



The Kennedy STEM Spotlight

February 8, 2016

STEM Events



TEAM TERMINATORS!

Our First Tech Challenge (FTC) students participated in a robotics competition on **Saturday, February 6** in Greensboro, NC. Teams were required to participate in a 15 minute interview where judges learn about the teams and assess their competitiveness for the awards. Teams are also asked to provide their engineering notebook for the judges to help assess: a team's progress with their Robot throughout the season, the team's background and their journey, and proudest moments as a team. After team interviews, judges observed the afternoon qualification and elimination matches as they continue to assess which teams will win which awards.

This was our very first year having a robotics team and participating in competitions. Throughout the year, our FTC Coach, Ms. Myers, has met with 15 of our students during PL time every Monday and Friday (and some mornings and Saturdays). Students have been working together in order to build a robot and then program that robot using Java code. Once coded, the robot was programmed to move around a playing field while picking up debris and putting it in buckets. Students were also challenged to program the robot to move on its own during an autonomous round-which means they could not control the robot's movements with their controller. One big challenge students faced was programming the robot to climb a mountain. Communication and teamwork play a big part in having a successful team. We hope to start a second team next year!

We are so proud of our students and thankful for Ms. Myers!



Mr. Fernandez's TSA team are heading to Appalachian State University on **Friday, February 26** for their Regional Competition.

During their competition, students will work individually or as a team in technology-based events.

Such events are: VEX robotics, digital photography, environmental engineering, STEM animation, catapult testing, agriculture and biotechnology, website design, dragster design, flight challenge, 3D modeling, and many more!

This is our 2nd year for TSA at Kennedy Middle School. Last year, our students had won 8 medals and 6 trophies during their competitions.

Good luck to all of the students competing!

A big thank you to Mr. Fernandez as our team's head coach. Also, a big thank you to Ms. Myers, Mr. Bennett, and Mr. Davis for all of their help!

STEM in the Classroom

Ms. Houtsma's 6th grade social studies students are currently learning about the Roman Empire in social studies. Starting in March, an enrichment assignment is planned for students to complete an engineering design project. Students are going to be given an engineering task which will be to plan and design a successful Roman Aqueduct using everyday materials. They are to safely and effectively transport water from a mountain (2 liter of water on top of a table) through an obstacle using tubing (stacked books) and empty it into the city (bucket).

As a final mastery project for the unit on soil, **6th grade** students researched the science behind the artificially created islands in Dubai. They then either did an environmental impact study on the creation of these islands or created an advertisement to sell an island similar to the one in Dubai. Students learned about dredging, erosion, and vibro-compaction. Ask your child to see the finished products!!

In **Ms. Robles and Mr. Wolfe's 8th grade science classes**, students are coding their own app as an enrichment assignment. They are using MIT App Inventor which is a beginner's introduction to programming and app creation. Students first watched a few tutorials, chose an idea for an app, then began creating!

In **Ms. Case's 7th grade science class**, students finished learning about the I I body systems. They then created a 3-Dimensional model while showing the four levels of organization: cell-tissue-organ-organ system. Students chose one cell and created either a diorama, clay model, or 3-D poster



STEM Field Trips!

Our **eighth graders** recently took a field trip to the Schiele Museum in Gastonia, NC. Students explored the basic principles of geology including the rock cycle and fossilization, during a hands-on class where students worked collaboratively as “rock detectives” to identify specimens.

Students also explored the functions of the major systems of the human body and how they interact with each other to sustain life. They learned this through a hands-on squid dissection.

On February 24-26, **sixth graders and SAC/AU students** will be visiting the Duke Energy Explorium in Huntersville, NC.

On this field trip, students will watch an electricity presentation that explains what electricity is, how it is produced and transmitted. They will explore electricity through interactive demonstrations, which include the Van de Graaff generator. Students will learn about the McGuire Nuclear Station and how electricity is generated by nuclear power plants.

Students will see what uranium looks like, how a Geiger counter works and will learn about careers in the nuclear industry.

Upcoming Events

February 13: Regional Science and Engineering Fair at UNCC

February 16: Junior Achievement Financial Literacy Field Trip (8th grade)

February 24-26: Duke Energy Explorium Field Trip (6th grade)

February 29: Charlotte Aviation Field Trip (Ms. Myers)

SAVE THE DATE!

Family STEM Night at Kennedy Middle School on April 12 from 6:00-8:00 pm

Kennedy's STEM Habits of Thinking

We encourage our students to apply these habits of thinking in all of their classrooms.

These are also skills and habits that people from a variety of careers exhibit on a daily basis.

Inquire

Collaborate

Investigate

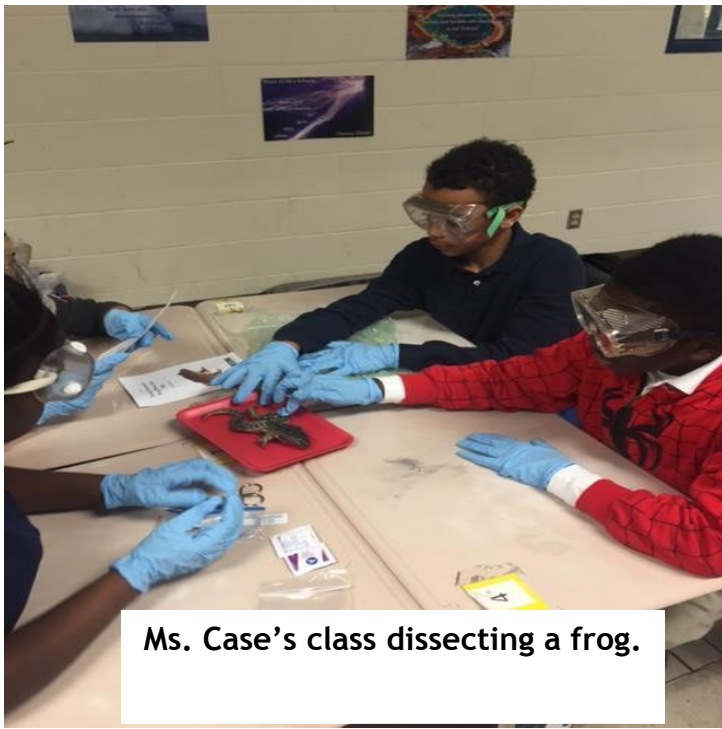
Innovate

Design

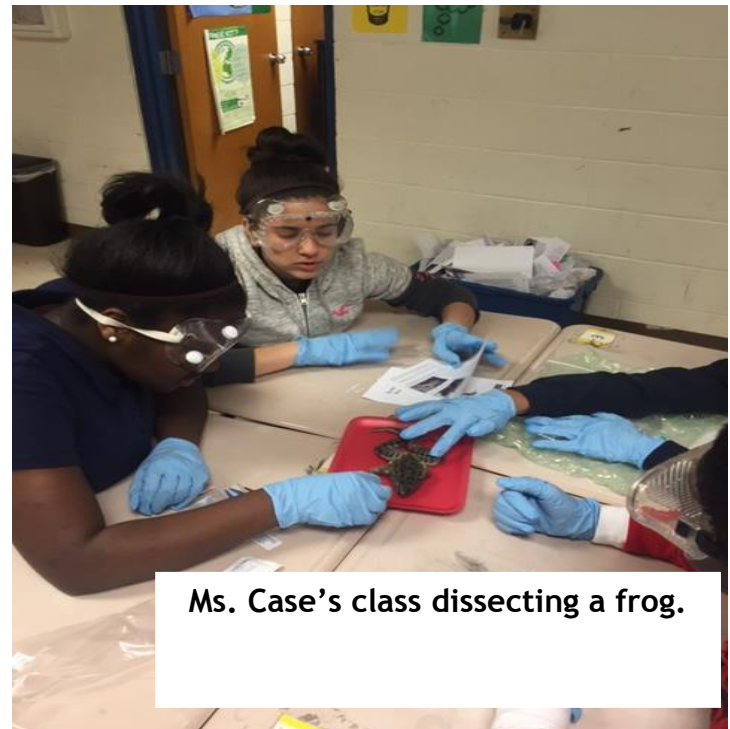
Reflect



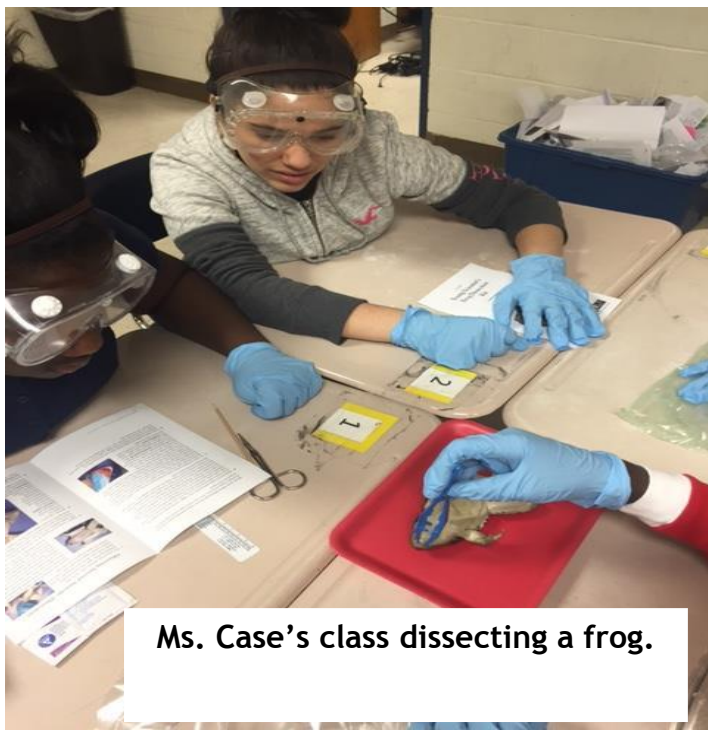
Photo Gallery



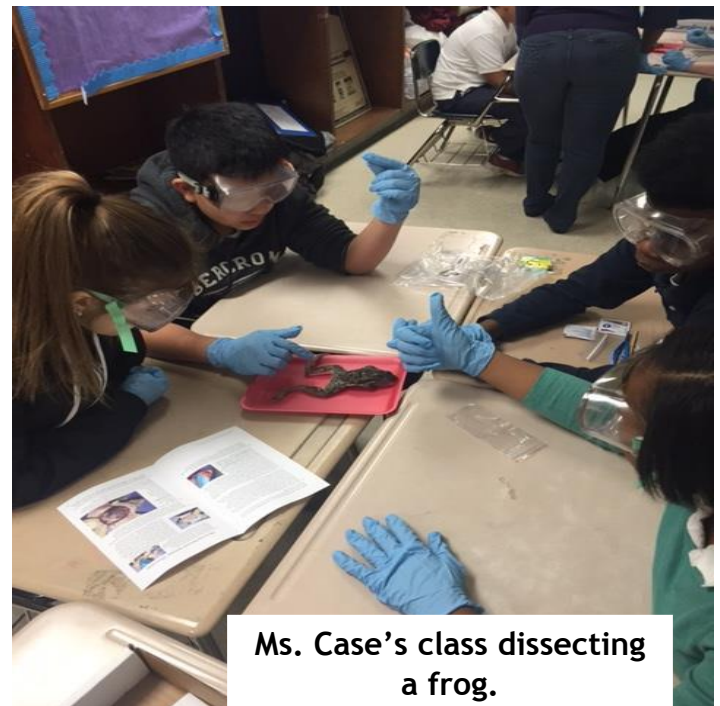
Ms. Case's class dissecting a frog.



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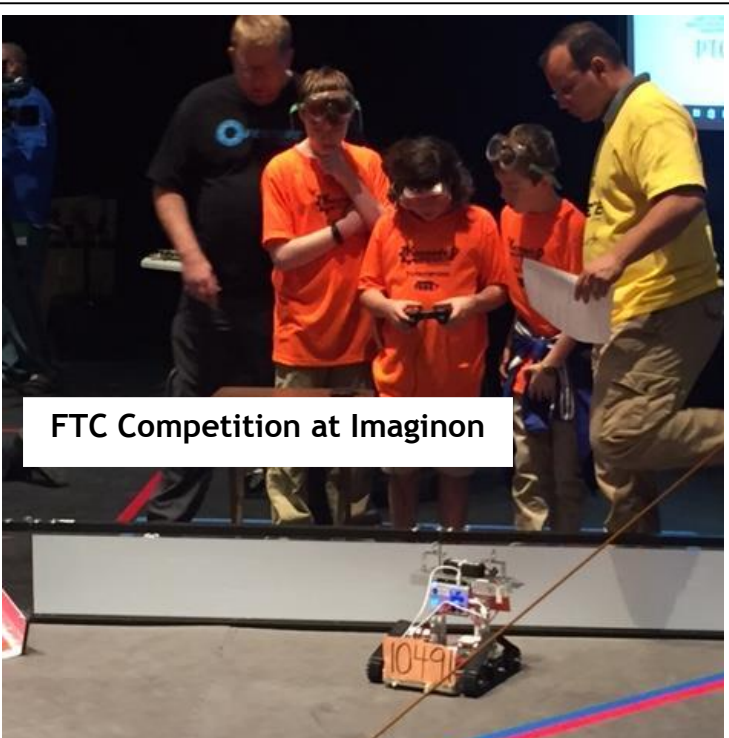
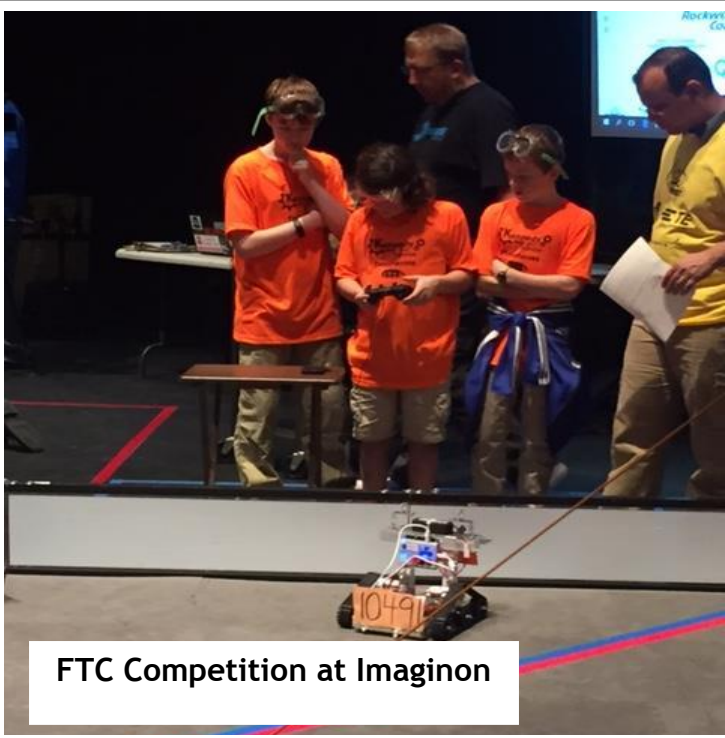
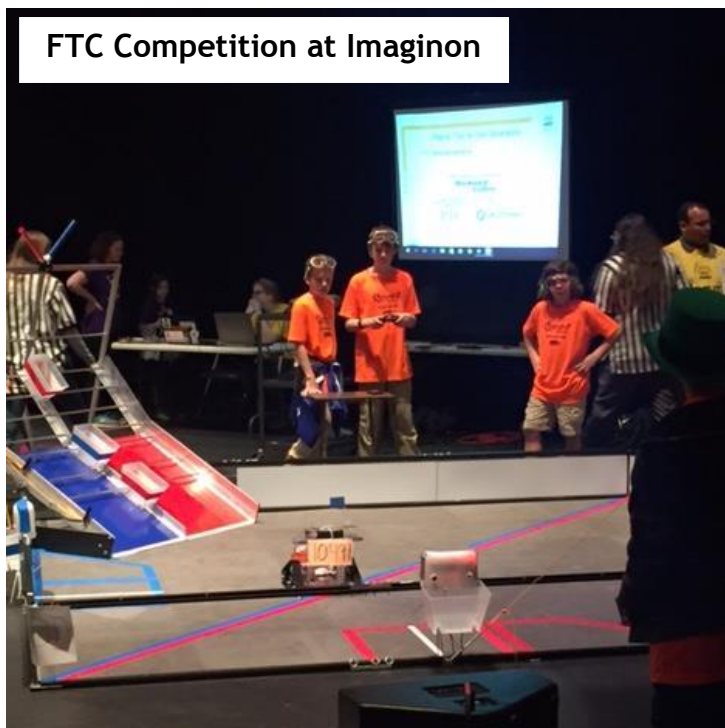


Photo Gallery

FTC Competition at Imaginon



FTC Competition at Imaginon



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FTC Competition at Imaginon



Photo Gallery



FTC Competition
at Imaginon



Soil exploration in Ms. Kelly's
science class.



Schiele Museum Field Trip



Schiele Museum Field Trip

Photo Gallery

Schiele Museum Field Trip



Schiele Museum Field Trip



Schiele Museum Field Trip



Schiele Museum Field Trip



