

# Classroom Spice

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## She Sells Seashells by the Seashore

The person who supposedly inspired this children's tongue-twister was Mary Anning. She was born into a poor family in the U.K. in 1799, one of ten children. Mary had a tragic childhood and only she and her brother Joseph lived to adulthood. (Note that in the 19<sup>th</sup> century in the U.K. almost half of children died before the age of five.) Mary almost died at the age of 15 months when a neighbor was holding her while standing under a tree chatting with two other women when the tree was struck by lightning killing all three women, severely injuring baby Mary. Coming from a poor family Mary had an extremely limited education, learning to read and write predominantly attending Sunday school, and then teaching herself geology and anatomy.

Mary's father supplemented the family income by hunting and selling fossils (called "curiosities" back then) and was assisted by his children, Mary and Joseph. When Mary was only 11 years old her father died. To help the family Mary continued the fossil business while Joseph apprenticed himself to an upholsterer.

When she was twelve, she and her brother found an unusual fossilized skull. It took Mary months, but she

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## Things You Should Know about English Language Learners

English Language Learners, ELLs, in the U.S. make up one of the fastest growing student populations, close to five million ELLs. In 34 of the 50 states ELLs make up 6% to over 20% of students. In ten states they make up between 3% and just under 6%, and in six states they make up less than 3 percent. This explains how 64% of U.S. teachers have at least one ELL in their class. By law, all public schools must offer these students an appropriate level of education, but unfortunately "appropriate" is not the same in all schools.

Is learning a second language difficult? As long as a student does not have a diagnosed language disorder or other cognitive issue, all students have the same natural ability to acquire language skills. But learning a second language will depend in part on the similarities of the languages. The similarities or differences in alphabet, sentence structure, syntax, or pronunciation; or if

reading is done left to right or right to left, top to bottom or bottom to top can make learning another language easier or more difficult.

Learning a second language has been shown to pro-



mote all areas of cognitive learning. In particular a bilingual brain helps in developing functional skills such as thinking under stress, switching attention, and working memory.

Many assume that all ELLs are immigrants, and many assume they are undocumented immigrants. But approximately 72% of ELLs are U.S. citizens. Many believe that Spanish is the most common language ELLs speak. While it is the number one home language spoken, it is not the only home language

for students. Spanish is the #1 language spoken in 45 states, but in Maine it is Somali, in Vermont it is Nepali, and in Montana it is German. Arabic is the second most common home language, followed by Chinese and Vietnamese. Note there are actually almost 400 different languages that are spoken at home by English Language students.

What impact do ELLs have on teachers in the classroom? It means teachers need to model their expected student actions, what is expected through actions, thinking aloud their problem solving process, and showing teacher and student work samples. It means being aware of their rate of speech (slow down as necessary) and wait time (more is better). Increase non-linguistic cues (visuals, sketches, gestures...). Give written instructions along with clear verbal instructions. Try and check student understanding, not by asking are there any

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## What do you know about the Underground Railroad?

(Identify the following as true or false. Answer all ten before checking the answers in the box below.)

- \_\_\_\_\_ 1. As slaves headed north to freedom only a small minority of people in the North supported the Underground Railroad.
- \_\_\_\_\_ 2. The term Underground Railroad was familiar to most slaves
- \_\_\_\_\_ 3. Most of the helpers/workers on the Underground Railroad were white abolitionists.
- \_\_\_\_\_ 4. Only a small percentage of the total population of slaves successfully escaped on the Underground Railroad.
- \_\_\_\_\_ 5. Quakers overall were extremely active in assisting on the Underground Railroad.
- \_\_\_\_\_ 6. Slaves made quilts with codes sewn into them to help others escape and find safe routes.
- \_\_\_\_\_ 7. A lantern in a window was a common sign used to designate a safe house for slaves.
- \_\_\_\_\_ 8. Slaves sang a number of spirituals referencing escaping.
- \_\_\_\_\_ 9. Most slaves who escaped were not from the deep South.
- \_\_\_\_\_ 10. While conductors like Harriet Tubman did go to plantations to help slaves escape, most slaves planned and acted on their own.

10. T

9. T It was too difficult, and too far, to successfully escape from the deep South, so most successful escape had embedded code to clearly give slaves information to escape.

8. T While a number of slave spirituals can be interpreted to reference the Underground Railroad: such as The North Star; or "Sweet Chariot" crossing over Jordan implies crossing the Mississippi none of the songs Gospel Train's A Comin'; "Following the Drinking Gourd" references the Big Dipper and thus the

7. F While it is true that John Rankin a famous stationmaster did use a lantern at his home to indicate when it was safe to cross the Ohio River, it was not commonly used elsewhere.

6. F While quilts were used at times as signals for safe houses, and after the fact, some quilts were made with a pattern which could be interpreted as descriptive of some of the hazards of the trip, interviews done in 1930 with former slaves revealed no reference to coded quilts.

5. F While there were Quakers helping on the U.R, especially assisting Levi Coffin, many Quakers were opposed to breaking the law to help escaping slaves and many opposed to slavery did not believe that was the appropriate solution to the slave problem, and some Quakers even owned slaves.

4. T While it is estimated that maybe as many as 100,000 slaves escaped on the Underground Railroad there were nearly 4 million slaves at the time.

3. F Most who helped along the way were free blacks or escaped slaves. Of whites who helped, not all were abolitionists.

2. F The term was not coined until 1840, and it was mainly a Northern term.

1. T In fact many Northerners did not welcome escaped slaves.

(Anning—cont'd from page 1)

carefully excavated the 5.2 meters (just over 17 feet) skeleton. What Mary found, unidentified at the time, was an *Ichthyosaurus*. Mary earned 23 pounds for the skeleton which was later auctioned off for much more. At twenty-two, she was the first person to unearth the complete skeleton of a *plesiosaur*.

Being a woman and from the lower class she continuously fought to earn respect from the male scientific community. Her fossil finds were often discussed in lectures by males, but carefully omitted her name. The Geological Society of London refused to admit Mary as a member because she was a woman. Rich men often bought then donated Mary's fossils to museums, but only the man's name was credited.

At twenty-nine Mary found the first remains of a *Dimorphodon*, one of the largest-ever flying animal. She also pioneered the study of fossilized dinosaur poo, coprolites.

She died at the age of 47. After her death her friend, the president of the Geological Society of London, read her eulogy to the society highlighting Mary's accomplishments. Later she was posthumously made an honorary member of the society. Science writer Stephen Jay Gould is said to have called Mary "probably the most important unsung (or inadequately sung) collecting force in the history of paleontology."

The area where Mary did her fossil hunting is now referred to as 'Jurassic Coast' and is one of the richest fossil-hunting areas in the U.K. It is recognized as a UNESCO World Heritage Site.

More information can be found in books such as *Fossil Hunter: How Mary Anning Changed the Science of Prehistoric Life*; *Stone Girl Bone Girl: The Story of Mary Anning*; and *The Fossil Hunter: Dinosaurs, Evolution, and the Woman Whose Discoveries Changed the World*.

## The Literature Connection

*Sewing Stories: Harriet Powers' Journey from Slave to Artist*, by Barbara Herkert and illustrated by V. Brantley-Newton, ISBN is 978-0-385-75462-0 is a book for elementary students. It is based on a true story. The book follows Harriet's life from birth in a world of slavery, through marriage, the Civil War, and Reconstruction. One of her jobs as a slave growing up was to make textiles, threads, and to sew. Her favorite activity was telling stories through her quilts. One of her quilts today is at the Smithsonian's National Museum of American History.



*The Biggest (and Best) Flag That Ever Flew* by Rebecca C. Jones and illustrated by Charles Geer, ISBN 978-0-87033-440-5, is another elementary level book based on a true story. Most students are exposed to Betsey Ross sewing our flag. But there was another pair of women who sewed a flag important in our history. While the book centers on Caroline Pickersgill and her mother (Mary), they did not do it alone. They had the assistance of at least two other women family members and two indentured black servants. During the War

of 1812 Pickersgill was commissioned to make the biggest flag in the world to fly over Baltimore's Fort McHenry to show that Baltimore was safe. When the flag was finished it was 30 feet wide, 42 feet long, and weighted 200 pounds, and when hoisted could be seen over three miles away. It was flying when Fort McHenry was attacked. Francis Scott Key saw this and was inspired and wrote a poem which became our national anthem. Today the flag, somewhat tattered, is the biggest exhibit in the Smithsonian's National Museum of American History.

Middle school students and older, can benefit from reading Juan Felipe Herrera's *Portraits of Hispanic American Heroes*, ISBN 978-0-8037-3809-6. They do not need to be Hispanic to enjoy it. The heroes are from a wide range of fields—sports, music, civil rights, television, education, law, science, military, social work, space—so any student should be able to find something of interest. Each hero has a three page section highlighting their life and accomplishments. Some are well-known and others will be new to most readers. It is a great read.

## The Connection between Feathers and Potatoes

It was 1847, a terrible year for the Irish who were living through the worst year of the ongoing potato famine in Ireland. Across the world the Choctaw were working to reestablish their society and their government after having endured the 500 mile "Trail of Tears," the forced winter migration from the Mississippi River Valley area (mostly today's Mississippi, Louisiana, and Alabama) to Indian Territory (present day Oklahoma), years earlier. Hearing of the plight of the Irish the Choctaw, even in their own poverty, managed to raise \$170 (equivalent to over \$6,000 today) to help provide food to the starving Irish.

Years later, the Irish realized the sacrifice and selflessness the Choctaw exhibited. In 2015 the Irish commis-

sioned artist Alex Pentek to create the monument "Kindred Spirits," which the Irish dedicated to the Choctaw in recognition of their kindness. The monument features nine twenty foot high steel feathers which stand upright forming the shape of an empty bowl. During Covid the Irish, remembering the help the Choctaw had given them, contributed \$3 million dollars to assist the Navajo Nation. The Choctaw and Irish continue to work together and provide assistance for people around the world who suffer from famine.



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**In This Issue...**

ELLs; Mary Anning; Underground Railroad; Potatoes & Feathers; Lit. Connection; Pinprick

**A Pinprick Away from Death**

When one thinks of space travel most do not think about who made the spacesuit, but the astronauts who first wore them do. Making the suits was difficult, from finding the best materials to use which would be flexible and not bulky, the right people to sew them, and the right sewing machines. The seamstresses worked for Playtex with experience working on bras and girdles, not spacesuits. They mastered working on 21 layers of ultra thin fabric to a precise 1/64th of an inch. Each seamstress who was working on a suit knew the astronaut it was made for and that it was their job to keep him safe. A mistake, even a pinprick could cause the astronaut to overinflate, burn up, or worse. None of the suits ever failed.

*(ELLs—Cont'd from page 1)*  
questions but have interactive monitoring of the class like “Thumbs up if you understand, thumbs down if it is not clear, or sideways if you are not sure.” Or you can have students use a Post-it note they place on their desk to show they have a question.

A teacher should learn to pronounce their student’s name as it is pronounced in their home language and not anglicizing it or changing it arbitrarily. Do **not** ask a student “Does that sound right?” To an ELL it probably does sound right based on the syntax and word structure with which they are familiar. A teacher should encourage and support ELLs continuing to read and learn in their native language as well as English.

Another important implication is for teachers to understand that BICS (Basic Interpersonal Communication Skills) is much easier to learn than CALP (Cognitive Academic Language Proficiency) a. Teachers should not overestimate a child’s ability to acquire academic language based on their interpersonal language skills. A teacher should recognize it takes five to seven years to acquire *academic* English. Teachers should learn about and respect the child’s culture. It is helpful to label classroom and school areas in English and the home language. In addition, provide the student a sheet in English and their home language (it will be a helpful reference for the teacher as well) of common school phrases such as:  
*Can I go to the bathroom?*  
*What page are we on?*  
*I have a question.*  
*I don’t understand.*

*I understand.*  
*How do you say \_\_\_\_?*  
*What’s your name?*  
*My name is \_\_\_\_.*  
*I feel sick.*  
*Can I go to the nurse’s office?*  
*I forgot my homework,*  
*What is the homework?*  
*When is it due?*  
*Can I get a drink of water?*  
*Talk more slowly?*  
*Do you need help?.*  
*I need help.*  
*Why?*  
*How?*  
*When?*  
*Where?*  
*Please*  
*Thank you.*  
*I’m sorry.*  
*Excuse me.*  
*Sit down.*  
*Raise your hand.*  
*Be quiet.*  
*Turn in your homework.*  
*Turn to page \_\_\_\_.*  
*Put your name on your paper.*  
*This is a fire drill.*  
*This is an intruder drill.*  
*This is a tornado drill.*