



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



CLASSROOM SPOTLIGHT

Premier Charter School 7th grade teacher Alexa Franke

shows students Kaytlynn Phanthavongsa, Braylin Edmond, Bella Wisniewski and Suanu Bangura how to use the newspaper's NIE page for STEM ideas.

Photo by Wiley Price / St. Louis American

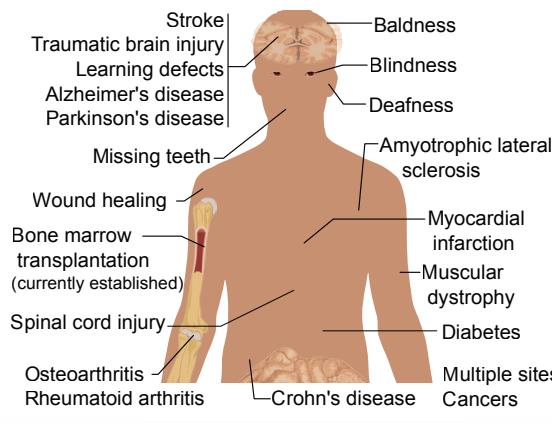
Teachers, if you are using the St. Louis American's NIE program and would like to nominate your class for a Classroom Spotlight, please email: nie@stlamerican.com.



SCIENCE CORNER

Stem Cells

Stem cells are cells that have the ability to self-renew and change into mature cells. There are two main types: adult cells which generate replacement bone and muscle cells that are lost through injury or normal wear, and embryonic cells that are starter cells that can change and become other types of cells.



Researchers grow stem cells in labs and alter them to be specific types of cells, such as heart cells. Stem cell transplants, also known as bone marrow transplants, replace cells damaged by chemotherapy or cancer. Stem cell research has helped scientists make advances to treat Parkinson's disease, spinal cord injuries, Alzheimer's disease, strokes, arthritis, diabetes, and heart disease.

For more information, visit: <http://science.howstuffworks.com/life/cellular-microscopic/stem-cell.htm>.

Learning Standards: I can read nonfiction text for main idea and supporting details. I can make text-to-text connections.

SCIENCE INVESTIGATION

In this experiment, you will get to witness your very own DNA.

Materials Needed:

- 20 oz. Bottled water
- 3 Clear Plastic Cups or Glasses
- Clear Liquid Dish Soap
- 1 Tbsp Table Salt
- 100 ML Isopropyl Alcohol
- Blue Food Coloring

Procedure:

- ① Mix some bottled water with the salt in one of the cups. Stir until salt is dissolved.
- ② Transfer 3 Tbsp of the salt water into a separate cup.
- ③ Gargle the salt water for 1 minute without swallowing it.
- ④ Spit the water back into the cup.



See your DNA

- ⑤ Add one drop of dish liquid to the salt water. Stir gently. Try not to create any bubbles.
- ⑥ In a separate cup, mix the alcohol and 3 drops food coloring.
- ⑦ Gently pour the alcohol and food coloring mixture into the salt water cup. Tilt the salt water cup as you pour, so the alcohol mixture forms a layer on top of the salt water.
- ⑧ Wait for 2.5 minutes. You should see white clumps and strings forming. The white clumps and strings are your DNA.

Reflect: When you gargle and spit in a cup, some of your cheek cells entered the cup. The dish liquid breaks down the cheek membranes, allowing the DNA to enter the water. Because DNA is not soluble in alcohol, it will form a solid where the salt water layers meet.

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

MATH CONNECTION

MATH GAMES FOR FUN

Math games are a great way to spend time with your friends and family while sharpening your skills. Try these games and see what you think.

HOW MANY NUMBERS CAN BE MADE:

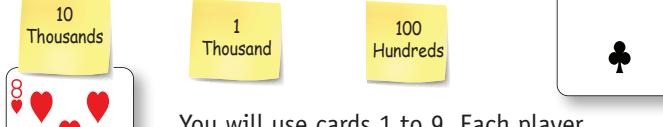
Materials Needed: A Deck of Cards • Paper and Pencils

Give each player a piece of paper and a pencil. Using the cards from 1 to 9, deal four cards out with the numbers showing. Using all four cards and a choice of any combination of addition, subtraction, multiplication, and division, have each player see how many different numbers a person can get in 5 minutes. Players get one point for each answer. For example, suppose the cards drawn are 4, 8, 9, and 2. What numbers can be made? Which player came up with the most combinations? Which player had the highest number? Which player had the lowest number?



MAKE THE MOST OF IT:

Materials Needed: A Deck of Cards



You will use cards 1 to 9. Each player alternates drawing one card at a time, trying to create the largest 5-digit number possible. As the cards are drawn, each player puts the cards down in their "place" (ten thousands, thousands, hundreds, tens, and ones) with the numbers showing. Once placed, a card cannot be moved. The player with the largest 5-digit number wins.

For example, if a 2 was drawn first, the player might place it in the ones' place, but if the number had been an 8, it might have been put in the ten thousands' place. For an added challenge, practice rounding your number to the nearest ten thousands' place, to the nearest thousand, etc.

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

DID YOU KNOW?

Since 1968, bone marrow transplants have been using stem cells to treat leukemia.



In 1976, stem cells were discovered in human cord blood.

In December 2012, the millionth stem cell transplant occurred.

In 1997, scientists cloned a lamb from stem cells. Her name was Dolly.



Gang-banger transformed himself into a minister who first held services in his barbershop



Google play

Google play