Future City Competition

Grades 6-8

A national, project-based learning experience where students imagine, design and build cities of the future.

Working as a team with an educator/engineer mentor students are asked to utilize the engineering design process - identify problems; brainstorm ideas; design solutions; test, retest - to build a tabletop scale model of a city using SimCity™ software and recycled materials.

They will then present their research and designs to a panel of judges at Regional Competitions in January.

Winners will represent their region at the National Finals in Washington, DC in February.

BUILDING STREAM… YES WE ARE!

STREAM ACADEMY COURSE BROCHURE

STREAM Academy Courses 2015-2016

- **Focus on inquiry, creativity, complex thinking and FUN!**
- **Emphasize STREAM education learning areas and nurtures the innate curiosity of every child!**
- **Provides a runway for our next generation of believers, innovators, scientists and leaders!**

Grades
Pre-K-1

STREAM SPROUTS

A Dabble in Science

Our Youngest Learners are Natural Scientists.

Teaching science to young children is not as hard as you think – and inquiry science is a natural fit for the way young children see the world. Just as listening to stories and learning the alphabet introduces young children to the world of literacy, inquiry science gives children the building blocks to learn how to observe their world, ask questions, and solve problems. STREAM Sprouts is a perfect avenue to cultivate positive attitude in all things science.

The program combines STREAM concepts with games and activities for our youngest learners; such as Sink or Float, Engineering Design and Water Works.

ROBOTICS

Grades
5-8

Named the #1 Game Changer for STREAM Programs across the Country!

Our Robotics design course offers students an exciting platform for learning about areas rich with career opportunities spanning science, technology, engineering and math (STEM).

The program encourages teamwork, leadership and problem-solving among student design teams. Teachers can easily accommodate a variety of student skill levels.

Robotics culminates in a Diocesan-wide competition in January 2016.

This academy has been enhanced for 2015-2016 to provide additional robotic programming and design opportunities for experienced students.

Next Gen Science Scrimmage

Grades 5-8

A Revolution in Science Education

Our Next Gen Science Scrimmage can be used as a gateway to the *Science Olympiad Competition*, one of the premier science competitions in the nation, providing rigorous, standards-based challenges.

Whether used to prepare for competition, or simply for hands-on fun, scrimmage events are designed to expose students to engaging activities in the ever-changing world of science, technology, and engineering.

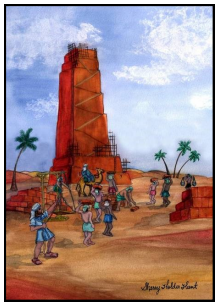
Sample events include: Catapult to the Front of the Line, Whatever Floats Your Boat and Pop! Rocket Launcher.

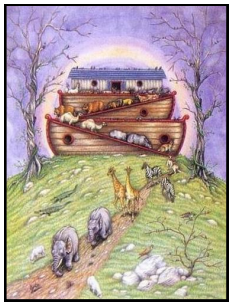
Join us for the 2015-2016 Next Gen Science Scrimmage on Sunday, December 6, 2015 at St. Joseph Collegiate Institute.

PEAP

Grades 1-3

Primary Engineering Adventure Meets the "R" in STREAM





"For every structure is built by someone, but the builder of all things is God."

- Hebrews 3:4

◊ Help David prepare his slingshot to face Goliath!

◊ Assist Noah in building his ark to save animals two by two.

Familiar and timeless stories encourage students to begin problem solving, generate design proposals, collaborate, and make connections to the enchantment of engineering!

PEAP will strengthen students' enthusiasm and knowledge of Old Testament lessons in faith, while adapting the engineering and design process to meet the needs of our favorite bible heroes.

ARCADE ACADEMY

Grades K-8

A Home Run!

Based on "Caine's Arcade," widely cited as one of the most inspirational short films of the decade. This course invites students to design and build fun and engaging arcade games made from cardboard, recycled materials and imagination. The games are then shared with the school community - to help raise awareness and funds for a charity of their choice.

Students will engage in a simple arcade design process that develops creativity, and along the way, they will learn: physics, design thinking, math, financial literacy, engineering, social entrepreneurship and the value of recycling and social justice concepts.

CODING CRAZE

Grades 4-8

Introduces Students to the Language of Computer Science!

This program builds off the international Hour of Code movement. Students will learn the basic concepts of computer science with drag and drop programming.

This is a game-like, self-directed tutorial under the guidance of a classroom teacher. Students will write their first computer program learning repeat-loops, conditionals, and basic algorithms while moving through various levels of programs to meet students' interest and needs.

INVENTION CONVENTION

Grades 4-6

Great Shark Tank Ideas!

Invention Convention sparks students' inventive spirit! Participants are challenged to identify a need or solve a problem using the same procedure an inventor would follow!

Students first learn how inventions and innovations historically evolved. Students are then trained in creative thinking skill activities and will use a problem solving model to invent a product using everyday items.

Using research and communication skills, students will generate commercials to sell their products.

Kitchen Chem… Edible Science

Grades 2-4

Get ready for the coolest culinary academy in the country!

Where can students find a map, a pan balance, and a thermometer? Why, the kitchen of course!

In this academy students will learn the origins of food, healthy food choices, food preparation and the impact of accurate measurement on a recipe's outcome.