Marlington elementary students gained hands-on science experience at a field day at Marlington Middle School on Tuesday.

Students involved were third-, fourth- and fifth-graders from Lexington, Marlboro and Washington elementaries who are identified as gifted and attend the district's Gifted Education for Marlington Students (GEMS) program.

The event was made possible through a grant from the National Science Foundation partnered with the Stark County Educational Service Center.

Stations included using GPS devices, hydrology, bud burst, measuring surface temperature and soil sampling.

Students learned how a GPS device works and used latitude and longitude readings to locate items, identified horizons of a soil profile and measured and recorded top and bottom depth for each horizon, measured pH using a pH meter and measured electrical conductivity to estimate dissolved solids, examined relationships between budburst and climate factors and used infrared thermometers to take surface temperature readings.

Each outdoor station was led by either a Kent State University professor or graduate student involved with the Northeast Ohio Geoscience Education Outreach (NEOGEO). Science and Math on the Move (SAMM) provided GPS devices and infrared thermometers.

The goal of the NEOGEO project is to enhance earth science education by introducing educators and students to inquiry-based curriculum modules bases on analysis of the local environment using field methods and online geospatial databases.

"It brings kids together to try to get them used to their environment and see how aspects of the environment work together," said Mandy Munro-Stasiuk, professor of geography at Kent State.
According to Marlington gifted specialist Ginny Loudon, the field day was planned as a culmination of the student's year-long study on different kinds of systems. Gifted students, also taught by gifted specialist Darlene Cribbs, have recently been studying ecosystems, Loudon said.

Loudon said the event was an opportunity for students to see how various data collection methods come together and allowed them to be involved in collecting the data themselves.

"Usually kids this age wouldn't have a chance to use this equipment," Loudon said.

"They really seem to be enjoying it," said Loudon during the event. "They're really absorbing some of this information."

Email the author: jbowen@alliancelink.com

[Photos below]

Marlington student Megan Luthie uses a device to check the pH of a pond near Marlington Middle School Tuesday as part of the school's science field day.
Deborah Mokaren, at left, a Kent State graduate student, holds a branch as Marlinton elementary students Regan Pester, Sarah Bowe, Marta Bixler and Amanda Rentsch attempt to identify a tree based on the types of buds.