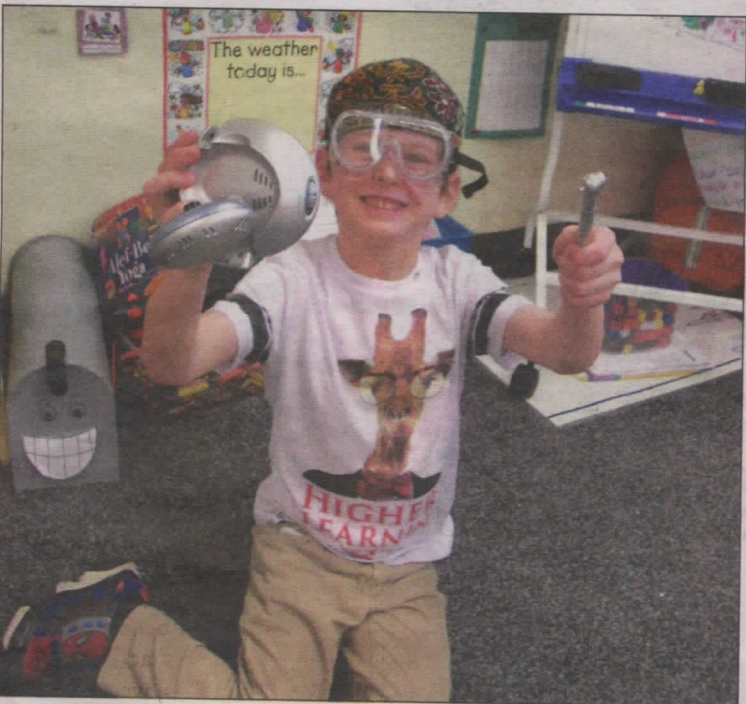


STEM advances aid MetroWest students



Kindergarten robotics is among the newest offerings at MetroWest Jewish Day School in Framingham.

By Solomon Rosenberg
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MetroWest Jewish Day School (MWJDS) has made a number of innovative changes to its curricula in the past year. The advances made in the area of STEM (science, technology, engineering and mathematics) are of particular note and have already drawn rave reviews from students and teachers alike.

The changes to the STEM curricula were as comprehensive as they were creative, and featured both the reformulation of current standards as well as the introduction of exciting new programs and partnerships.

One of the main focus points in the school's efforts to enhance its STEM programming was to engage even the youngest of the students. In the kindergarten classroom, MWJDS introduced a robotics module that incorporated mechanical engineering through the construction of basic devices, as well as a primer on electronics. The 4th-grade class participated in a corresponding robotics course that saw the students designing and constructing mechanisms that they could control through a computer interface. The older students were so captivated by this activity that they devoted one of their kindergarten "buddy sessions" to one-on-one introductions to the computer programming used to bring their projects to life.

The educators at MWJDS also reached out to new partners to enrich the STEM curricula. Last year, MWJDS became the first school in North America to participate in the James Dyson Foundation "Ideas Box" and "Engineering Challenge" grants programs. Throughout the year, the James Dyson Foundation sent machinery, either intact or deconstructed, and lesson ideas that incorporated the provided materials. The program is designed to teach lessons on structure and function and to encourage curios-

ity. Through her experiences with this program, one of the students was able to repair a damaged vacuum cleaner in her own home.

MWJDS also expanded another of its significant partnerships this year, with the neuroscience department at Wellesley College. In conjunction with Dr. Marc Tetel, school parent and professor of neuroscience, MWJDS designed a course of study that introduced the middle school classes to the core principles of the field of neuroscience as well as lessons and hands-on training in techniques associated with neuroscience research. Through the partnership with the college, MWJDS students were able to visit a series of neuroscience laboratories at the Wellesley Science Center and were even afforded the opportunity to try their hands at some of the experimental neuroscience procedures.

The neuroscience curriculum is of special interest to Rav-Hazzan Scott Sokol, director of education at MWJDS, who has a strong background in the field. Sokol, who earned his M.A. and Ph.D. in psychology from Johns Hopkins University, said he was particularly excited about "donning my cognitive neuroscientist hat to join with Dr. Tetel in teaching our students some of the fundamentals of neuroscience, including findings from my own area of expertise, behavioral neurology." Sokol was also noted that he was encouraged by the combination of experimental lab work, theory and practical application in the novel curriculum.

The success of both the retooled and newly initiated programs in STEM has the whole MWJDS community enthused about the upcoming school year and excited to explore new subjects and develop new partnerships with the greater community.

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