

Communication PRinciples for Principals

NOVEMBER 2012

FOCUS ON MATHEMATICS



IDEA

The challenge for administrators is how to best bring teachers, parents, and students together and leverage each group's unique talents, expertise, strengths and potentials to move the mathematics bar forward and upward. Developing a shared commitment to the improvement of mathematics education and communicating about the important mathematical concepts relevant for the 21st Century are two ways to address the math challenges.

Goal: Building Awareness and Driving Action for your School's Math Program

Mathematics – a core subject in every school is at the top of every educator and administrator's priority list when it comes to curriculum. That is because now more than ever mathematical proficiency is required for success in college, careers and everyday life. In fact, research shows that having mathematical competence opens doors and opportunities to a productive future; whereas, lacking in mathematical competence reduces and in most cases closes doors and opportunities.

Nobody denies that all students deserve an opportunity to understand and learn mathematics that enables them to compute fluently and to solve problems creatively and resourcefully. Yet, recent national assessment trends over the past several years show that math scores have been flat – whether it's the SAT, NAEP, TerraNova, or state standards assessments. Likewise DoDEA has been experiencing relatively flat to slightly declining mathematics scores on the Scholastic Aptitude Test (SAT), the TerraNova Assessment and the National Assessment of Educational Progress (NAEP) assessments for the past 5-years.

For that reason, beginning School Year 2012-2013, DoDEA began ramping up its efforts to raise student proficiency in mathematics by increasing graduation requirements for mathematics. In addition, over the course of the next three years, DoDEA will be introducing four new high school mathematics courses designed to strengthen algebraic reasoning skills and problem-solving ability. These four new courses—Algebraic Modeling; Financial Literacy; Engineering Applications; and Advanced Functions, are designed to be robust and relevant to real world applications, concepts, skills, and procedures that form the foundation for understanding and learning mathematics. The ultimate goal is for students to see mathematics as an essential aspect of their everyday live and to think, "I can understand this, I can do this, this is important to know now, for my future, and for life".



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In setting forth a new direction for mathematics and 21st century teaching and learning, DoDEA is reviewing its mathematics program and developing a plan which includes adopting the Common Core State Standards for Mathematics. The new Common Core State Standards for Mathematics are designed to ensure that students graduating from high school are prepared to go to college or enter the workforce and provide a consistent, clear understanding of what students are expected to know and be able to do. However, it is important to note that the way we taught students in the past simply will not prepare them for today's demands of college and careers. Therefore, as required for adopting the common core mathematics standards, we will also develop a viable coherent and cohesive curriculum that includes research-based instructional design and strategies, and assessments that inform teaching and learning.

In addition, because today's mathematics classroom looks quite different from classrooms of the past, the new plan will correspondingly include instructional technology resources which will facilitate the creation of models and simulations demonstrating mathematical applications in everyday life.

It will take a while for the plan to result in sustained, measurable, and positive increases in mathematics performance. The challenge for administrators is how to best bring teachers, parents, and students together and leverage each group's unique talents, expertise, strengths and potentials to move the mathematics bar forward and upward. Developing a shared commitment to the improvement of mathematics education and communicating about the important mathematical concepts relevant for the 21st Century are two ways to address the math challenges.

The mathematics classroom today looks very different from the classrooms that parents experienced. The way we taught students in the past simply will not prepare them for the higher demands of college and careers today and in the future. More importantly, mathematics and numeracy are key in all jobs of the future. Therefore, it is important to provide parents with information that will help them understand the mathematics program and ways they can contribute to the success of their child's learning.

TIPS



Math Success begins at home and at school

A strong math connection between home and school is a solid approach that will help improve achievement. How can the principal help strengthen this connection through communication and dialogue?

Parent Involvement is important

A growing body of research supports the conclusion that parents' attitudes toward mathematics can impact their child's success in mathematics. Adults frequently make comments such as "I am not good at math" or "I don't like math." Parents are a child's first role model.

- » It is important for parents to realize that how they feel and talk about mathematics can influence their child's thinking and confidence in learning mathematics.
- » More importantly, parents need to realize that literacy in mathematics or being numerate is equally as important as reading literacy.

What should you tell them?

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- » Inform parents of the goals of the mathematics program, what their child will be learning and why these goals are important,
- » Most importantly, show them how it is being taught and why it is being taught this way. Offer hands-on experience so they can understand and appreciate the mathematics their child is learning.
- » Remember, it's important for parents to understand that what's important for students to be able to know and do in mathematics is dynamic and changing in response to the 21st century world. It's not the same as when parents were in school because the world is not the same!
- » And, above all, communicate to parents the expectation that all students can be successful in mathematics.



Why should you tell them?

The more informed parents are, the more they will understand what their students are learning and why. They will also be in a better position to reinforce and support classroom learning at home.

Use your school newsletter, send an e-mail, or use your school website to talk about what's going on in math at your school. Give them some resources, web sites, a math "question of the week," or YouTube videos to watch to raise math awareness and encourage action.

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TIPS



Ways to communicate with parents

- » Use your school newsletter, send an e-mail, or use your school website to talk about what's going in math at your school.
- » Give them some resources, web sites, a math “question of the week,” or You Tube videos to watch to raise math awareness and encourage action.
- » Get parents involved – the easiest way is to put the resources at their fingertips.
- » Have a special math assembly at school for parents – it doesn't have to be a “Math Night” with fun and games. Serious, honest, and open discussions and presentations are just as important and add some gravity to the topic.
- » Encourage parents to volunteer in the classrooms and help with a mathematics lesson.
- » Encourage professionals in your community to share how they use mathematics every day at work.
- » Invite the district ISS for mathematics to your school to talk with parents and teachers. These types of interactions promote awareness and understanding of the curriculum and its implementation.

In the coming months, you will be seeing a variety of products and ideas from DoDEA to help you reinforce your math communications program. Use them and let us know how they can be improved. We also welcome and appreciate your ideas for additional tools and strategies.

The goal is to have your school community become a “math-centric” community. Math opens up doors to success for students. Try to involve as many of your stakeholder groups as possible. Math is for everyone, and everyone should be for math

For more information for parents helping their child learn mathematics (with activities from pre-school to grade five), go to <http://www2.ed.gov/parents/academic/help/math/index.html>.

