

# NEW JERSEY Jewish Standard

## Learning by doing at Ben Porat Yosef

Abigail Klein Leichman | Local |

*Published: 03 December 2010*



Na'ama Papier, Dasie Fisher, Michaela Niewood, and Michael Goldberg, work at the “ant” station to find how many marbles weigh a pound. Photos courtesy Ben Porat Yosef

Estimating, measuring, comparing, and calculating just got a lot more fun for first- to fifth-graders at Ben Porat Yosef in Paramus.

The kids recently hopped and ran their way through the day school’s first Discovery Learning Day. This new experiential program joins science and math — and reading, too. Teachers used David Schwartz’s popular “If You Hopped like a Frog” as a jumping-off point (literally) for the boys and girls to compare their physical abilities with those of the frog, ant, pelican, and spider featured in the storybook.

Science specialist Jean Myers and math specialist Cindy Wiesel devised the program as a way to integrate lessons in the two disciplines. “We discovered that so much about science is measurement. We wanted the children to have a hands-on experience with concepts such as distance or elapsed time or volume or mass to have a sense of what that means,” said Wiesel.

They created four stations based on four of the animals in the Schwartz book, which colorfully compares different creatures’ physical abilities with those of humans. Classroom teachers read the book to their students beforehand.

A frog can hop 20 times its body length, so if a child could do the same, how far would that hop take them? Spiders can scurry 33 times their body length in one second; the kids were timed as they ran along a marked track showing how far 33 times an average child’s body length would reach.

Knowing that a pelican can gulp a volume of food into its mouth that is three times what its stomach can hold and that a human stomach holds about a pint, the children guessed which of several containers was pint-sized and which was three times larger. They tried to estimate how heavy an object they would have to lift to get anywhere near an ant’s ability to carry 50 times its body weight. Using a huge scale built by Wiesel’s husband, Israel, they tried to guess how many marbles add up to one pound (answer: 87) and then compared the weights of different fruits.

As documented on a video of the event ([www.youtube.com/watch?v=naQ7AjqgwIM&feature=player\\_embedded](http://www.youtube.com/watch?v=naQ7AjqgwIM&feature=player_embedded)), each of the 100 children carried a clipboard from station to station and entered answers to questions geared to different grade levels. A live frog and an ant farm were part of the props in the school’s gymnasium.

This type of program is referred to by educators as “authentic learning,” said Stanley Fischman, director of general studies.

“The value and concept behind the program is to teach students math and science in a practical way that they will be excited about, and that helps them truly understand concepts and be able to apply them,” he said. “In this way, we are building an important foundation for all future science and math education.”

Author Schwartz was invited to attend the event inspired by his book, but since he is on the West Coast he suggested instead holding a live assembly with the kids via Skype the following day.

“He was so pleased with our project and how it reflected on his book that he waived his fee and asked only that we send him a video of our Discovery Learning Day,” said Wiesel. “He has written several books about math and measurement, and he said this is the first time he heard of a school basing an activity on that particular book.” Ahead of the virtual assembly, teachers helped their pupils prepare questions for the author.

In the spring, another school-wide Discovery Learning Day is planned, probably focusing on an engineering project. “We want to do something a little different each time, tied in with a different book,” said Wiesel. Smaller-scale programs may be introduced for each grade level more frequently during the year.

In keeping with Ben Porat Yosef’s philosophy of integrating Hebrew language into the whole curriculum, Wiesel and Myers plan to add Hebrew labels to objects at each station in future programs. Among the stated goals of Discovery Learning is “Sharing our collective understanding and appreciation of HaShem’s wondrous creations,” which Fischman said dovetailed well with the school’s annual theme of giving thanks via the blessings recited daily.

“A program like this gives them a sense of wonder of God’s creation,” he said.



Yosef Kryzman hops to see how many frog-lengths he can reach with one jump. With him are Anna Margolin, Michelle Elmann, and Dalia Efremoff.