



Saint Timothy Catholic School
Chantilly, VA



tigertracks



Lab LearnerTM a big splash of knowledge!



- > Preschool goes high-tech a SMART idea in the classroom
- > Differentiated Instruction has a big impact
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- > School enthroned to the Sacred Heart
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Living the Year of Faith at St. Timothy

A Summons to Renewal



The Holy Father (Pope Benedict XVI) had proclaimed a Year of Faith from Oct. 11, 2012 – November 24, 2013 (14 months).

This past year was dedicated to the renewed understanding and living of our Catholic faith. "Year of Faith... is a summons to an authentic and renewed conversion to the Lord, the one Savior of the world." (Pope Benedict XVI, Porta Fidei, Paragraph 6).

As a parish and as individuals we have taken concrete steps during this past year to deepen and renew our faith in Christ and His Holy Church. Many activities have taken place over the last 14 months at the Parish, while others were designed to be lived in our daily lives with our families and in our homes.

These activities and events have included presentations by guest speakers and parish priests, devotions to our Blessed Mother, and our incredibly successful community building International Festival. Please refer to our website for a full list and descriptions of our primary programs and events.

We hope that each of you have had the opportunity to share, and grow and deepen your Faith over these past 14 months. "Saint Paul asks his disciple Timothy to "aim at faith with the same constancy as when he was a boy". We hear this invitation directed to each of us, that none of us grow lazy in the faith... What the world is in particular need of today is the credible witness of people enlightened in mind and heart by the word of the Lord, and capable of opening the hearts and minds of many to the desire for God and true life, life without end" (Pope Benedict XVI, Porta Fidei, paragraph 15). Real conversion takes place on a personal level. We hope you can be a part of this New Evangelization. Commit to sharing your faith with others. DO NOT BE AFRAID! Live as Saint Francis did, share your faith by living it and, if necessary, use words.

As the Year of Faith draws to a close I hope your faith has been strengthened by the works of the Holy Spirit – go forth and continue to grow in Faith, Hope and Love.

Gerald Weymes

Reverend Gerald Weymes



Introducing Tiger Tracks

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It is my great pleasure to introduce you to our new Tiger Tracks publication. This publication will provide our school community with articles that address important school issues, educational trends and outline our new programs and school improvement initiatives. The theme of our inaugural edition of Tiger Tracks is fittingly focused on Saint Timothy Catholic School's rich Catholic traditions and our heightened focus on STEM based initiatives. In addition to our concentration on Mathematics and Language Arts, we

are also taking the necessary steps to respond to the changing landscape in American education.

Our school's strategic and spiritual focus this year is dedicated to providing solutions and answers to the question / challenge stated below. How can we better equip our students with the requisite skills and knowledge to thrive at the next level and prepare them to be the future Catholic Leaders capable of evangelizing and leading others to Christ?

According to statistics put out by the US Federal Government, only 16% of American high school seniors are proficient in mathematics and interested in a STEM careers. According to www.edgov/stem.org, STEM related occupations will grow on average by 14%. Math related occupations by 16%, Computer related positions from 22% to 32%, Scientist by 36% and biomedical engineers by 62%. The government, private sector and university systems are all working to expand and enhance these STEM related student education preparation programs. A further indicator of the rising importance of STEM education is the influx of abundant STEM grant money that is also available for individual schools and school systems.

Subsequently, in response to these emerging educational trends and career opportunities, we are committed to providing our students with educational and extracurricular offerings that encourage our students to think critically, engage in problem solving, collaborate, research and communicate findings. Academically we are working to strike a balance between the use of cutting edge instructional technologies, and classical education models that we know inspire and enhance student learning. You will read about many of the STEM based programs and instructional technologies currently in use at Saint Timothy highlighted in this publication.

Our parochial vicar, Father Stefan, summarized our primary goal in this area when he said, "We are challenged to inspire the kids with the wonder of what can be and will be during the 21st Century." With our Lord Jesus Christ as our guide and the Catholic Church as our lens, we can provide our students with the tools they will need to succeed and flourish at the next level, in accordance with His perfect will. In the words of Blessed Pope John Paul the Great, "The future starts today not tomorrow."

We hope you enjoy this inaugural edition of Tiger Tracks and the subsequent biannual issues that will follow. In this edition you will find various articles that describe some of our new STEM initiatives in depth. [For a complete list, see www.sainttimothyschool.org] Also in this edition we take a look at a few of the many rich Catholic traditions that help form our students in the faith and prepare them to be future Catholic leaders.



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LabLearner™

a big splash



Saint Timothy made a strategic investment over the summer to bring the 100% hands-on interactive LabLearner™ science program to our school. The program includes all grades and is able to reach all of our students and bring new excitement and interest to science and math. The students

first have a lesson or “pre lab” that introduces the new topic, materials, and equipment. Then they are exposed to the topic in the lab and conduct real experiments and gather data. The final step is a “post-lab” where the students study their findings and further their understanding of the topics. The exposure and experience in the lab is rapidly building the students’ confidence to experiment and use their knowledge, as well as their overall science and math aptitude. The core belief behind the LabLearner™ curriculum is that when they enter the lab they are no longer students, but scientists conducting real experiments.

For the Middle School, having a dedicated lab has meant more lab time. Labs flow from introducing content, emphasizing content, and

furthering content. Students have the freedom to pace themselves in the lab so they do not feel rushed and are able to learn at the rate that suits them best. If it takes two or three days to complete a complicated lab, the Middle School has the luxury being able to use their lab as they need it. It also means that labs can be scheduled when the students are ready, rather than adhering to a strict weekly schedule. The new LabLearner™ equipment lets the

“Interesting”





of knowledge!

"It is shocking and surprising at times to see what reactions occur during our lab."
- STS student

the Middle School students really work as scientists.

Labs that were

done in the past with

plastic cups and plastic spoons are now carried out in glass beakers with glass stirring rods. The students are learning to use the equipment they will continue to use in high school, college, and

beyond. It is easy to feel like a

scientist when you are wearing

a lab coats, safety goggles,

and using authentic materials

one would expect in any

professional laboratory.

LabLearner™ is proving to be an active science program that blends science

with math, writing, and experimental

design. This year it will also expose

all students to basic robotics. As a

whole, the LabLearner™ program, in

addition to the growing robotics

program, is enhancing the hands-on

science program at St. Timothy. As

St. Timothy continues to develop

its STEM education,

LabLearner™ will continue to

be an integral part of that

development.

Through the use of LabLearner™, STS hopes to:

- *Increase student performance on standardized tests (in all content areas and grades).*
- *Increase engagement of students and teachers in Science.*
- *Inspire and engage parents and community members to actively participate in and support our school's STEM related activities and programs.*
- *Increase our course offerings to families via distance learning and digital classrooms.*
- *Enhance existing partnerships in the public and private sectors; including universities, high schools, federal programs and corporate (local and regional).*



Science
Technology
Engineering
Math

"Cool and messy."

"I like the new program. We are learning a lot of new things."

"More involved."

"Fun."

"I now feel like a scientist."

STUDENT TESTIMONIALS

ROBOTICS FUN



Saint Timothy Catholic School is thrilled to announce the formation of a competitive *FIRST® LEGO®* League Team appropriately named the TIGERBOTS. The

FIRST® LEGO® League "is a robotics program for nine to 16 year olds, which is designed to get children excited about science and technology." The TIGERBOTS will travel to different competitions and face off against other schools and teams from all over Virginia, Washington, D.C., and Maryland. Currently STS offers two elective classes, Robotics 101 and Robotics 102, which feed into our LEGO® League Team.

In Robotics 101, students build robot rovers using the LEGO® Mindstorms® NXT sensors. They learn about Basic programming using the NXT-G icon programming language and program their robots to form geometric shapes, play music, follow a black line using a line sensor, and avoid obstacles. Robotics 101 is a fun way for students to use math and measuring skills, and learn about mechanical and software design, and problem solving all while working as a team.

Robotics 102 expands on the foundation that was

learned in Robotics 101 and exposes the students to advanced programming skills using NXT-G language. Students create and program robots with legs and are introduced to competitive robotics using the *FIRST® LEGO®* League game board.

These popular courses pique students' interests in careers in engineering, computer science, and robotics. The goal of the robotics program is to develop critical thinking and engineering skills so that the students will be comfortable taking robotics, computer programming, or other engineering courses in high school.

For the younger students who love building with LEGOS®, STS offers a Lego Club for children in second through fifth grade. Our aspiring engineers create and build pull back cars, pulley cars, buildings, bridges, tall towers, and Ferris wheels. Since 2011, we have offered two sessions of this club with over 30 students participating and a growing waiting list. Lego Club is run by a company called "Play Well Tek," and is moderated by Mrs. Hilary Anderson who has been a teacher at STS for 15 years!



Preschool goes high-tech **A SMART IDEA** in the classroom



Preschool goes high-tech to support learning objectives

As this next generation of students grows, technology is certainly going to be instrumental in facilitating learning. Today's students are astoundingly comfortable with the use of high tech gadgets. At Saint Timothy Catholic School we seek every opportunity to use technology in order to support learning. SMART Boards and ActivBoards are currently in use in all of our preschool rooms. Recently, STS was selected by AVI-SPL to be a test school for its new SMART Table. This brand new technology is a great resource for teachers to use as an additional tool in the classroom. 1,500 learning

activities are installed on this interactive table that engages up to 8 preschool-3rd grade students at a time. This tech tool brings learning through play and teamwork skills to a whole new level! Students participate in problem-solving and small group collaboration activities while having fun. Saint Timothy Preschool is proud to prepare today's young students for the world of tomorrow.



Gifted and Talented Program launched





St. Timothy Catholic School's Advanced Academic Program is entering its second year and has expanded from solely offering Advanced Mathematics to also including Advanced Language Arts. The Advanced Academics Program is modeled on similar programs in many schools around the country and is designed to challenge students with a rigorous curriculum. Students in grades 3-5, who meet certain criteria, are eligible to participate in the Advanced Math Program or Advanced Language Arts Program.

The Advanced Math Program allows students to move in and out of the advanced math classes when they need additional academic challenges. At the start of a math unit, students are given an assessment in any format that allows them to show mastery of the grade level material. Students who show mastery of grade level content are eligible to participate in the Advanced Math Classes for that unit. At the conclusion of the unit, students return to their regular classroom, take the next unit assessment and the cycle begins again.

Two advanced math tools — the “flipped” classroom and “choice board” — have proven particularly useful in helping students develop critical thinking and problem solving skills and applying those skills in real-world applications. A flipped classroom is a video presentation of the topic to be covered in class the next day. Students watch the video as often as necessary for initial understanding of the material being explained. Students then come to class the next day and spend

classroom time applying knowledge and problem solving with the help of the teacher and their classmates. Instead of having the teacher introduce the material in class and then sending the students home to work on it on their own, the order has been “flipped.” The “choice board” allows students to choose activities that show mastery of class content. It

“The Advanced Math Program allows students to move in and out of the advanced math classes when they need additional academic challenges.”

complements the STS focus on individualized approach to education. Other grade-specific exercises also aid learning. For example, fifth grade students exercised their deductive reasoning skills by developing a problem-solving website. Fourth grade students were introduced to “mind maps” that encouraged synthesizing information as an aid to generate new ideas. Finally, third grade students created games to show their mastery of a unit's content.

The recently debuted Advanced Language Arts Program focuses on the art of writing. The program is designed to challenge students in 3rd-5th grade with a variety of writing and publishing opportunities. During each school-year quarter, the Language Arts program will focus on a particular style of writing. The first quarter highlights descriptive writing.

Poetry and narrative writing are the focal point for the second quarter, followed by expository writing in the third. The year ends with persuasive writing. During the persuasive writing unit, students will also learn how to prepare an argument and participate in debate. Each quarter will end with a publishing opportunity or writing contest.

Owing to the success of an inaugural in-house math competition in 2013, we are adding Middle School and Lower School math competition teams this year. Parent volunteers, under the direction of the Advanced Academic Department, will coach, train, and lead these teams. Middle School students will prepare for MathCounts® while Lower School students will participate in the Continental Math League. MathCounts® is a national program for 6th-8th grade students that supports math achievement through a series of contests. The Continental Math League is a national competition that supports the math achievement of younger students.

At St. Timothy School, our mission is to meet the educational needs of all students, using an individualized instructional approach. The Advanced Academic Program is just one opportunity for students to develop their full potential.



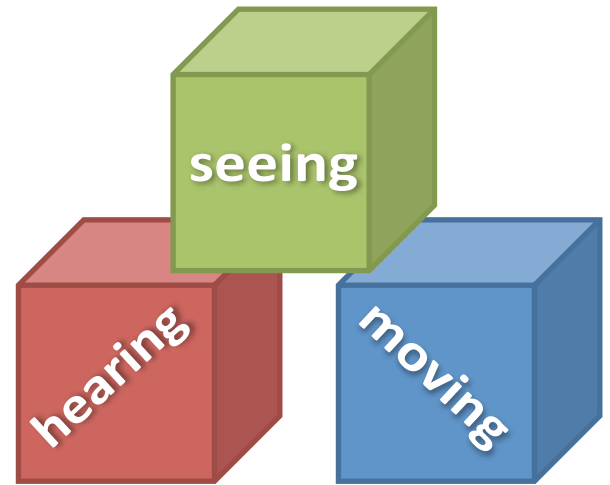
Anna DeSena explains “How to Slay a Dragon” to Justin Vu using math during last spring's Math Fair.

Differentiated Instruction has a big impact

“Teachers in Differentiated Classrooms are students of their students.”

What does a differentiated classroom look like? Step into a classroom in the St. Timothy Catholic School Middle School building and have a look at teenagers demonstrating their knowledge of the vocabulary words in the most recent unit. At one desk, a student works quietly, writing an essay with the newly acquired words. In another area, a group of students are working on a skit, incorporating the vocabulary words correctly, and then performing it for the class. Still others are working on comic strips, where they sketch pictures with dialogue boxes, each one containing one of the new words. These students are all exhibiting the successful comprehension, discrimination and dissemination of vocabulary words, yet all in different ways that the teacher will be able to assess.

Differentiated Instruction is a learning environment that addresses the many learning styles, interests and abilities found within a classroom. In the report “Differentiated Instruction and Implications for UDL Implementation” it describes Differentiated Instruction as requiring the “teachers to be flexible in their approach to teaching and adjust the curriculum and presentation of information to learners rather than expecting students to modify themselves for the curriculum.” St. Timothy Catholic School teachers are utilizing this type of instruction to ensure that each and every student is able to achieve success based on their learning strengths. Earlier this year, the students took a “Learning Style Inventory.” The results provided the teachers with a snapshot view of each student’s learning preferences. Teachers, with printed reports in hand, now know which



students like auditory directions and which prefer visual aids. They learned which students prefer movement to sitting still, and which learn best with no background noise. In the book, *A Call for Differentiated Classrooms*, Carol Ann Tomlinson writes, “Teachers in Differentiated Classrooms are students of their students.”

Throughout St. Timothy School, children are learning and showing what they know in a variety of ways. In some religion classes, students are singing sacrament songs to help them remember the seven signs of God’s love. In third grade, students are creating book reports not just with words on printed paper, but with their own voices recorded and available digitally. The computer lab is abuzz with 8th graders not just doing research on decades in American history, but creating videos as an assessment of what they know about the past and how it shaped our world today.

Saint Paul tells us that “Each one has his own gift from God, one in this manner, and another in that.” St. Timothy School teachers are recognizing and celebrating the many gifts their students are bringing to the classroom every day. Students, in turn, are displaying their gifts, and the result is increased overall achievement, and a dynamic academic community.

School enthroned to the **Sacred Heart**

Our community is rooted in the Catholic faith; Christ is the center of who we are and what we do. The central mission of St. Timothy Catholic School is to educate in Truth and Virtue. Without Christ, it is impossible to accomplish this paramount goal. By inviting our school family to a enthronement ceremony the first week of school, we link the tabernacle of our parish church to our school community, inviting our Lord to be our constant and most intimate companion. The Enthronement is a way of life: it means that Christ is King of our hearts, and we desire Him to be always present with us in everything we do.

"Faith in Action" 1st Friday Food Collection for St. Vincent DePaul Food Pantry

It had been a long standing tradition at Saint Timothy Catholic School: 1st Friday donuts! The students loved the sprinkled confections as did teachers despite having to deal with the aftermath of the sugar crash. One Friday, Frankie Morrero (STS '07), an 8th grade NJHS student, had an idea which at the time revolutionized the idea of "faith in action." He thought out loud to Mrs. Cowan, the NJHS advisor, "It seems a bit indulgent to enjoy donuts when there are so many families in need in our local community. I wonder if we could do a 1st Friday food collection instead to support our Saint Vincent DePaul Society Food Pantry?" And so the idea was born, and today, years later, the tradition continues.

Each month the students bring in food items from a pre-assigned list provided by the food pantry. Over the past year our school community has been able to support over 100 local families. Many classrooms have added competitions to the service idea, challenging the other classes to match or beat the number of donated items – often exceeding the goal! Our students learn at an early age that together we can make a difference, and we all play an important part.

Let us pray for you!

Do you have a special prayer intention? Let us pray for you! Each day of the month, at least one STS family prays the rosary for the intentions of our STS family and parish. We also have a 1st Friday Rosary where we pray for the intentions of our school and parish community. If you have a prayer request, please send it to:

maryscorner@sttimothyparish.org



Alumni in the news



From left, Principal Joseph McLaughlin, John Feldmann, and Wayne Kelly (John's Freddie Mac supervisor).

Thank you John Feldmann (STS '04) and Freddie Mac for your generous donation of \$2,500 to support St. Timothy Catholic School STEM initiatives!



Congratulations to STS Alum John Feldmann for being recognized as one of Freddie Mac's CEO Award Winners earlier this fall. This is the highest honor bestowed on a Freddie Mac employee.

Shortly after his graduation at James Madison University and a few weeks after joining the Freddie Mac Cash Middle Office (CXO), John Feldmann quickly distinguished himself in his new position. He identified a gap in one of the key processes of his division and created a universal macro called "the Feldmann Loan and Security Creator" or FLASC. The macro helped streamline the process and saved the company an average of 300 staff hours per month! John also made additional recommendations that enhanced and streamlined an approval process resulting in an additional 400+ staff hours saved each month! John is known for building strong alliances within his department, collaborating closely with colleagues and developing creative solutions that benefit his entire company. John was recognized for his common sense, affability and creative approach to problem solving. He attributes much of his strong academic foundation and critical thinking skills to his educational experiences at Saint Timothy Catholic School and Paul VI High School.

Freddie Mac has also made a \$2,500 donation to Paul VI High School's Math Department in John's name. Thank you, John, for your generosity and for remembering where it all began. We are all so proud of your accomplishments and appreciate the generous support that you've bestowed on your alma maters!



Rev. Thomas Yehl (YA), STS '92
A graduate of Paul VI Catholic High School '96 and the College of William & Mary in 2000, Father Yehl was ordained to the priesthood in 2012. He is currently a Parochial Vicar at Holy Trinity Catholic Church in Gainesville, VA.



Rev. Luke Dundon, STS '95
A graduate of Bishop Denis J. O'Connell High School '99 and United States Naval Academy '03, Father Dundon was ordained to the priesthood in 2011. He is currently a Parochial Vicar at Saint Philip the Apostle Catholic Church in Falls Church, VA.

