



St. Louis American
NEWSPAPER IN
EDUCATION

The St. Louis American's award winning NIE program provides newspapers and resources to more than 8,000 teachers and students each week throughout the school year, at no charge.

Questions or comments? Contact Cathy Sewell
csewell@stlamerican.com or 314-289-5422

STEM
science, technology, engineering, and math

CLASSROOM SPOTLIGHT

Mullanphy ILC Elementary School
2nd grade teacher
Angela Griffin shows students Hawa Salim, Zakaria Hussein, Jalen Valentine and Ahmed Ahmed how to use the newspaper's NIE page for STEM ideas.

Photo by Wiley Price / St. Louis American



Teachers, if you are using the St. Louis American's NIE program and would like to nominate your class for a Classroom Spotlight, please email: nie@stlamerican.com.

SCIENCE STARS

African American Biostatistician
Tanya Moore



Tanya Moore grew up in Berkeley, California, and had a rough childhood. Her father was an alcoholic and died of lung cancer. Her mother raised three daughters alone. The family had a history of drug and alcohol abuse, mental illness, and domestic violence. Moore says that many teachers were surprised by her abilities

and often discouraged her from taking challenging courses. She graduated from Berkeley High School in 1991.

Next, Moore went to Spelman College where she earned a bachelor's degree in mathematics in 1995. From there, she went to Johns Hopkins University where she earned a master's degree in mathematical science. While at Johns Hopkins, Moore stated that she was often judged unfairly due to her race. "People told me I would only pass qualifying exams because I was an African-American woman and the school wanted to make their quota. I'd walk into a room and people would tell me I was in the wrong classroom. Sometimes a professor would say, 'Wow, you did better than we expected.'" In 2002, she earned a Ph.D. in biostatistics from UC Berkeley.

Moore works for the City of Berkeley Public Health Department where she is in charge of the Chronic Disease Prevention Program. She focuses on reducing the rates of high-blood pressure, cardiovascular disease and diabetes in the African-American community. In 2010, she began the 2020 Vision Projects to close the achievement gap between white, black, and Latino students in Berkeley, California, by the year 2020. In 2008, she appeared in Oprah Winfrey's O magazine as one of 80 women who are considered trailblazers. As part of this honor, Moore attended a three-day conference called "Women Rule in New York."

Learning Standards: I can read about a person who has made contributions to the fields of science, technology, engineering, and math. I can make text-to-text and text-to-self connections.

SCIENCE CORNER

Infinite Possibilities



Infinite Possibilities is a math conference that is held to encourage women to pursue careers in the STEM fields. The conference was created by a trio of minority women with a doctorate degree and a career in math: Leona Harris, Tanya Moore, and Nagambal Shah. The first conference was held in April of 2005 at Spelman College in Atlanta, Georgia, and had over 150 attendees. The conference was funded by Toyota Motor Corporation, National Security Agency, National Science Foundation and the US Army.



less than 1% of the doctoral degrees in the mathematical sciences were awarded to African-American, Hispanic/Latina, and American Indian women. According to the Infinite Possibilities website, "Highlights of conference activities include: Professional development workshop series; Panel discussion on graduate studies in mathematics; Research talks given by professionals; Student poster sessions, Special activities for high school students; Roundtable discussions on experiences with mathematics."

To learn more, visit: <http://ipcmath.org/>.

Learning Standards: I can read nonfiction text for main idea and supporting details.

SCIENCE INVESTIGATION

In this experiment, you will see how to make a bone bend.

Materials Needed:

- A Large Jar with a Lid
- A Cooked Chicken Bone (save a drumstick after a family meal)
- Vinegar

Procedure:

- 1 Rinse off the chicken bone to remove any excess meat or grease. (Note how strong the chicken bone is, just like our bones. This is due to calcium.)

Bend a Bone



- 2 Place the bone in the jar and cover it with vinegar. Place the lid on the jar.
- 3 Observe the bone for 3 days. What changes do you notice?
- 4 After 3 days, remove the chicken from the jar and rinse it off. Are you able to bend it? How is this possible?

Learning Standards: I can complete an experiment, draw conclusions, and analyze results.

MATH CONNECTION

FAMILY MATH NIGHT (CLOSE CALL)

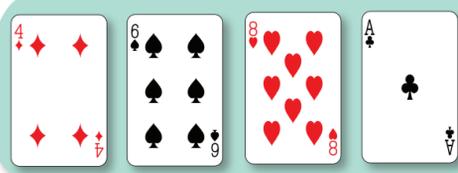
Try this math game at school, and then introduce it to your family at home. It's a great way to have fun together while you sharpen your math facts.

Materials Needed:

- Deck of Cards
- Paper and Pencil (optional: calculator to check answers)

How the game is played:

- 1 You can play as individuals or as teams.
- 2 Remove 10s and face cards from the deck. Shuffle the deck and deal each player six cards.
- 3 Each player/team selects four of their cards and creates two 2-digit numbers from them. The goal is to create two numbers that have a sum as close to 100 as possible, without going over. (For example, a player may choose to use



= 16 + 84 = 100

the cards 4, 6, 8, and 1, creating the problem $16 + 84 = 100$.)

- 4 After players/teams have made their selections, they place their cards face-up in front of them, arranging them so other players can see which two numbers they have created.

- 5 The player/team with the numbers closest to 100, without going over, wins a point. In the case of a tie, a point is awarded to each team.

- 6 Shuffle the cards before dealing another round.

- 7 Play continues for 10 rounds. The player with the most points after the last round wins the game.

Learning Standards: I can add, subtract, multiply, or divide to solve a problem.

DID YOU KNOW?

Computer Programmer • Cost Estimator • Financial Analyst • Civil Engineer • Biochemist

▶ According to the National Math and Science Initiative, there are approximately 2.5 job postings for each new bachelor's degree recipient in a STEM field, compared with 1.1 job postings for each new four-year graduate in a non-STEM field.

▶ It is estimated that there will be over one million STEM job openings by this year.

▶ According to the Bureau of Labor Statistics, the annual average wage for all the STEM occupations is \$79,640.

Facts About Stem Jobs:

MAP CORNER

Enjoy these activities that help you get to know your St. Louis American newspaper.

Activities —

Analyzing the Classifieds:

After you have analyzed how the classified section is organized, see how quickly you can find each of these items: a house with a yard, a job that requires no experience, an invitation to bid.

Write about a Scientist: When you think of scientists, do you think of men and women? Do you envision people of different races?

Technological advances have been made by a diverse group of people. Use the newspaper to study how a news article is written. Next, write a news article about a scientist you have studied who has made contributions with his or her work in the STEM fields.

Learning Standards: I can use the newspaper to locate information. I can write for a specific purpose and audience.

Eboni C. January, MD



This special Newspaper In Education initiative is made possible, and delivered to classrooms, through The St. Louis American Foundation and its NIE Corporate Partners:

