

# STEM NEWS

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**SPECIAL POINTS OF INTEREST:**

- **What is STEM?**
- **Why STEM Education?**
- **What is the STEM Framework?**

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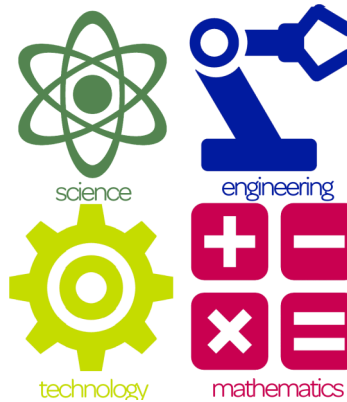
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## What is STEM?

STEM is an acronym for the integration of the four disciplines of Science, Technology, Engineering, and Mathematics. STEM education prioritizes the study of science and mathematics, plus the meaningful integration of technology and engineering design that offers opportunities for innovative problem solving while making science and mathematics relevant and engaging.

STEM education includes a variety of course options that integrate curriculum across content



areas such as computer science, robotics,

sustainability, environmental studies, marine science, urban transportation, financial literacy, urban gardening and farming, communication, green construction, facility maintenance, and health and wellness, to name a few. Many advocates of STEM also incorporate the arts (as in STEAM), in addition to history and literacy.

## Why STEM Education?

U.S. economy will demand 123 million high-skilled workers with strong background in science, technology, engineering and math.

STEM jobs are overwhelmingly in high de-

mand and will account for about 38% of all the high-skill jobs created. They are also typically among the highest paid. The “new” 21st century jobs require a growth mind-set, the ability to



solve problems, think critically, be innovative, multitask and work collaboratively with a diverse group of colleagues. Our students need to be prepared for this new global reality.

## Grade 2 and the Salvadori Center



Ms. Juliana Wong from the Salvadori Center has been engaging our second graders in an 8 week module entitled, My Community. The students investigate the kinds of structures and architectural elements that make up a “community.” Students

design building facades, arrange geometric compositions that represent their community, and explore the characteristics of their neighborhood through a learning walk. For their final project, students work together to create a

mode of their ideal community.



## Project Green Reach

Project Green Reach (PGR) is Brooklyn botanic Garden’s semester-long outreach program for teachers and their students from K-8 Title I schools in Brooklyn.

Ms. DelPriore and Mrs. Stephen attended a teacher Orientation Workshop on February 10, 2016.

They are scheduled to have an in-class visit and will also take a field trip to Brooklyn Botanic Garden.

They will be working on “Kitchen Botany” and were given lima beans and peanuts to plant and investigate. They will also be dissecting carrots.

The scientist is not a person who gives the right answers, he’s one who asks the right questions.

Claude Lévi-Strauss

thepeopleproject.com



## STEM Framework

The NYC STEM Education Framework is a tool that provides a structured approach for schools seeking to organize and develop the implementation of a STEM initiative whose results are repeatable. It includes a readiness checklist of structures, criteria and systems and is not intended to be judgmental or evaluative.

# Engineering with Mrs. Campanella

Students in grade 5 learned about the contributions of Sir Isaac Newton. He described the 3 Laws of Motion.

1. An object at rest will stay at rest and a moving object will keep moving in a straight line with constant speed until a force acts on the object.
2. An object accelerates be-

cause a force acts upon it.

3. For every action there is an equal and opposite reaction.

The fifth graders explored the laws using blocks and thought about real life situations of each law.

The students then designed and constructed mazes in order to use a marble to test the three laws of mo-

tion.

The fifth grade is planning a parent engagement event to showcase what they learned.



*“Engineering is the art of directing the great sources of power in nature for the use and convenience of man”*

## National Engineers Week

February 21-27, 2016 is National Engineer Week. In order to kick off our STEM initiative we are celebrating this week to acknowledge how engineers make a difference in our lives. The purpose of National Engineers Week is to call attention to the contributions to society

that engineers make. It is also a time for engineers to emphasize the importance of learning math, science, and technical skills.

During this week, we are dedicating some time to learn about engineers and reflect on the contributions they have made to make our

lives easier, more efficient, or more fun!

Each grade was assigned a different engineer to learn about during this week. Everyone was provided with background information and some suggested activities and resources to use.

## STEM Bulletin Board Stop & Jot Spot Highlights

- Class 3-303 has 2 new robots “Dot” and “Dash”. Come visit them?
- I watched the 5th graders plan and construct jewelry holders using the engineering design process. –Ms. Green
- Seeing the jewelry holders by 5th grade was great! It shows how much work it took to complete. –Ms. Garland
- Students in 4-503 are constructing a hotel plan using math skills.
- 4th and 5th grade are using cookshop to teach about healthy food and portions using fractions.
- Class 4-509 will be visiting the Cooper Hewitt Smithsonian Design Museum for an interactive tour and workshop on Feb. 29.

\*\* Remember to check the STEM Bulletin Board outside of Room 308 for any updates, happenings ,and resources.



If you have any questions about STEM please do not hesitate to ask any member of the STEM Committee.

- Cathy Campanella, STEM Coordinator
  - Debra Calcagno
  - Sara Di Martino
  - Rachel Eisig
  - Marissa Garland
  - Danielle Green
  - Janine Kraljev
  - Donna Lachok
  - Carolyn Larsen
  - Rivky Lehrfield
  - Diana Mejia-Linares
  - Jamie Valela

## Upcoming Events

*Stay tuned for school wide STEM events and activities!*