WHY FOCUS ON STEM?

Students bring a natural curiosity about their world to the classroom. STEM education takes advantage of that curiosity to enable children to actively engage in their leaning.

STEM provides an interdisciplinary approach to learning where rigorous academic concepts are coupled with real world lessons as students apply science, technology, engineering, and mathematics in situations that make connections between school, community, work, and the global enterprise.

STEM at Macdonough School

The Science, Technology, Engineering, and Mathematics program at Macdonough School is designed for students in grades 4-5 who are curious about the natural world and enjoy learning through a hands-on, inquiry based approach to learning. Technology and engineering design is infused in all aspects of every curricula to enhance the learning experience.

EXTENDED LEARNING OPPORTUNITIES

The STEM program at Macdonough will provide students with a variety of extended learning opportunities including:

- Field trips to extend learning and create connections to learning to the world around us.

- In-School enrichment programs include alternative recess programs, chess club, running club, and Oddfellows Play Production.

- A partnership with Wesleyan University encourages college and career readiness and prepare our students for the future.

- Exciting after school enrichment programs include Coding, Through My Window, Lego Robotics, and 3D printing.

- Summer enrichment camp to extend learning.

For more information about STEM at Macdonough School
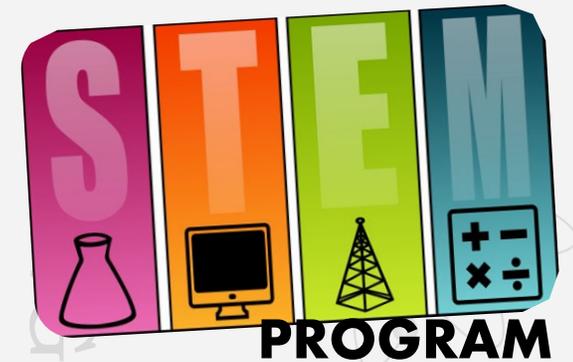
Please contact:

Jon Romeo: Principal

- Email: romeoj@mpsct.org

- Phone: 860-347-8553

John Ferrero: STEM Teacher

- Email: ferreroj@mpsct.org

- Phone: 860-347-8553

MIDDLETOWN PUBLIC SCHOOLS

STEM PROGRAM

SCIENCE

MATH

ENGINEERING

TECHNOLOGY

Macdonough School
66 Spring Street
Middletown, CT 06457

Phone: 860-347-8553

www.middletownschools.org

MPS STEM MISSION STATEMENT

Middletown is committed to educating all students to their fullest potential. The STEM program promotes students to become: **problem solvers, innovators, self-reliant, logical thinkers, and technologically literate.** Consequently, our students will develop into respectful citizens with world-class skills who are ready to meet the global challenges of the future.

What is a STEM Education?

STEM Education is a new movement in American Education to help teachers and their students understand how the academic disciplines of Science, Technology, Engineering and Mathematics impact their world and prepare them for the workforce of tomorrow. STEM is multidiscipline based, incorporating the integration of other disciplinary knowledge into a new whole. Technology helps us communicate; Math is the language; Science and Engineering are the processes for thinking; all this leads to Innovation and Creativity.

Science

Science education will revolve around the eight science practices as described in the Next Generation Science Standards. Students will ask questions, develop and use models, plan and carry out investigations, use mathematics and computational thinking, construct explanations, engage in argument writing from evidence, and obtain, evaluate and communicate information.

Engineering

The engineering component will allow students to define and design solutions for problems. Students will use their imaginations to visualize the connections between what they learn and the real world.

The programs will also help students develop an awareness of engineering and science careers.

Mathematics

Mathematics is the language of science. Therefore, mathematical computations are infused throughout the various STEM curricula in an effort to develop math fluency. Improved math fluency encourages students to persevere through more complex problems in math and science.

Technology

Students in the STEM programs will use technology regularly to foster their understanding of how technology assists engineers in designing solutions for problems.

Computers, tablets, and 3-D printers are some of the latest technology students will have the opportunity to experience. A variety of web-based programs will be used by students to enhance learning.

STEM at Macdonough School