



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
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STEM
science, technology, engineering, and math

CLASSROOM SPOTLIGHT

Katie Wright
Elementary
School teacher
Michael Jacobs

shows students Re' Lynn Sharp, Wesley Anthony, Andrea Hodges and Soham Soni how to use the newspaper's education 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 Chemist
Jeannette Brown



Jeannette Brown was born in 1934 in New York. When she was just 6 years old, her family doctor encouraged her love of science, specifically chemistry. Brown was a dedicated student and graduated in 1952 from New Dorp High School in Staten Island. After graduating high school, she attended Hunter College to pursue a chemistry degree. Brown was one of only two

African-American women in the class. In 1956, she earned her bachelor's degree in chemistry. Next, Brown went to the University of Minnesota and became the first African-American woman to earn a master's degree in organic chemistry.

Brown then went to work for CIBA Pharmaceutical Company as a research chemist. She developed drugs for diseases, such as tuberculosis and coccidiosis (coccidiosis affects chickens). In 1969, she went to work for Merck & Co. Research to continue research of new drugs to make sure they are safe and effective. In 1986, she became chairperson of the Project SEED Committee for the American Chemical Society. Seven years later, she taught chemistry at the New Jersey Institute of Technology. She also served as regional director on a committee to improve science education for local students.

In 2008, she shared the biography of seven chemists to the African American National Biography. Three years later, she published the novel "African American Women Chemists". Hunter College and the University of Minnesota both have recognized Brown as an outstanding alumni. She has received other awards, including an Association of Women in Science fellow award in 2007. She was also recognized as an American Chemical Society fellow and a Chemical Heritage Foundation Ulyot Scholar. Brown has been active in professional organizations, such as the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) and the American Chemical Society (ACS).

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

MAP CORNER

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

Good Citizen: What are the qualities of a good citizen? Use the newspaper to find examples of stories of people who display good citizenship. Share your examples with your classmates.

Target Audience: Writers must appeal to their target audience. In this activity, your classmates will be your target audience. Survey your classmates to discover their favorite sport.



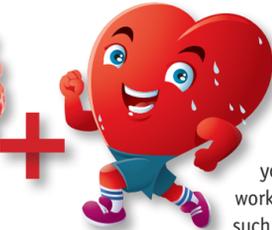
What is the most popular sport? Next, create a newspaper advertisement for a product that relates to that sport.

Learning Standards: I can use the newspaper to locate information. I can write for a specific purpose and audience. I can find evidence to support my claim.

SCIENCE CORNER

Preventing Disease

According to the American Heart Association, you can help prevent disease by following a healthy eating plan and adding more activity to your lifestyle. A healthy eating plan consists of lean proteins. Choosing fish as a source of protein also gives you omega 3 fatty acids to build brain cells. Consider meatless meals where your protein source comes from beans or other foods. Choose whole grains that contain a lot of fiber to help your digestive system and reduce cholesterol. Eat a lot of fresh fruits and vegetables, and lower-fat dairy products. Add nuts and seeds to your diet to get more nutrients. Try to avoid sugary or fried foods.



Kids should get 60 minutes of activity a day. Choose activities you enjoy—playing sports, jumping rope, walking around the neighborhood. At least twice a week, you should choose an activity that works on strengthening your muscles—such as push-ups, sit-ups, etc. Get your friends and family involved, choose some fun music, and you will be surprised how much you enjoy physical activity.

For more information, visit:

<https://www.heart.org/HEARTORG/> or <http://kidshealth.org/en/teens/diseases-conditions/>.

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

SCIENCE INVESTIGATION

EXPAND A BALLOON

In this experiment, you will observe the chemical reactions of yeast.

Materials Needed:

- A Packet of Dried Yeast • 16-20 oz. Clear Water Bottle (empty) • 1 Teaspoon Sugar • Warm Water • Small Balloon

Procedure:

- 1 Add 1 inch of warm water in the water bottle.
- 2 Add the entire yeast packet to the water and gently swirl the bottle to mix.
- 3 Add the sugar and gently swirl to combine.
- 4 Stretch out the balloon by blowing it up a few times and letting it deflate.
- 5 Place the neck of the balloon over the neck of the water bottle.
- 6 Place the bottle in a warm place for 20-30 minutes.



1 Watch the balloon inflate.

How does it work? Yeast is a living microorganism. As it "eats" the sugar, it releases carbon dioxide, which is a gas. This gas causes the bottle (and the balloon) to expand.

Form a hypothesis:

1. Does room temperature affect how much gas is created by the yeast?
2. Does the size of the container affect how much gas is created by the yeast?
3. Does yeast respond the same to syrup and honey as it does to sugar?

Repeat the experiment and test your hypothesis as you change these variables.

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

MATH CONNECTION

THIS CALLS FOR MATH!

1 Suzanne runs $3\frac{1}{2}$ miles every Monday, Wednesday, and Friday. How many miles will she run in a month that has 4 Mondays, 4 Wednesdays, and 5 Fridays? _____

2 If you have 4 members in your family, and each family member drinks 6 ounces of juice each morning for breakfast, how long will

a 1 gallon jug of orange juice last? (Remember: One gallon = 4 quarts, and 1 quart = 32 ounces.) _____

3 You are trying a new recipe for muffins. It calls for $2\frac{1}{3}$ cups of whole wheat flour. The only measuring cup you can find holds $\frac{1}{3}$ cup. How many times will you need to fill the measuring cup with the flour? _____

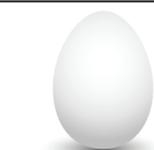
4 Anthony bought 6 boxes of grapefruit for \$9/box. If he has to pay 8% sales tax, what was the total he had to pay? _____

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



DID YOU KNOW?

Check out these fun chemistry facts.



Did you know that a fresh egg will sink in fresh water? A stale egg will float.

About 78% of the average human brain consists of water. This is one of the many reasons it is important to drink plenty of water.

Water expands as it freezes. Therefore, an ice-cube takes up more space than the water that is used to create it.



We Know Sports Equipment

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

