

## WCSD is En Route

Individuals increasingly must understand the subjects collectively known as STEAM to thrive in today's society, and schools accordingly are challenged to provide high-quality innovative learning experiences and environments to all students. Teachers are at the forefront of meeting this challenge, and the quality of their instruction therefore acts as a major fulcrum for improving education, by developing knowledge and skills in our students to solve tough problems, gather and evaluate evidence, and make sense of information.

Through the use of Three Technology Integration Specialists and a STEAM Professional Developer, teachers and students at WCSD are meeting the STEAM challenge head on.

Students in kindergarten had to address the newly adopted New York Science and Learning Standards (NYSSLS), as well as International Society for Technology in Education standards (ISTE). Students had to work through a series of cross curricular hands-on, as well as technology enhanced lessons. The students employed Science and Engineering Practices (What Scientists Do) as well as Crosscutting Concepts (How Scientists Think). In this unit kindergarten students worked as young scientists and investigated the physics of pushes and pulls and how a different magnitude (strength) of force affects how objects respond to that force. Students had to analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or pull. The students had to define directions (left, right, forward, back, near, far). They used Bee Bots and grids to determine the path that an object takes, as well as record and described the direction. The tasks could be considered a precursor to coding in Computer Science.

