

## **“KnowAtom” makes science the favorite time of school day**

**By DAN TOMASELLO**

**NORTH READING** — The School Committee was given a personal view of how the KnowAtom science program is helping third and fourth graders develop a love of science Jan. 14.

KnowAtom is a Massachusetts-based curriculum development and consulting company that offers solutions to help schools and districts reach their performance goals. KnowAtom’s team of science educators and managers has created a science, engineering and technology (STEM) system for elementary and middle schools.

The STEM system provides a complete, standards-based curriculum that is accompanied by prepared materials and professional development. The system supports the Next Generation Science and Common Core Standards while also meeting performance metrics. KnowAtom equips classroom teachers to direct fun, hands-on, inquiry lessons that helps students master the scientific processes and the engineering design process.

KnowAtom is currently being used by third and fourth grade students, and Superintendent of Schools Kathleen Willis said she wants to expand the program to fifth grade next year. The program has been used at all three elementary schools in town for the past four years.

J.T. Hood School fourth grade teacher Christy Gorman said KnowAtom has created a “spiraling” scientific curriculum that is designed to ensure students receive a comprehensive review of previously learned scientific concepts and applying them to new inquiry based activities. Gorman said the program has helped expand student’s knowledge as well as making them more engaged in the classroom.

“Each KnowAtom lesson is designed around individual student projects that brings abstract concepts to life,” said Gorman. “They believe by creating something tangible and relevant to each lesson, students develop personal connections that positively reinforce their learning experiences in science and engineering.”

Gorman said the program has become incredibly popular with her students. “I enjoy watching my student’s faces light up each time I say ‘let’s get ready for science,’” she commented. “It’s their favorite time of the day.”

The Hood School teacher also said KnowAtom helps students improve their critical thinking skills, as students are provided with necessary tools to solve science-based questions and engineering challenges.

Little School first grade teacher/science curriculum leader Beth Leavitt showed the committee a series of videos of Little School fourth graders from Donald Simmons’ class. The video clips demonstrated how students participate in science experiments involving sedimentation. In one of the videos, students demonstrated water precipitation in a diorama set.

Students also have to keep records in journals after conducting experiments, and Batchelder fifth grade teacher/science curriculum head Tina Borek showed a journal from a fourth grade student. The journals are used to demonstrate the procedures students undertake during and after experiments.

The School Committee participated in a live demonstration simulating how gravel and sediment settles into the bottom of a lake after a storm. The three teachers assisted the committee during the demonstration.

Committee members enjoyed themselves immensely during the interactive presentation and were just as engaged as the students shown in the videos.

"I am changing my field and going into science," joked School Committee Chairman Mel Webster.

Webster inquired if the elementary science program previously included hands-on activities for students to use before KnowAtom was launched. Leavitt said there were previous hands-on activities students participated in, but they were not as detailed as KnowAtom.