



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

Moline Acres 5th grade teacher Ms. CaSandra Johnson

shows students Cader Williams, Shyanne Murphy, Krista Coleman and Kristan Carter how to use the newspaper's NIE page to find 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 Electrical Engineer & Entrepreneur

Marc Hannah



Marc Hannah was born in Chicago, Illinois, on October 13, 1956. He always enjoyed math and science in school. In high school, he sparked an interest in computer technology. He attended the Illinois Institute of Technology with a scholarship where he earned his bachelor's degree in electrical engineering. Hannah then went to Stanford University to earn his master's and doctorate degrees in Electrical

Photo by Matthew Hickey
courtesy of The HistoryMakers

Engineering.

In 1982, Hannah and six other people founded Silicon Graphics Incorporated (SGI). SGI computers are used to design airplanes and automobiles, as well as engineering, research, and military applications. However, a very popular use is creating special effects in television and movies. Hannah helped create special effects in *Terminator 2*, *Jurassic Park*, *Aladdin*, *Forrest Gump*, *The Hunt for Red October*, *Beauty and the Beast*, and *Fields of Dreams*. SGI computer graphics are also used in music videos, such as Michael Jackson's video "Remember the Time."

Hannah is currently chief technology officer for SongPro, which creates multimedia plug-ins for hand held video games and portable music devices. He is a director and co-founder of Strategic Urban Development Alliance (SUDA), which is an engineering, construction, real estate, and finance firm. Hannah also serves on the board of directors for Magic Edge, which creates technology used in amusement parks.

In addition to his 15 patents, Hannah was given many awards, including the Kilby Young Innovator Award, Black Engineer of the Year Technical Contribution Award, IIT Alumni Association Professional Achievement Award, NTA Professional Achievement Award, San Francisco Black Chamber of Commerce Front Runner Award, M.E.N.T.O.R. Network Technology Award, and M.O.B.E Influencers & Innovators Award. Hannah has also been featured in *Ebony* magazine, *Electronics* magazine, *Forbes*, and *PC Magazine*.

Hannah is quoted as saying, "My job is to look ahead two to three years and see what's coming. To see what consumers want, what they will want, and then to figure out how we can deliver that—at what price."

Learning Standards: I can read biographical information about a person who has made a contribution in the fields of science, technology, engineering, and math.

SCIENCE CORNER

Are 3D effects safe for your eyes?

The American Optometric Association (eye doctors) researched this topic and here is what they discovered:

3D movies, TV shows, and games are safe for children age 3 and above.

Reusable 3D glasses can contain harmful bacteria. Use anti-bacterial wipes as a precaution.

Time spent playing handheld games that are held close to the face should be limited, with frequent breaks, to rest the eyes.

Although there was concern that 3D movies can trigger a

seizure, the AOA has discovered that there is only a risk for seizure if the person has photosensitive epilepsy or is taking certain medications.



3D glasses work by viewing a different image in each eye. Some people are unable to see 3D effects if they have a "stereo deficiency." So, thanks to 3D technology, some people have been able to detect vision issues and get them corrected.

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

SCIENCE INVESTIGATION

CREATE AN OPTICAL ILLUSION!

Background Information:

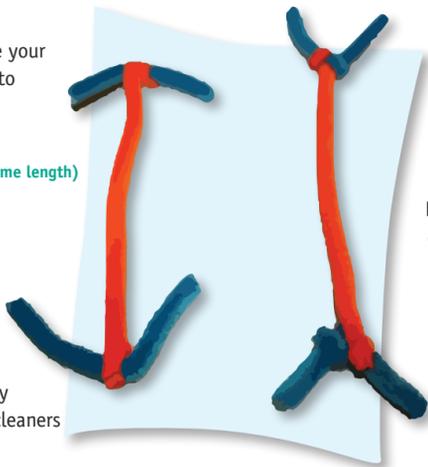
In this experiment, you will surprise your eyes by creating an optical illusion to see which arrow is longer.

Materials Needed:

- Pipe Cleaners (2 different colors, same length)
- Scissors

Process:

- 1 You will need two pipe cleaners that are the same length and color. These pipe cleaners will be the body of the arrows.
- 2 Create the ends of your arrow by cutting in half two other pipe cleaners that are a different color.
- 3 Wrap the end of one long pipe cleaner around the middle of one short pipe cleaner. Then bend the short one in half so it looks like an arrow. Do the same thing with the other end. The ends will point outward.



- 4 Then wrap the end of the other long pipe cleaner around a short pipe cleaner, but this time, turn the arrows inward.
- 5 Move your pipe cleaners apart... Now you have an optical illusion! Even though the two long pipe cleaners are the same length, one of them should look shorter than the other.

Check out these optical illusions online: <http://www.kidsmathgamesonline.com/pictures/illusions.html>.

Learning Standards: I can follow sequential directions to complete an experiment. I can analyze results and draw conclusions.

MATH CONNECTION

Answer these questions about movies.

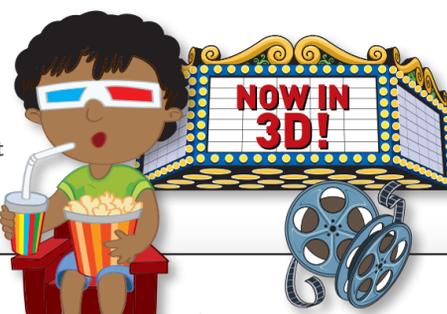
- 1 The cost of tickets for a play is \$3.00 for adults and \$2.00 for children. 350 tickets were sold and \$950 was collected. How many tickets of each type were sold? _____
- 2 You are having a movie marathon. Each movie lasts an average of 110 minutes. You have rented 3 movies. How long will the movie marathon last? _____

MOVIE MATH!

- 3 A movie theater sells tickets for \$9.00 each. Senior citizens receive a discount of \$3.00. One evening the theater sold 636 tickets and took in \$4974 in revenue. How many tickets were sold to senior citizens? How many were sold to "moviegoers" who were not senior citizens? _____
- 4 Aaron's family is going to see a movie at 5:50 p.m. It is 11:20 a.m. right now. How long do they have to wait to see the movie? _____ hours _____ minutes

- 5 A movie that began at 6:15 p.m. ends at 8:05 p.m. How long did it last? _____ hours _____ minutes

Learning Standards: I can add, subtract, multiply, and divide to solve a problem. I can think critically. I can make text to world connections.



DID YOU KNOW?

- ▶ The first 3D film for a paying audience was at Astor Theater, New York, on June 10, 1915.
- ▶ Columbia Pictures was the first big studio to make the 3D movie *Man in the Dark* (1953).
- ▶ The 3D movie with the biggest profit in its opening weekend was *Alice in Wonderland* (2010) which grossed \$116.1 million in the US on its first 3 days of showing. The most expensive 3D movie to create was *A Christmas Carol*, which cost over \$200 million to produce.
- ▶ In the year 2009, a total of ten 3D films were made, the most number of 3D movies to be released in a single year.

MAP CORNER

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

Activity One

Technology in our Community:

New technology continuously changes the way we do things. Use the newspaper to locate a picture of an invention that has affected or changed your life in some way. Write about how the invention has changed your life.

Activity Two — Mystery Story: Each student will cut out several pictures from the newspaper without reading the captions. Place the pictures in a bag, and without looking, pick your mystery picture from the bag. That's your stimulus for writing.

Create a graphic organizer for the 5Ws (who, what, where, when, why) and continue the writing process.

Learning Standards: I can locate information in a newspaper. I can write for a specific purpose and audience. I can make text to self and text to world connections.

Who	What	Where	When	Why

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

