Kingswood Elementary STEM Newsletter

Engineering Our Future

Science * Technology * Engineering * Math

Mar. 2014 Issue **Kingswood Elementary** **Cary, NC**

Welcome!

We are so excited to offer a STEM program at Kingswood Elementary. Kingwood is a NC STEM Learning Network School. Our teachers are trained to provide an interdisciplinary approach by integrating science, technology, engineering, and math in all Common Core State Standards through project-based learning. We have some exciting events planned this year. Students will enjoy a science fair, STEM Expo, science night, math night, student clubs, and STEM challenges. As always, we encourage families to incorporate STEM-related activities at home through games, books, field trips, and videos.

If you would like more information, please visit our STEM website at: http://kingswoodelemstem.weebly.com

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4th Quarter: All About Math

During each quarter, we will highlight one aspect of STEM. This quarter, we will focus on math. Mathematics is extremely important in the real world.

Doctors use math to calculate the exact amount of medication needed to make you feel better. Construction workers rely on math to build a strong foundation and a sturdy house. Chefs use math to create great meals. Athletes need math to excel in their sport.

Many mathematicians have made our lives easier. Imagine having to come up with math answers without a calculator. You can thank Blaise Pascal. In 1642, this French mathematician invented the mechanical calculator. Imagine having to put together a class presentation without technology. Alan Turing played an important role in the development of the modern computer. Students may browse the trophy display case highlighting mathematical leaders such as Archimedes of Syracuse, Pythagoras, Terry Tao, and Jaime Escalante. They can see posters around the school about jobs or accomplishments within the field of math.

The difficult thing for students is being able to connect math in the classroom to the real world. Take a look at their interests and show them how math plays a vital role. If your son loves seeing Lebron James sink a three pointer, you can show him how math helps you calculate how hard throw the ball to hit the back board. If she likes creating movies, you can show her how Pixar incorporates math to bring animation to life.

We hope that STEM-related lessons, activities, clubs, events, and challenges will spark an interest in science, technology, engineering, and math. Who knows? We may have a student who goes on to start a successful business, invent a new software program, teach a new generation, or protect your identity from hackers.

Upcoming STEM Events

April 10th: Science Fair (K - 2nd Grade; Pre-K class projects)
April 10th: Math/Technology Night and Science Fair Viewing from 6:30 - 7:30 p.m. in the cafeteria
June 5th: STEM Awards Ceremony

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STEM Challenges

Each quarter, we will issue students a STEM challenge. This is a fun assignment that they may voluntarily complete at home. A STEM challenge is a great way for students to read, discover, and explore more about science, technology, engineering, and math. Students will have eight weeks to complete the challenge. They may turn in their assignment to their homeroom teacher at any time before the deadline.
Students will be recognized at the end of each quarter for completing the challenge. Children who finish all four challenges will be honored at our STEM Awards Night on June 5th. Enjoy your STEM challenges!

4th Quarter STEM Challenge: Math

Challenge begins: March 12th Challenge ends: May 9th

Students will receive a flyer with detailed guidelines and expectations. Here is a condensed list of STEM challenges to complete.
Read: Read a newspaper to gather weather data. They can use the information to determine the average hi and low for the week. Younger students can see if there are more rainy, sunny or cloudy days. In the entertainment section, students can calculate the total money brought in by the top five movies at the box office. Younger students can count how many times an animated movie is shown at a theatre in one day.
Discover: Choose one fun activity. Some activities include calculating your weight on other planets, completing a bar graph with M&Ms, creating artwork with different shapes, or playing a math-related board game.
Explore: Go on a family field trip. Students will have a variety of options to choose from. Some ideas include: Finding geometric shapes at the NC Museum of Art, weighing fruit at the grocery store, or calculating statistics at a sporting event. See the flyer for more options.

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5 Everyday Math Activities at Home

You may hear the same questions. Why do we have to learn how to solve word problems or complete bar graphs? It is in those moments that we connect math in the classroom to the real world. Here are some ways to make this happen with fun activities.
1) **Kitchen:** There are many learning opportunities when it comes to cooking. You need to measure ingredients. You may have to cut fruit in half or a pizza in fourths. You may need multiplication or division to increase or decrease ingredients in a recipe. Your kindergartener can help you count how many cups of flour you pour into a bowl.
2) **Grocery Store:** There are fun things to do at the grocery store such as weighing fruit. Younger kids can identify shapes and colors. You can identify healthy foods. For older kids, they can practice estimating cost as well as creating and sticking to a budget.
3) **Road Trip:** Kids often get bored in the car. To help pass the time, there are several math activities. They can figure out the distance between cities on a map. They can use the map grid to find a mystery destination. Older kids can calculate the cost of gas. They can help stay within a budget for lunch and snacks. Younger kids can look for shapes and colors in road signs.
4) **Lemonade Stand:** With a parent's permission, your child can create a fun business to earn extra money or raise funds for charity. Kids need to measure ingredients. They can figure out a price to charge customers. They will need to learn to make change.
5) **Beat the Clock:** If you find completing chores is an uphill battle, let kids strengthen their ability to tell time and calculate how much time is left on the clock. You can have a Kids Olympics where they complete five tasks within a certain time frame. Whoever completes the list quicker and with accuracy earns a reward or prize. Have fun giving reminders such as "five minutes to go" or counting down the last 10 seconds.

Have a fun, family STEM adventure!