

June 2, 2017

Bethlehem Area School District Creates Math Achievement Record With First In Math® Online Program

Third graders from the Bethlehem Area School District (BASD) have set a record in math achievement using the First In Math (FIM) Online Program. FIM is an online math-practice tool for grades K through 8. Implemented in 5,000 schools in the US and abroad, this unique curriculum supplement has impacted more than 20 million students since its inception.

In the Fall of 2016, BASD and FIM embarked on a partnership to introduce a breakthrough in math fluency—the Very Important Facts® (VIFs®) System—in 16 elementary schools for students in grades 1 through 5.

The goal was ambitious: have 70% of all Third-grade students complete two rigorous VIFs addition and subtraction modules by the end of the 2016-17 school year. To complete them, students must be able to add and subtract any two double-digit numbers using mental math—a skill many adults have trouble with. To examine how the VIFs system creates success, consider this Subtraction module example: 1) students learn key mental-math strategies, and 2) students apply the newly-learned strategies to solve seven sample problems consecutively, without a mistake, in approximately 13 seconds per problem.

$$\begin{array}{ll} 39 - 25 & 42 - 38 \\ 51 - 36 & 94 - 87 \\ 77 - 44 & 66 - 29 \\ 54 - 17 & \end{array}$$

On the morning of May 3, 2017, a third grader from Fountain Hill Elementary became the 644th student, from a pool of 920 students, to complete both VIFs modules, taking the district across the finish line and fulfilling the end-of-year goal. This sustained momentum is proof that the VIFs System is positively impacting students' learner identities, enabling them to persevere in math practice and become fluent at mental math.

The Very Important Facts System is the brainchild of First in Math creator, Robert Sun. Last year, Sun performed an analysis of user-performance spanning a decade on FIM. Data across user profiles revealed that subtraction is the Achilles heel for most students, preventing better math performance. Without a firm grasp on foundational facts, students find it nearly impossible to work through higher-order mathematics such as algebra. This corresponds to the findings of the National Assessment of Educational Progress.

Sun's analysis led to the innovation of the newly-launched VIFs System that addresses this issue by **identifying that there are only 16 facts that students need to know from memory**. VIFs integrates the two most widely used digital contents today—instructional videos and digital games. Short videos explain concepts, followed by an engaging game for rigorous practice and benchmark assessments that are interspersed to ensure retention.

The BASD - FIM partnership is ready to propel math achievement and success for students across the learning spectrum. To fulfill this goal, an incremental target of 10% gain per year has been set, so that by 2018-2019, the partnership hopes to record that 90% of all Third-grade students have achieved completion of the VIFs. Current VIFs data indicates BASD has much to be proud of, and the 2016-17 school year ended with a completion rate much higher than 70%.

By year-end, 14 of the 16 BASD schools have exceeded the 70% goal: Asa Packer (100%), Hanover (97.4%), Clearview (92.7%), Miller Heights (92.5%), Spring Garden (91.4%), James Buchanan (90.9%), Freemansburg (90.6), Calypso (87.9%), Farmersville (82.4%), Donegan (82.2%), Thomas Jefferson (81.1%), Governor Wolf (79.1%), William Penn (73.9%), and Marvine (72.7%).

For Third grade, the district VIFs completion rate stands at 82.6%. In grades 1-5, presently 34.3 % or 1,650 students, have completed VIFs and mastered fluency in addition and subtraction. The average time taken to complete VIFs ranges from 1.5 hours for strong students to six hours for the weakest. VIFs takes students, across multiple grade levels, to fluency in record time, and has proven its ability to scale and impact a diverse student population.

First in Math rolled out the VIFs Multiply module in the last week of April. In just five weeks, 535 BASD students (grades 1 to 5) have already completed it, demonstrating the ability to multiply any two double-digit numbers. In the coming school year, VIFs will also launch a module for division, creating the first-ever, truly effective fact fluency system for all operations - Addition, Subtraction, Multiplication and Division.

Together, the Bethlehem Area School District and First In Math aim to extend value beyond performance, and boost the self-esteem of our young learners.

Contact: Suntex International Inc.
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BASD Third grade VIFs completion

Finished VIFs ADD: 90.3% (829 students) – Add two double digit numbers

10K Facts

97 + 75 164	95 + 69 132	45 + 87 172
69 + 66 172	76 + 96 121	85 + 47 136
89 + 37 132	62 + 59 135	69 + 67 126

+

VIFs Add Double Digits

Add any two double-digit numbers

Examples
 $22 + 33 = 55$
 $46 + 77 = 123$

72

Round: 4

change rounds

Finished VIFs SUBTRACT: 82.6% (759 students) – Subtract two double digit numbers

10K Facts

51 - 10 30	76 - 74 12	28 - 13 41
66 - 44 9	42 - 25 20	65 - 53 22
43 - 23 2	79 - 49 17	28 - 19 15

-

VIFs Subtract Double Digits

Subtract any two double-digit numbers

Examples
 $58 - 45 = 13$
 $95 - 67 = 28$

78

Round: 4

change rounds

Finished VIFs MULTIPLY: 25.2% (231 students) – Multiply two double digit numbers
 (In 5 weeks)

10K Facts

50 × 85 4140	68 × 26 4250	76 × 43 1728
27 × 64 3100	32 × 94 2610	30 × 87 3008
62 × 50 1768	88 × 11 3268	92 × 45 968

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VIFs Multiply Double Digits

Examples
 $24 × 39 = 936$
 $94 × 43 = 4042$

Round: 4 Game: 1

change rounds

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Masters of math

Students at 16 Bethlehem area schools are embracing Easton guru's educational innovation



First in Math inventor Bob Sun greets students Thursday at James Buchanan Elementary School in Bethlehem. Sun has turned to the Bethlehem Area School District to help test The Very Important Facts, a new practice system for the competitive, educational game.

Sara K. Satullo For The Express-Times

When Easton entrepreneur Bob Sun was 9, his family moved from China to West Philadelphia. He was dropped into school knowing no English. The plane ride across an ocean took away his first language, but it also showed him the world's universal language: math. Sun was teased relentlessly when he first began school after saying one of the only English phrases he'd learned, "Close the door," during roll call. But when those same kids saw how great Sun was at math, they came to him for help.



Students are awestruck during Sun's visit to present Most Valuable Player lanyards to two third-grade classes. Photos by Sue Beyer/For The Express-Times

"Math is what is known as a universal language,"

practice system — The Very Important Facts — and is monitoring the progress in 16 Bethlehem Area

“(Bob Sun)

Luxury condos a 'go,' says developer

Plan to convert former bowling alley r two rivers takes shape

Tony Rhodin For The Express-Times

This one takes imagination. Unlike Easton's other recent residential redevelopments, the Herierview isn't a shell waiting to be finished. When finished, the Pome Eastonian, Gov. Wolf and even done Simon Silk Mill projects better but not remarkably different. But Heritage Riverview is a different project. The project gets its current name from a building once dominated much of the structure in the 100 block of Street as well as the Forks which is within a glance. Perhaps the best sign Delaware Terrace to New version on the city's location, but a major update. SEE EASTON, A2



The Heritage Riverview planned for the 100 block of Street in Easton. Courtesy

NEW JERSEY

Experts sucking out of g

Voters still of June 6 p