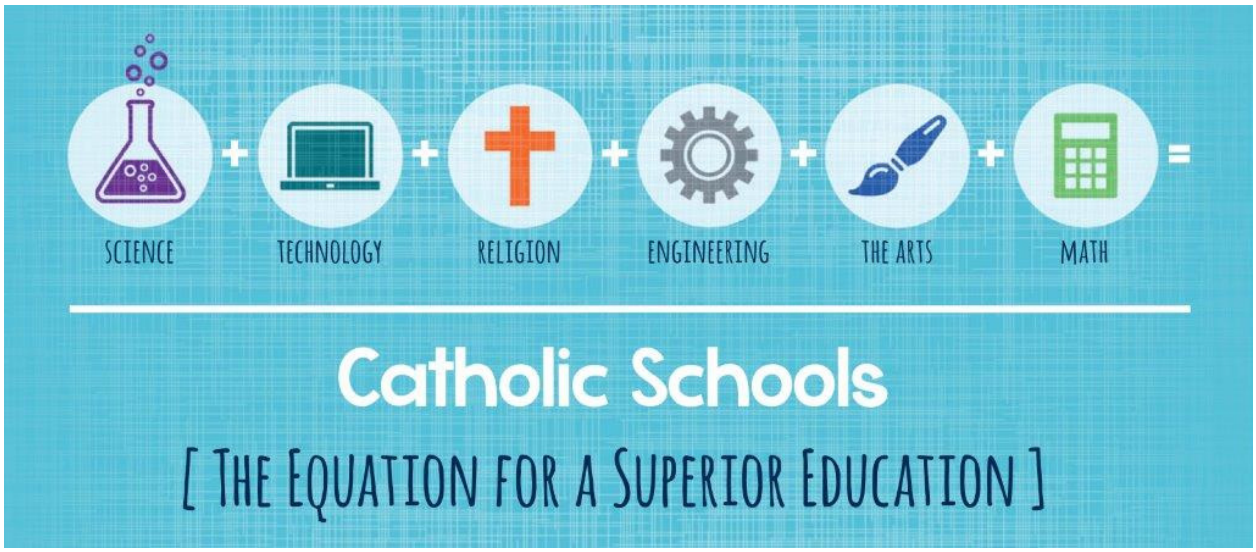

STREAM FAQ's

What is the STREAM Education Initiative?

It is the diocesan investment to support the future of Catholic education and will be implemented throughout the elementary schools over the next few years. The diocese will design, help fund and implement STREAM beginning with 10 pilot schools in the fall of 2014.

Is STREAM anything like STEM?

STREAM is an expansion of STEM. It is an acronym for Science, Technology, Religion, Engineering, the Arts and Math. As Catholic schools, our mission is to educate the whole child; therefore, we have taken the principals of STEM infused religion across all subjects and added the arts to provide students the creative thinking skills necessary to communicate and advance STEM in the real world.

STREAM is also a visual description of flowing water. In the classroom STREAM is the flow of ideas over and across several subject areas. Equally important is the fact that the success of the STREAM program at any school will require a constant flow of communication, collaboration and planning among parish, school, administration, staff, parents and students.

STREAM is not a new curriculum, but a framework for creative instruction. STREAM uses technology to advance the experience. Not only will students will use traditional text, but will also use white boards, iPads and laptops to access the internet to explore, process and learn.

Why STREAM?

While students from Catholic schools consistently outperform their peers in public schools, we are raising the bar to keep our competitive edge. Across the US, business leaders are having difficulty finding enough talent to stay competitive. Our children need to be able to inquire, think, investigate and innovate to succeed. STREAM will help prepare our students for successful careers in a 21st century workforce.

How were the STREAM schools chosen?

Schools interested in STREAM were required to apply to become a STREAM school. Applicants submitted a detailed application providing a list of academic and financial requirements and commitments from parish and school administration, staff and HSA representatives. Applications were altered to remove all identifying information so the review team was "blind" when making their decisions. A set of criteria was established and each application was given a grade based on the criteria. Schools with the highest scores became STREAM schools.

When will schools start introducing STREAM?

Ten pilot schools were accepted into the initial cohort of STREAM Schools for the fall of 2014-15. Each pilot school will have a paid, designated STREAM coordinator who will start training in August. STREAM professional development and mentoring will continue for coordinators and teachers throughout the '14-'15 school year directed by the diocesan STREAM coordinator, Jean Comer.

How does STREAM work?

STREAM is not a new curriculum, nor is it a specific subject but a creative method of teaching a concept across a variety of subjects.

For example, the sixth grade might study ancient Greece; in advance of the segment, teachers will meet and collaborate. Then, students might learn about the history and architecture of Greece in Social Studies, discuss and make models of Greek columns in Art class, or discuss and plan a mini-Olympics in gym class. For students this means the concepts are learned and reinforced across the curriculum rather than in just one subject.

What option do we have if our school was not selected as a pilot school?

Schools not selected for the pilot phase but still interested in integrating STREAM into their schools can offer their students STREAM Academy.

What is a STREAM Academy?

All schools have the opportunity to become a STREAM Academy, where STREAM supplemental activities can either be offered as a club, as part of an afterschool, evening or weekend program, or "pushed-in" to the school day, by shortening the average length of each period during the school day to allow for an additional period specifically for STREAM activities.

STREAM Academy schools will have the opportunity to choose from among 6 focus topics:

- *Robotics* (Grades 7-8) – Devised to be easy for students to design and construct, robotic kits make creating, building and programming robots fun! Participants gain valuable teamwork and problem solving skills. A Diocesan Robotics Demo and Tournament culminates this course on December 7th at St. Joseph Collegiate Institute.
- *PEAP –Primary Engineering Adventures Program* (Grades K-3) - This Academy course adapts the engineering design process to meet the needs of our favorite fairy tale characters. These familiar and timeless stories encourage students to begin problem solving, generate design proposals, collaborate, and make connections to the enchantment of engineering!

- *Invention Convention* (Grades 3-5) - This program gives students the opportunity to identify a problem or need; then solve the problem by using methods an inventor would follow! Students explore creative problem solving through the inventive process. They design an invention as well as write and produce commercials to market their product.
- *STREAM Science Scrimmage* (Grades 5-8) - Students use the engineering design process to test and improve their event entry. Scrimmage events are designed to engage and expose students to activities in genetics, earth science, chemistry, anatomy, physics, geology, mechanical engineering and technology. Students will showcase their projects on December 7th at St. Joseph Collegiate Institute.
- *The "R" in STREAM* (Grades 4-8) - Integrating various subject areas around central themes in our Catholic Identity.
- *Arcade Academy* (Grades 3-5) - Students innovate, design, build and test arcade games made from cardboard and recycled materials. This activity taps into the world of physics, math, financial literacy, engineering, entrepreneurship and the value of recycling. It culminates with a lunch carnival for charity.

With the guidance of a trained teacher (and volunteers, if available) students will work collaboratively to plan, design, build, program and/or market their ideas and inventions.

In what grade will STREAM teaching be introduced?
At the start, schools will introduce STREAM teaching to a few grades across a few subjects, but eventually, STREAM will be taught across the curriculum from Pre K through 8th grade.

Who will pay for STREAM programming?
As with any new academic undertaking, and this initiative in particular, success hinges on understanding and collaboration on a variety of levels. Many corporations and local businesses have been contacted to partner with our schools to provide financial, technical and/or volunteer support. To date, the interest has been very positive.

Individual donors with an interest in STREAM subjects and the success of our Catholic schools have also come forward offering their technical and financial assistance.

The diocese has agreed to partially fund the STREAM program; and as part of the application process, each school has committed to provide the financial resources necessary for the success of this program.

Who do I contact if my organization wants to partner, help fund or provide volunteers for a school?
If you think your organization might be interested in becoming a major sponsor for the diocesan wide initiative or wants to partner with a particular school, please contact Jean Comer – at 716-847-5523.

As an individual, how can I become involved in this great project?
There are many ways parents, grandparents, alumni, parishioners and other supporters of Catholic education can help. The options are really limitless. Volunteers can come from all backgrounds and levels of experience. If you have an expertise or passion for any subject relating to science, technology,

engineering, any of the arts or math, and you want to volunteer, please contact Jean Comer – Diocesan STREAM Coordinator at 716-847-5523. Or you may contact your school's principal directly.

How else can I help?

If your strength is in (grant) writing, fund raising, community outreach, marketing, PR and/or video technology, you can help fund or promote the STREAM initiative. Those who want to be more hands-on might volunteer to assist running an afterschool, evening or weekend STREAM Academy project. Call Jean Comer, the Diocesan STREAM Coordinator at 716-847-5523, so she can help define a role for you.

How does STREAM work with the Common Core?

The Common Core provides a set of benchmarks and skills that students need to attain at given grade level. How that is done is through curriculum – that is what really happens in the classroom. In a Catholic school, our curriculum is of our making, unlike public schools, we control the curriculum. It is rigorous, measurable and above all Catholic. STREAM is the process by which the information is taught in the classroom.

Parent resources will be available on the Western New York Catholic Schools website, www.WNYCatholicSchools.org. You too can be instrumental in helping us to prepare our children for the jobs of tomorrow.