. Students were involved in planning Rain Garden Habitats at each elementary school in the district, and seventh-graders took field trips to the Chesapeake Watershed area to conduct water quality testing. Partnerships included NOAA, National Wildlife Federation, DNREC, Sussex Conservation District, Delaware National Estuarine Research Reserve and Delaware Nature Society.



The Laurel School District has been selected by Project Lead the Way (PLTW), a leading provider of rigorous and innovative Science, Technology, Engineering and Mathematics (STEM) education curricular programs used in

middle and high schools across the United States, for the 2013-14 school year to pilot PLTW course at the elementary level. The pilot courses will be conducted at Dunbar Elementary School, North Laurel Elementary School and Laurel Intermediate School.

More than 619 students and advisors from 34 chapters across the state recently attended the 2013 **Delaware Technology Student Association** State Conference (www.detsa.org), many bringing home honors. This year's conference had a record registration with more than 1,430 entries in all of the competitive events that are related to technology, innovation, design and engineering.

The Technology Student Association is a career and technical student organization dedicated to students interested in the invention and innovation of technology. Through TSA, members have the opportunity to participate in a vast amount of technology-focused competitive events, take part in community service work and become leaders for the organization in their school, state and nation. TSA expands on the curriculum of technology education classes and emphasizes the importance of knowledge, leadership and teamwork.

Students from across the state competed with each other in events covering areas including

computer aided design, digital video production, engineering design, flight, inventions and innovations, magnetic levitation vehicles, rocketry, structural engineering, system control technology and technological problem-solving. Each TSA competitive event requires students to apply technology, solve technical problems, conduct research and invent solutions.

Additionally, **Appoquinimink High School** was recognized for its outstanding spirit and honored with the 2013 Delaware TSA Chapter Spirit Award.

Delaware students brought home 14 medals from the recent **SkillsUSA National Leadership Conference**. About 100 students from six technical high schools attended the conference in Kansas City, Mo. Students from Delcastle Technical High School, Hodgson Vocational-Technical High School, Howard High School of Technology, POLYTECH High School, St. Georges Technical High School and Sussex Technical High School competed against nearly 6,000 students from around the country. At the June 28 awards ceremony, 14 Delaware high school students received medals for finishing in the top three places in their respective competition. In addition, 17 Delaware students were finalists, placing in the top 10 nationwide in their respective events.

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Secretary of Education

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Three students win essay contest

Secretary of Education Mark Murphy named three students — one each in three age categories — and their honored teachers as winners of the Delaware Department of Education's Teacher Appreciation Student Essay Contest.

"These student authors tell stories as only they can, providing a glimpse into our classrooms and of the exceptional work of our educators that often goes unrecognized," Murphy said. "Great teaching goes beyond making a classroom inviting and fun. It accelerates student learning, and by these children's own accounts, that is just what so many great educators in our state are doing."

Murphy visited each winner's classroom to deliver certificates and a \$50 gift card to each student writer along with \$100 for each honored teacher.

The winners were:

Second-grader Suhani Bhatt and classroom teacher, Claudia Martin, at Thurgood Marshall Elementary School in the Christina School District.

Seventh-grader Scot Nordmeier and his talent development teacher, Katherine Bin-Yusif, at Gauger-Cobbs Middle School in the Christina School District.

Eleventh-grader Callahan Smith and Cristin Brown, science teacher at Conrad Schools of Science in the Red Clay Consolidated School District.



At left, Secretary Mark Murphy congratulates essay contest winner Suhani Bhatt, her parents and teacher Claudia Martin; below left, Scot Nordmeier won the middle school category for an essay about his talent development teacher, Katherine Bin-Yusif; below right, Secretary Murphy honors Callahan Smith and her science teacher, Cristin Brown.



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T O W E R of possibility

Red Clay targets LEGO world record

BY MEAGHAN CASEY

Students, teachers, administrators and community members of the Red Clay Consolidated School District were prepared to make the seemingly impossible possible.

The district committed to challenging the Guinness World Records for the tallest tower made from LEGO® bricks. The record has been broken 43 times since the first LEGO tower was constructed in Milton Keynes, England in 1980 at a height of 43 feet. The U.S. has only held the record three times, most recently in 2007 at LEGOLAND® California Resort, with a tower standing at 94 feet. In May 2012, South Korea built a 105-foot skyscraper in front of Seoul's Olympic Stadium, only to have the record broken two months later by England's LEGOLAND Windsor Resort. In September 2012, Prague claimed the title with its tower standing at 106 feet, 7 inches.

The Red Clay community hoped to swipe the crown with the construction of a 110-foot tower — approximately five stories high — which was scheduled to be unveiled and measured on Aug. 19. Each school in the district was responsible for building a portion of the tower.

“Under the guise of play, the students learned about design and architecture and the engineering behind how a building supports itself,” said Richardson Park Elementary School teacher Michael Matthews. “They had to make sure there were absolutely no gaps, and they had to play around with different configurations to complete their segments with the amount of bricks they were allotted. There were a lot of math, engineering and science skills that went into this.”

To take on this endeavor, the district relied heavily on the generosity of the community. More than 500,000 LEGO bricks were donated by parents, teachers, businesses and local supporters. Construction began in April and additional “Build Days” have been held throughout the summer. Assembly of the final structure began Aug. 15 at Dickinson High School with the assistance of a crane.

“I want our students to look at this amazing

tower and say, ‘we made that happen,’” said Red Clay Superintendent Merv Daugherty. “Everyone came together and had a part in this, and it just proves that when you set a goal and set your mind to something, you can do anything.”

Once the tower has been disassembled, the bricks will be distributed back to the schools for enrichment activities. A number of schools already have after-school programming such as Bricks 4 Kids and FIRST LEGO League, which would welcome the additional materials. Some may also be sold and the funds will support other educational programs.

For an update on the Guinness World Record attempt, visit www.edline.net/pages/RedClay/LEGO.



Richardson Park Elementary School students, (above) Kasie Kellagher, Nathon Womer, Isabelle Swiger, Evelyn Mercado and Nakasha Williams and (right) Jose Granados and Azim Shad work on their sections of the LEGO project.