

# Kennedy Middle School STEM Partial Magnet

2017-2018



# Purpose - Why are we here

The goal of tonight's presentation is to:

- Learn about daily life at Kennedy Middle School and school specific offerings
- Define middle grades STEM
- Discuss how the STEM magnet program is infused into the school curriculum
- Questions



MYTHS



# Reality



 **cms**<sup>®</sup>  
REACH FURTHER.  
Global competitiveness starts here.

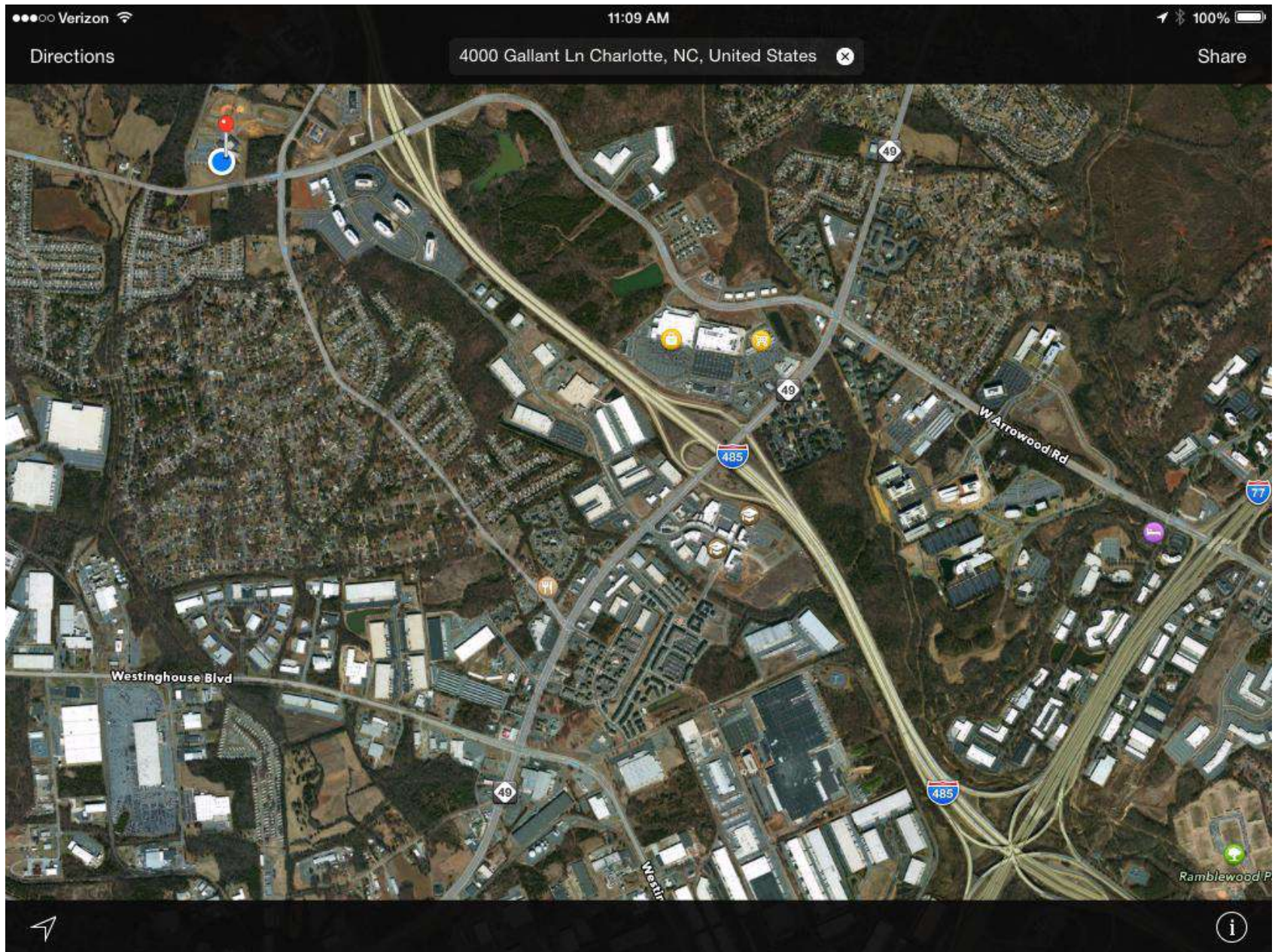


# Quick Facts

- Grades 6-8 – Third year as a STEM Partial Magnet
- 2016-2017: Filled 100 seat allotment and have a waitlist
- 8:45-3:45 school (Students can enter at 8:15)
- Current enrollment: 910 students
- Diverse setting: 40-30-20-10
- 1:1 early adopter school - Chromebooks
- Personalized Learning focus
- Elective Offerings: Automation and Robotics, Design and Modeling, Computer Science, Energy and Environment, Flight and Space, Medical Detectives, Robotics Lab, Science Lab, Band, Orchestra, Art, Chorus, PE, Spanish
- 55 Teachers and 20 additional staff
- Uniform School – Khaki or Navy bottoms – White or Navy polo shirts



# Location



# Educational Pillars/Beliefs of Kennedy

- Create a safe and orderly learning environment
- Place an emphasis on developing the whole child
- Focus on instructional best practices and create a learning environment that includes a STEM curriculum and Personalized Learning within a 1:1 setting





# Safe and Orderly Environment

- Student opportunities to misbehave are limited
- Bullying is taken seriously with interventions and disciplines applied
- No lockers
- Dean of Students and AP for all grade levels
- Culture/Climate focus on order





# Developing the whole child

- Learning experiences through PL time (Video Game Design, Coding - HTML, Fence Art, Book club, Robotics, Minecraft Experience, Fantasy Football)
- Spelling bee, Yearbook, Green Screen News, Newspaper, Athletics
- Chemistry Bowl, Science Fair, Wonder Robotics Challenge, Science Olympiad
- Google Chrome Squad
- TSA - Technology Student Association, VEX Robotics and FTC Robotics Team



# Robotics: VEX and FTC



# Schedule

- Core classes (Math, LA, Science, and SS) meet for 60 minutes everyday
- Elective classes meet for 60 minutes every other day (A day / B day) - semester and year long electives
- PL Time - 90 minutes a day – Literacy Focus
  - Flexible grouping
  - Interest grouping
  - Learning experiences
  - Enrichment / Remediation



# Instruction - Personalized Learning

- Instruction is based on student's ability level
- Class rosters in Math and LA grouped by EOG
- Teaching the same thing at the same time to an entire class 100% of the time is not best practice
- Learning Pathways - Instructional models designed for different level learners
- 1:1 - Full implementation of Chromebooks
- Instructional platform - Google Classroom / Canvas
- The curriculum drives the use of technology





# What is STEM?

- Science, Technology, Engineering and Mathematics
- Life sciences, physical sciences, mathematics, statistics, computing, engineering and technology
- STEM in the middle school setting
  - Expose students to a variety of STEM activities, high schools, businesses and careers
  - Provide students with background knowledge in various themes and operating systems (Coding, Green Screen, IOS, Win systems, Chrome)



# Specifics of the STEM program at Kennedy

- 100 seats for rising 6th graders in 2017-2018
- Magnet Lottery selection process UPDATED
- Inclusion into established STEM options at Kennedy
  - Chrome Squad, Green Screen, 1:1, PL, TSA, Coding Experience, Video Game Design
- Access to STEM field trips and speakers
- Priority to STEM elective offerings
  - Design, modeling, automation, robotics, energy in the environment, medical detectives, Science Lab, Robotics Lab, Flight and Space



# STEM Clubs and Notable Events

## STEM Clubs

- FTC Robotics Team (TE Connectivity \$4000 sponsorship to our robotics teams)
- Science and Engineering Fair
- Science Olympiads
- Environmental Club
- Chrome Squad
- TSA (Technology Student Association)
- BASF Chemistry Bowl

## Notable Events

- Summer STEM Day at Kennedy for rising 6th grade STEM students
- CodeGirl documentary for female students
- Maker's Space established for students to create, build, tinker, and program a variety of robots
- Wonder Robotics Challenge with Dash and Dot
- Carnegie Mellon curriculum
- Regional Robotics Competition Site
- FiTT Saturday Site
- STEM Night (2<sup>nd</sup> semester)



# Community Speakers and Field Trips

Community Speakers/Presentations	Field Trips
<ul style="list-style-type: none"> <li>• FBI online safety presentations</li> <li>• Duke Energy “Energy Agents” Theater Presentation</li> <li>• Meteorologist, Lyndsay Tapases from WCCB, weather presentation</li> <li>• CPCC architect/engineer presentation</li> <li>• UAV Drone presentation and flight</li> <li>• EMT presentation to health class</li> <li>• InTech presentations and activities to inspire girls in STEM</li> <li>• Siemens Energy station rotations</li> </ul>	<ul style="list-style-type: none"> <li>• Tech Fest at Olympic High</li> <li>• NASCAR Hall of Fame</li> <li>• Charlotte Motor Speedway</li> <li>• Laser Quest</li> <li>• Apple Store</li> <li>• Schiele Museum</li> <li>• Carolina Aviation Museum for Flight students</li> <li>• Carolina Aviation Museum –Females in STEM program</li> <li>• BASF Chemical</li> <li>• Discovery Place</li> <li>• Duke Energy Explorium</li> </ul>





# Kennedy's STEM Habits of Thinking

**Inquire**



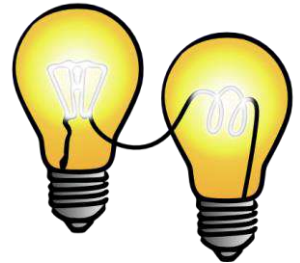
**Collaborate**



**Investigate**



**Innovate**



**Design**



**Reflect**



**Parent Reflection/Next Steps:  
Open House for prospective STEM  
parents and students**

**When:** Wednesday, January 11,  
from 6:00-7:30 pm

**Where:** Kennedy Middle School



# Questions

