

## SCIENCE AT JP2 A MODEL FOR OTHERS

Pope John Paul II High School has joined an effort by the Tennessee STEM Education Center at Middle Tennessee State University to change the way science is taught in Tennessee's high schools.

The STEM Center is using research on the results of a change in science curriculum and teaching strategies at JP2 as evidence in an application for an \$8.5 million grant from the National Science Foundation that would help other schools adopt what JP2 is doing.

"If the data at JP2 is any indication, it makes a significant difference in the achievement of the students," said Tom Cheatham, director of the STEM Education Center at MTSU.

When JP2 opened, its science curriculum and the sequence of classes were similar to other high schools in Tennessee, said Jennifer Dye, JP2's first and only science department chair. But teachers in the department weren't satisfied with the results they were seeing among their students, Dye said. "We went out searching for a solution."

The first step six years ago was to change the order in which the sciences are taught at JP2. Typically, biology is taught to



Science Department Chair Jennifer Dye makes a point during class. Her department has implemented science curriculum changes and teaching strategies that could be a model for other schools across the state.

freshmen, chemistry to sophomores and physics to juniors. JP2 flipped physics and biology.

Physics, the first science, is "so integral to understanding higher level science," Dye said. In studying physics, students

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## JP2 GALA A SUCCESS, BISHOP CHOBY HONORED

Bishop David Choby was the guest of honor at the annual JP2 Gala, held Feb. 11, at Bluegrass Country Club. If you haven't had an opportunity to donate to the Fund for Excellence, make a donation TODAY! Whether \$25 or \$25,000 every gift helps assure the excellence of JP2 continues. Donations can now be made online at [www.jp2hs.org/donate](http://www.jp2hs.org/donate). You can also contact Lori Jones at (615) 590-6004, or by email [l.jones@jp2hs.org](mailto:l.jones@jp2hs.org). Gifts are 100 percent tax deductible.



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**GOLF TOURNEY**

Admissions Office  
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**UPCOMING EVENTS**

**SUMMER CAMP REGISTRATON NOW OPEN**

**REGISTER AT WWW.JP2HS.ORG/CAMP**

***JPII to host Career Fair for alumni***

The Alumni Relations office is hosting its first Career Fair this spring and we need the help of current and past parents! JPII wants to provide an opportunity for our alumni to meet business professionals in Nashville. Networking is a key part of the job search and we want to provide that foundation for our alumni.

We want to reach out to our alumni who are graduating college and beginning the job search or those still in college but are interested in internship opportunities. If you are a part of an organization or business that would be interested in hosting a booth at the Career Fair, please contact Megan Forester at (615) 590-6005 or Megan.Forester@jp2hs.org.

The Career Fair will be held 5:30-7:30 p.m. Tuesday, May 14.

***View Points***

**NEW DANCE, CHEERLEADING COACHES ANNOUNCED**

JPII is pleased announce that it will begin a competitive dance team next year, coached by Mrs. Jamie Jordan. Mrs. Jordan is best known as the coach of the Hendersonville High School "Golden Girls," a team that does exceptionally well in state and local competitions and recently placed 11th in nationals.

"The competitive dance team is the next step in the evolution of a dance program begun five years ago by Mrs. Lynlea Keightley as the Royal Poms," said Headmaster Faustin Weber. "Though the Royal Poms will be subsumed into this new team, I am grateful for the commitment of the small but proud group of young ladies who danced for us this year and for all that Mrs. Keightley has done for us."

"It has been my pleasure to have coached the first dance team at JPII and watch it evolve into the start of a competition team," said Mrs. Keightley. "It was a real highlight to have this year's team take second place in the Cunningham Dance for a Cure Competition. ... I wish the new dance team much success."

Also, the football/competitive cheerleading team will be undergoing a coaching change for 2013-2014. JPII has hired the previous coach Mrs. Erin Riggs for its admissions office next year, and after careful consideration, she has decided it's time to step down. "While this decision has definitely been a difficult one, I believe this opportunity will allow me to serve the larger JPII community."

"I want to genuinely thank you for supporting me as a coach, teacher, and advisor of these girls the last eight years," Mrs. Riggs said. "I believe what I have learned in each of those roles has helped me prepare for this new venture."

Leading our team next year will be Mrs. Jessica Rankhorn, a faculty member in our science department. Mrs. Rankhorn has extensive cheerleader and choreography experience from her eight years as a competitive cheerleader, and she is excited about the opportunity to serve JPII in this new way:

"It is a great honor to lead these wonderful girls. Mrs. Riggs has been an incredible coach and done amazing things with them over the years. I feel very blessed that she will be able to advise me through this new adventure. The girls can expect the same level of excellence in both competition and during football season that has become their trademark. I'm excited to get started!"

**JPII PEOPLE: SCHOOL CONNECTION**

*We hope to highlight the high school careers of some of our students with reference to their "feeder school."*

***Christ the King School***

***St. Bernard Academy***

When Andrew Gerhold and Miles Hallgren decided to enroll at JPII, they charted a different path than the rest of their classmates at Christ the King School and St. Bernard Academy, respectively. Andrew and Miles were the only students in their classes to choose JPII.



Miles Hallgren

"When I visited I really liked the atmosphere and the sense of community at the school," Miles said. "I think the school community is great." Before he started classes as a freshman last August, Andrew knew four other people who were coming to JPII. But it didn't take long to start making new friends among his classmates. "It's not really hard meeting people," Andrew said. "I've made a lot of friends actually."



Andrew Gerhold

Miles had heard JPII was a challenging school academically and there were a lot of extracurricular activities. "I thought that was pretty cool." Miles is participating in Model UN, and is enjoying his classes. "Advanced English, that's possibly my favorite class ever," said Miles, who lives in Inglewood. "We read a lot of really good books, (there is) a lot of really fun writing."

Like Miles, Andrew is taking a slew of advanced classes. He appreciates the daily tutorials that are available for students so they don't fall behind in their studies. Andrew lives in Bellevue, but the distance hasn't been an obstacle, he said. He rides one of the buses JPII offers and the trip takes 25-30 minutes, said Andrew. "I like it. It's convenient."

Miles said he feels "really welcome and at home" at JPII. For the prospective students who are considering coming to JPII next year, Andrew has a simple message: "Come here. (You'll) enjoy it."

JPII people ... Miles Hallgren and Andrew Gerhold!

## STUDENTS WIN FIRST PLACE IN YOUTH ART CONTEST

JPII students were among the many Catholic students in grades 7-12 that competed in this year's annual Multi-Media Youth Arts Contest presented by the Catholic Campaign for Human Development and sponsored by Catholic Charities of Tennessee.

The contest is part of Catholic Charities advocacy efforts on behalf of anti-poverty initiatives. A variety of visual and literary art forms were accepted including: painting, drawing, mixed media, short story, poem, song and photography.

This year's winners are JPII senior Holly Blankenship and sophomore Nicholas Baker for their photograph, "Two Feet of Love" (photo at right). Also receiving Honorable Mention are juniors Maddie Kolbe and Caroline Graves for their photograph, "Hope is a Waking Dream."



## JPII STUDENTS SHINE IN FBLA REGION COMPETITION

JPII students placed in the top five in eight categories at the Future Business Leaders of America Region 5 Leadership Conference, which qualifies them for the state competition in Chattanooga in April.

The team of Caleb Pracht, Luke Price and Lucas Pulliza finished first in the Entrepreneurship category. A second team from JPII, Ben Silverman, Greg Silverman and Colin Bryant, finished fourth in the same category.

Other teams that placed in the top five of their categories were:

■ Raina Deverai, Nick Massa and Connor McCarthy, second, and Grace Adcox, Ellen Gerstner and Meghan Sooker, fifth in Management Decision Making.

■ Abigail Cox, Alyssa Fogolin and Sara Williston, second, and Brett Burke, Mitchell Nelson and Carson Riley, third in Global Business.

■ Natalie Cannella, Megan Gerstner and Taylor Wallace, fifth in Business Ethics.

■ Brian Griffin and Heath Herrington, second in Marketing.

Among the winners in the individual categories were: Greg Mills, second in Economics; Tyler Dorr, second in Public Speaking I; Robert Davis, fourth in Impromptu Speaking; and Zach Abdo, fifth in Public Speaking I.

The Region 5 competition was held at Aquinas College on March 1.



## JPII WELCOMES BISHOP FLORES AS DISTINGUISHED LECTURER

The Catholic Church in the United States must be involved in more than political and legal activism in pursuing solutions to the problems surrounding immigration, said Bishop Daniel Flores of Brownsville, Texas.

“Let the government worry about documents. We must worry about souls,” said Bishop Flores, who was invited to be the guest speaker on “Immigration and the Mission of the Church” as part of the Distinguished Lecturer Series at Pope John Paul II High School.

“We are facing a deadly enemy of human life” that takes the form of the drug trade, human trafficking, lucrative trafficking in weapons from the United States into Mexico and other parts of Central America, and a deadening of the conscience that leads to murder and other forms of violence, said Bishop Flores, whose diocese includes the Rio Grande Valley in South Texas on the Mexican border.

“Our primary task ... must be to open wide the streams of grace that nourish us all, so that we can be equipped with the strength and courage that only the Lord can give,” said Bishop Flores, who spoke Monday, March 4, to an audience of students and people from the community.

The Catholic Church in the United States needs to make a stronger effort to welcome new arrivals, Bishop Flores said. “We can’t wait for immigrants to come to us. ... We must get to know the people the Lord puts in our midst.”

The traditional narrative about undocumented immigrants in the United States is that the mothers and wives stay behind in Mexico and Central America while their husbands and sons and young daughters travel to the United States so they can find work and send money back home to support their families, Bishop Flores said.

“The reality is much more complex,” he said.

Many immigrants come to the United States because they fear the rampant violence in their homelands stemming from the drug cartels and organized crime, Bishop Flores said.

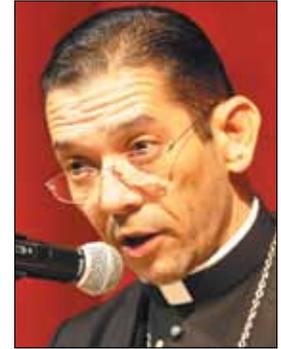
International cooperation is needed to address the conditions in other countries that force people to migrate, Bishop Flores said. “A hemispheric approach is needed.”

Any reform should allow families to stay together, account for the undocumented already living here so they can stop living in fear, and include a process that leads to the regularization or legalization of their situation, Bishop Flores said.

While Congress and the president are responsible for writing the federal laws, the civil agencies, local law enforcement and the church should focus on helping immigrants deal with their daily needs, Bishop Flores said.

“We can never act,” Bishop Flores said, “as if our faith has nothing to do with the general welfare of others.”

The Distinguished Lecturer Series brings nationally known figures to the JPII campus each year to speak on important issues. Past lecturers have been George Weigel, a theologian and biographer of Blessed John Paul II, who spoke on the global impact of the school’s namesake, and Tennessee Gov. Bill Haslam, who spoke on the intersection of faith and politics.



Bishop Daniel Flores

### GRACE GIBBENS '07 EARNS WINGS

Lt. Grace Gibbens, a 2007 graduate of JPII, recently earned her wings as a pilot in the U.S. Air Force.

After graduation, Grace attended the University of Tennessee in Knoxville, where she earned a bachelor of arts in psychology. Upon graduation, Grace completed Phase 1 and 2 of Undergraduate Pilot Training at Columbus Air Force Base in Mississippi.

Her next assignment will be flying the UH-1N Huey with the 1st Helicopter Squadron, Andrews Air Force Base in Washington, D.C.

Congratulations Grace!



### JPII STUDENTS RECOGNIZED IN WRITING COMPETITION

Eleven JPII students received recognition for their writing in the Scholastic Writing Contest for the Southeast region. These 11 students garnered 18 total awards, a strong testament to their abilities and to the training they’ve received from their teachers. Two seniors, Connor McCarthy and Jessica Herrera, received “Gold Key” recognition. The others received “Silver Key” or “Honorable Mention” awards.

The winners and the awards include: Tyler Dorr, silver key in poetry and flash fiction and honorable mention in humor and flash fiction; Jack Duffin, silver key in poetry and honorable mention in poetry; Marissa Edwards, silver key in poetry and honorable mention in science fiction/fantasy; Zach Frank, honorable mention in humor; Jessica Herrera, gold key in poetry; Audrey Manners, silver key in journalism; Alex Matheny, silver key in poetry; Connor McCarthy, gold key in journalism; Hannah Mitchell, two honorable mentions in poetry; Melissa Quirin, honorable mention in short story; and Katie Swaringen, two silver keys in personal essay/memoir.

## MR. HALL FOUND JOB AT JP II 'TAILORED FOR ME'

When Jon Hall saw the position of physics teacher at Pope John Paul II High School advertised last year, he thought, "The description couldn't have been more specifically tailored for me if (Science Department Chair Jennifer Dye) had known me."

Mr. Hall, who teaches freshman physics classes and AP physics for seniors, has worked as a scientist in a lab as well as experience teaching in public and private schools, including two Atlanta-area Catholic high schools. He also had experience with the physics first curriculum used at JP II, in which physics is taught to freshmen rather than juniors and seniors like most schools, and modeling teaching strategies.



Jon Hall

The traditional approach to teaching physics, with teachers providing the information to the students, helps students develop math skills," Mr. Hall said, "but the don't really learn about science."

The modeling approach requires students to collect data, and then through questions and discussions, the teacher tries to guide the students to the answers. "It's guided discovery," Mr. Hall explained. "They're creating knowledge themselves instead of someone pouring knowledge into their head." Modeling is a more accurate reflection of how scientists work, he added.

"JP II is on the cutting edge," Mr. Hall said. "More and more schools are moving in this direction."

Mr. Hall was working on a doctorate at the University of Chicago in the early 1990s, when he decided he didn't want to be a lab scientist. Instead, he joined the Teach for America program, which placed recent college grads in under-resourced schools. After six weeks of study in teaching

strategies and classroom management, Mr. Hall began teaching at a small high school in rural Georgia.

"It was quite a bit of culture shock," moving from a big Northern city to a small town in the rural South, Mr. Hall said. "It was quite interesting."

After two years, he decided to move to Atlanta, where he spent the next nearly 20 years alternating between work as a lab scientist at Emory University and Georgia Tech University and teaching in three different high schools, including St. Pius X and Blessed Trinity Catholic high schools.

When he was looking for a new job last year, Mr. Hall said, "I knew I wanted to teach at a Catholic school. It's a different environment." With the environment of a Catholic school, Mr. Hall said, "The messages you send to kids are the right messages. ... It's important that kids be raised with a sense of rightness and wrongness."

As a teacher, Mr. Hall appreciates the autonomy faculty members have at a school like JP II. The school has a "very good faculty, very professional. They're pretty impressive, very knowledgeable," he said.

He also enjoys the collaboration on the faculty, Mr. Hall said. "We talk a lot," he said. Because the freshman physics and algebra I classes are so closely interrelated, the faculty are planning this summer to have the algebra teachers observe a physics modeling class to see how the two classes can support each other, he said.

"I love the kids here," he added. "They're a joy to teach. They're the highlight of the job. They're very impressive," gregarious, fun to work with and respectful.

Besides teaching, Mr. Hall also coaches cross country in the fall and the distance running events for the track team in the spring. He was a high school runner himself and has coached track and cross country at all the schools where he has taught. "Cross Country is the only sport," he said, "where everybody who wants to participate can participate."

## STUDENTS PARTICIPATE IN SCIENCE AND HUMANITIES SYMPOSIUM

JP II seniors Nathan Edwards and Regan Givens recently participated in the 47th Tennessee Junior Science and Humanities Symposium in Knoxville.

Students from across Tennessee are invited to conduct research and then submit their papers for review. The papers are reviewed and students are then invited to present their findings to professors, students and their teachers. This year 13 students were invited to present from across the state.

Nathan Edwards presented his research on "Quantifying the Effects of the Fall season: A study in varying chlorophyll concentrations in

Liquidambar styraciflua leaves throughout autumn". Nathan designed and independently conducted his research in the biology lab at JP II as part of his AP biology course.

Regan Givens' research on "The effects of varying glucose concentrations on cellular glycolytic rates" was conducted as part of the Vanderbilt University summer research program for high school students. His research received Honorable Mention and earned him an invitation to attend the 51st annual Junior Science and Humanities Symposium in Dayton, Ohio, in May. Additionally, Regan's paper will be published as part of the Young Scholars journal through Vanderbilt University.

## GILSTRAP WINS SHAKESPEARE COMPETITION

Junior Teresa Gilstrap has qualified to compete in the 30th Annual National Finals of the English-Speaking Union's National Shakespeare Competition April 21-23 in New York City at the Lincoln Center Theater. Gilstrap will compete against 60 students from across the nation for an opportunity to attend a summer drama program in Shakespeare's homeland. While in New York, Gilstrap will be treated to sightseeing activities, including a Broadway play, as well as exclusive acting workshops.



Teresa Gilstrap

Gilstrap moved onto the national competition after finishing in

## SCHOOL TO HOST PALM SUNDAY CONCERT

Pope John Paul II High School will host a sacred choral cantata, "Lenten Sketches," by Joseph M. Martin to be presented by the choral department's three advanced choirs on Palm Sunday, March 24, at 4 p.m. in the Ann and Monroe Carell Theater at JPPII.

The concert features a series of tableaux, which emotionally and powerfully illustrate the pivotal final days of Christ's earthly

first place of the Branch Competition on March 2, performing William Shakespeare's "Sonnet 29" and a monologue of Lady Ann from "Richard III." At the Branch Competition, Gilstrap competed against hundreds of students from 16 area schools. She received a \$100 cash prize, a book on the works of Shakespeare, and an all-expense paid trip to New York for the national competition.

The English-Speaking Union National Shakespeare Competition offers a performance-based program for the study of English Language Arts curriculum for high school teachers across the country. Ms. Alana Wortman sponsors JPPII's Shakespeare program. The competition helps students develop their communication skills and an appreciation of the power of language and literature. Since its inception in 1983, the competition has engaged more than 250,000 students.

ministry, the triumphal entry, the last supper, the garden of Gethsemane and the crucifixion. Deacon Brian Edwards will serve as the narrator between each movement and junior Jacqui Ramos will be the violin soloist for the Pieta movement.

A free will offering will be taken to benefit Sumner Special Housing, which provides housing for adults with intellectual disabilities.

## SCIENCE AT JPPII A MODEL FOR OTHERS

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examine all the forms of energy and their properties. That lays a foundation for the study of chemistry and biology, Dye said.

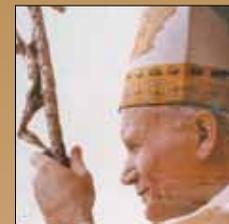
But the adoption of the "Physics First" sequence of classes "wasn't quite what we needed it to be," Dye said. So, three years ago, JPPII began using a "modeling" approach in teaching science. Modeling addresses all the needs in science education for the 21st Century by forcing students to grapple with ideas, decide what is important, and engage the subject matter, Dye said.

In the traditional teaching strategy for science, teachers dispense information that the students then regurgitate on tests. But with modeling, teachers guide students through the discovery process by asking questions, Dye said. The strategy requires students to build conceptual models, Dye explained. Students conduct investigations to gather data, and then ask questions about what that data means. Students are asked to present the data in several forms – graphs, mathematical equations and drawings. "Then we're going to test it to see if the model works," Dye said. Through that process they develop a deeper understanding of the subject matter, she said. "That truly is what scientists do," Dye said.

Currently, JPPII is one of about 15 schools and school systems in the state that use one or both of the strategies, Cheatham said. "Not everyone is interested. I believe part of that is we have not had enough good data to show it works." That's where JPPII is playing an important role. The school has been able to track students' scores on standardized tests under the traditional model of science instruction, the inverted curriculum alone, and finally with the inverted curriculum and modeling. The scores have shown steady improvement under the changes. The percentage of students who moved from not college ready as freshmen to college ready by the time they were juniors went from 20.4 percent under the traditional approach to 30.2 percent with the inverted curriculum and finally to 39 percent with both the inverted curriculum and modeling. "It's really amazing data," Cheatham said.

If approved, the STEM Center would use the grant to work with 20 school systems "from Memphis to Johnson City" to implement the two strategies, Cheatham said.

The approach to science instruction at JPPII is already drawing interest from other schools. "It's a revolving door here," Dye said, with teachers from other schools coming to JPPII about once a month to observe the science classes.



## Knight Athletic Club golf tourney set April 29

The Knight Athletic Club will host its annual golf tournament on Monday, April 29, at Bluegrass Yacht and Country Club in Hendersonville to raise funds to support the athletes of JPPII. The day will feature food, fellowship, outstanding golf competition, prizes and giveaways.

Organizers are looking to fill at least 120 golfer spots, secure sponsorships levels from \$150-\$5,000, attain door prizes and donations and provide high-visibility opportunities for businesses to be showcased at this event.

This year, sponsors can designate a percentage of their sponsorship to the sport of their choice.

Registration will begin at 10 a.m. with a shotgun start at 11:30 a.m. The day will include lunch, a putting competition, golf, door prizes, dinner and prizes to the top team in each of the three flights.

Volunteers are welcome.

For more information, contact Julie Whittington at (615) 519-0720 or Julie.whittington@hbpizza.com.