



**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.

STEM
science, technology, engineering, and math

Questions or comments? Contact Cathy Sewell
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CLASSROOM SPOTLIGHT

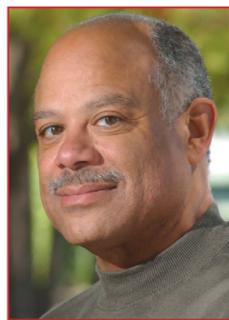
Lyon Academy at Blow 6th grade teacher Keiler Swartz shows students Juan Hamm, Michael Hye and Aanarian Kirksey how to use the newspaper's NIE page to discover useful STEM lessons. *Photo by Wiley Price/ St. Louis American.*



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 INVENTOR:
Mark Dean**



Mark Dean was born in Jefferson City, Tennessee, on March 2, 1957. At a young age, he showed a strong interest in inventing. He built a tractor from scratch with the help of his father. Dean was a straight A student in high school, as well as a skilled athlete. In 1979, he graduated top of his class at the University of Tennessee with a Bachelor of Science

degree in Electrical Engineering. Dean accepted a job at IBM as an engineer while he continued his education, earning a master's degree in Electrical Engineering, in 1982, from Florida Atlantic University.

Dean found success at IBM, serving as part of the team that developed the IBM PC, the first home/office computer. He also developed a component that allowed many devices, such as printers, to be connected to a PC. Dean owns 3 of the 9 patents that all PCs use. He helped to develop the first color monitor and the first gigahertz chip—which can do a billion calculations a second. Dean personally holds more than 20 patents. Additionally, he has more than 40 patents pending approval.

Even though he was successful, Dean still knew there was a lot to learn. So he went back to school to earn his Ph.D. in Electrical Engineering from Stanford University, in 1992. Dr. Dean was named an IBM fellow, the highest honor awarded by the company. He was the first African American to earn this title. He was inducted into the National Inventors Hall of Fame. He was also honored with the Black Engineer of the Year President's Award in 1997, and became a member of the National Academy of Engineers.

Dean is quoted as saying, "A lot of kids growing up today aren't told that you can be whatever you want to be. There may be obstacles, but there are no limits." He faced racism in school and the workplace. He faced the obstacle of many hours of hard work and research. In the end, Dean achieved his dream and used his intelligence to create devices that would enrich the lives of many people at home and at work.

Visit: the National Society of Black Engineers here — <http://www.nsbe.org/Home.aspx>.

Discuss: Mark Dean says children should be encouraged and told they can be whatever they want to be. What would you like to be? What obstacles do you think you will face? How can you work to overcome these obstacles?

Learning Standards: I can read a biography about a person who has made contributions in the fields of science, technology, and mathematics.

SCIENCE CORNER

Calling All Inventors!

Many inventors showed a passion for learning and exploring at an early age. Biographies often include stories of inventors taking apart appliances in the house and rebuilding them. Have you ever taken something apart to see how it works? Have you ever built an item from scratch? Do you enjoy looking for creative solutions to a problem? If so, you may be an inventor.



CJ Senter (middle of photo), age 9, invented "The Workout Kid" exercise videos. Check out his website: <https://workoutkid.com>.

think of a way to reuse items around the house? For example, you can use many old items around the house as a planter. Look online for some ideas to get your creativity started. Can you build a car from recycled items? Get a group of friends together and see who can build the fastest car. Who can build the car that runs the farthest? Finally, start a list of problems you would like to solve. For example, microwaves were developed to make cooking time shorter. What improvements would you like to make at home, school, or in your community?

If you are interested in becoming an inventor, there are a few things you can do at home and at school to develop this skill. First, think of new uses for a common object. Look at a paper clip. Can you think of any other uses for it besides holding paper together? See how many items you can list. Compare lists with a friend and classmate. Can you

To Learn About the Young Inventors Program, Visit: <http://www.aas-world.org/YIP/about-YIP.html>.

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

SCIENCE INVESTIGATION

EXPLORING INTERNET PRIVACY

Background Information:

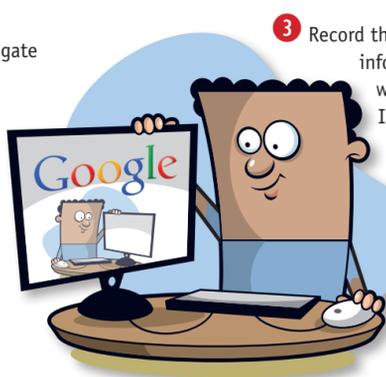
In this experiment, you will investigate internet privacy.

Materials Needed:

- Computer • Internet Access

Procedure:

- Go to google.com. Search for your name. Use your full name and your nickname.
- What links do you find? Do your results also give you information about others with the same name? If so, in what link



- Record the origin of the information—school websites, newspapers, Instagram, etc.
- Can you find photos of yourself? If so, can you find where the photos originated?
- Are you able to make the information and photos of yourself private so that others cannot see them when they search?

Analyze: Based on your findings, what can you conclude about privacy and the internet? Is your personal information safe?

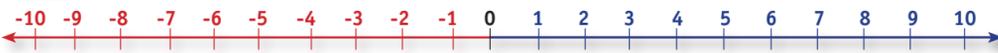
Learning Standards: I can follow a procedure to complete an experiment. I can analyze the results.



position is your information (example: fourth link given)?

MATH CONNECTION

POSITIVE & NEGATIVE INTEGERS



Numbers can be positive or negative.

If a number does not have a positive or negative sign in front of it, it is positive. For example 4 is +4. When you combine positive and negative numbers, there are two important rules to follow:

Two like signs become a positive sign

$4 + (+2) = 4 + 2 = 6$ $7 - (-3) = 7 + 3 = 10$

Two unlike signs become a negative sign

$6 + (-2) = 6 - 2 = 4$ $9 - (+2) = 9 - 2 = 7$



Apply those rules to the following problems.

- $7 + (-6) =$ _____
- $4 - (-3) =$ _____
- $-9 + 2 =$ _____
- $-2 + (-8) =$ _____
- $3 - (-6) =$ _____

Visit This Site for Fun Math Games: <http://www.coolmath4kids.com/>.

Learning Standards: I can add and subtract positive and negative integers.



DID YOU KNOW?

Google uses an estimated 15 billion kWh of electricity per year and generates a lot of their own power with their solar panels.

A billionaire is a twitterer with a million or more followers.



24 hours of video viewing is uploaded every minute on YouTube. On average, US online viewers view 100 videos per month each.



160 billion emails are sent daily, 97% of which are spam. Spammers get 1 response to every 12 million emails they send.

MAP CORNER

Use the newspaper to complete the following activities.

Activity One — Setting:

Setting is the time and place that a story occurs. Read three news articles and state the setting.

Activity Two — Place Value:

Find five numbers within the newspaper. Underline one of the digits in each number and identify the place value — ones, tens, hundreds, etc.



Learning Standards:

I can use the newspaper to locate information. I can identify setting and place value.

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

