Poetry can enhance all content areas. This article shares highlights from the 2014 CLA Master Class focused on using poetry in math, science, social studies, the arts, and physical education/movement.

Each year, the Master Class is an exciting opportunity to learn from teacher educators and classroom teachers as they share strategies and resources for successful children's literature instruction. This article is a brief look at some of the wonderful information that was shared at the 2014 event, in the words of each roundtable leader.

“We can also examine the art and illustrations in primary sources alongside the imagery of poetry to help young people visualize other times and places.”
—Sylvia Vardell

Poetry and Social Studies
Sylvia Vardell, professor (Texas Woman's University) and poetry anthologist

Sharing poetry in the context of social studies is natural, given the topics that make up this content area. The curriculum standards of the National Council for the Social
Studies quickly reveal the poem connection possibilities, with thematic strands that focus on culture, people, places, identity, government, technology, society, and civic ideals. These recent poetry titles are just a few that connect to social studies themes:

- **Dare to Dream...Change the World** edited by Jill Corcoran (2012)
- **The Surrender Tree: Poems of Cuba’s Struggle for Freedom** and other poetry collections by Margarita Engle (2008)
- **America at War** and other anthologies edited by Lee Bennett Hopkins (2008)

In addition, the National Council for the Social Studies, in cooperation with the Children’s Book Council, produces the annotated list Notable Tradebooks for Young People, primarily for Grades K–8. The list typically includes four or five books of poetry each year, with a variety of poetry forms and formats by poets such as Marilyn Nelson, Margarita Engle, Jen Bryant, Carmen T. Bernier-Grand, Nikki Grimes, Carole Boston Weatherford, and J. Patrick Lewis.

As we share this poetry with students, many works lend themselves to being read aloud dramatically, Readers Theatre style, with students taking on different roles or characters (particularly with novels in verse). Other poems are powerful in combination with a nonfiction book on the same topic, examining how information is integrated into poetic forms. We can look at the webpage Today’s Document from the National Archives (http://www.archives.gov/historical-docs/todays-doc) and lead students in creating their own original “found” poems out of the text of those historic words. We can also examine the art and illustrations in primary sources alongside the imagery of poetry to help young people visualize other times and places. Conversely, we can utilize the resources of Google Earth or Google Maps to locate the places students read about in poetry, or examine children’s books in different languages from around the world on the International Children’s Digital Library website (http://en.childrenslibrary.org).

Look for “Ten Poetry Collections for Social Studies Not to Be Missed” in **Poetry Aloud Here 2! Sharing Poetry With Children** by Sylvia Vardell (2014) as well as lists of poetry collections organized by topic (e.g., Presidents’ Day, women’s history, U.S. history, world history, and war and peace), plus multicultural and international poetry booklists in **The Poetry Teacher’s Book of Lists** (Vardell, 2012). Additionally, classic American poems with a historical, geographical, or cultural connection can be found online by poets such as Langston Hughes (e.g., “I, Too, Sing America”) and Naomi Shihab Nye (e.g., “Gate A-4”).

"Within both poetry and science beat the twin hearts of observation and imagination.” —Heidi Mordhorst

**The Science of Poetry**

Heidi Mordhorst, classroom teacher and children’s poet

Within both poetry and science beat the twin hearts of observation and imagination. In my kindergarten classroom, we talk about noticing and wondering—about using your five senses to attend to the world all around you and how asking questions and testing out guesses make you smarter.

Both poets and scientists begin their work with close observation. The most striking poems stand on the poet’s ability to help us notice something familiar in a new way. Groundbreaking, life-changing science is built on the scientist’s ability to wonder how something familiar works or might be put to work. Both pursuits are deeply creative.

I emphasize this broader view of the scientific process because it can be difficult to achieve the right conditions for laboratory experimentation in the elementary classroom—but it is always possible to facilitate observation and imagination.

Poetry is a powerful tool for inspiring a scientific turn of mind: on the front end as introduction and later as a means for recording and summary. Let’s look at how a series of well-selected poems can lead into, enrich, and then expand a study of leaves—an easily accessible, versatile, and essential natural resource.


From the first lines of this last poem, students are coached in how to really look at a thing and how to become both scientist and poet. By the final lines, they have used all of their faculties to consider the lowly, perfect leaf. Now is the time to fetch bags of leaves into the classroom and to compare, sort, identify, and label quantities of (free!) leaves.
“A hole is to dig” (Krauss, 1952/1989), but what is a leaf? Laura Purdie Salas (2012) provides plenty of answers in *A Leaf Can Be...*: “Shade spiller / Mouth filler / Tree toppler / Rain stopper” (front flap). What else can your students think of? Challenge them to engineer new uses for different kinds of actual leaves.

Does your curriculum include life cycle and ecology studies? Share “In Hardwood Groves” by Robert Frost (1994), emphasizing the cyclical nature of “The same leaves over and over again!” (line 1) going “down into the dark decayed” (line 8).

Finally, offer students the opportunity to write their own leaf poems. Some will describe in their poems, others will invent, and still others will teach. If you have children who need a scaffold, open their twin hearts of observation and imagination with the line “I thought I knew leaves, but now...” This question of how we know what we know is the science of poetry.

“Math and poetry share a love of structure.” —Mary Lee Hahn

Poetry and Math
Mary Lee Hahn, classroom teacher and poet
Math and poetry are parallel tracks—two ways of knowing that help us process the world the way our left and right brains weave experience into meaning.

The overlap between the ways we think mathematically and what poetry is and does can be found in six of the eight mathematical processes identified in the Common Core State Standards for Mathematics (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010):

1. “Make sense of problems and persevere in solving them” (p. 6): Poetry often reveals more and more layers of meaning and the poet’s craft when read multiple times. Sometimes the meaning in a poem is like a puzzle to solve. As readers encounter more complex poems, they need to persevere to make sense of the poems and find meaning in them.

2. “Reason abstractly and quantitatively” (p. 6): This mathematical process is practically a definition of poetry: The abstract equates to the ideas of a poem, and the rhythm, rhyme, stanzas, and other measurable features represent the poem’s quantitative aspects.

3. “Construct viable arguments and critique the reasoning of others” (p. 6): Because poems can mean different things to different readers, the conversations about poetry are rich with reasoning, explaining, debating, and learning. Often, a discussion about a poem can leave one or more readers with new ways of thinking and understanding.

4. “Attend to precision” (p. 7): This process is found both in the reading of poetry (attending to the poem’s rhythm, rhyme, line breaks, repetitions, pauses, and meanings) and the writing of poetry (embedding rhythm, rhyme, line breaks, pauses, and meanings for the reader to find and follow).

5. “Look for and make use of structure” (p. 8): Math and poetry share a love of structure. In math, there are equations, geometric regularity, units of measurement, and numerical operations. In poetry, there are pantoums, sonnets, and limericks. The place where poetic structure and mathematical structure intersect is called a *fib*. This form, popularized in 2006 by Greg Pincus, follows the Fibonacci sequence. Each line in the poem has the number of syllables in the sequence (1, 1, 2, 3, 5, 8...).

6. “Look for and express regularity in repeated reasoning” (p. 8): Perhaps this process has less to do with reading or writing a single poem than it does with what can come of a long-term relationship with poetry. In order for students to build such a relationship, teachers need to embed poetry in each discipline every month of the school year (not just April). When we regularly make time for poetry in our classrooms, we give our students another way to understand and describe their world.

Poetry, Sports, and Games
Jacqueline Jules, children’s author and poet
Poetry is a topic that students (and even teachers) are often reluctant to discuss, but classroom conversations about sports, games, and other types of recreation can quickly become lively, even passionate. Recreational activities encompass a wide variety of personal interests and abilities and can be enjoyed from the perspective of both participant and spectator. More importantly, sports are solidly associated with fun rather than work.

Sports poetry provides students with intrinsically high-interest literature. Boys, in particular, may discover a new interest in self-expression if given the opportunity to write about the
sports they love. Poems about sports express the emotional highs and lows of athletic competition. They evoke strong memories of friendship and family. Moreover, many powerful life experiences occur on the ball field and the court. Young people learn goal setting, cooperation, and strategies for handling disappointment. Sports poetry can include metaphors for these important lessons, validating the confidence and self-esteem that students gain from their athletic endeavors.

Even kindergartners can be encouraged to use similes to describe movement with comparisons like “running like a cheetah” or “jumping like a kangaroo.” Older students can generate lists of sound and action words used in writing or reading sports poetry. A favorite game is a particularly good subject for an acrostic, in which the first letter of each poetic line spells out the sport. The diamante, which requires the poet to use a specified number of nouns, adjectives, and verbs, is an excellent exercise in description. *Pucks, Clubs, and Baseball Gloves: Reading and Writing Sports Poems*, compiled and annotated by Jill Kalz (2014), contains sports poetry in a variety of poetic forms and includes a glossary.

Free verse provides a vehicle to vividly describe the excitement inherent in athletics by giving alliteration and other figurative language a more prominent role. For example, a poem about skiing might contain several words beginning with *s*, suggesting the sound of the sport and snow.

The familiar poem “Casey at the Bat” provides students with a slice of Americana, and Bob Raczka’s (2014) picture-book *Joy in Mudville* gives an alternate take on the story with a female pitcher and a happier ending. Students can study the famous original and its contemporary variant, make comparisons, and write their own narrative poems about a different sports moment, modeled after these poems.

Pairing poetry with sports that students already enjoy can promote an animated response and help students make a lasting connection to the pleasures of this genre.

“Poetry and art together inspire creativity and action in the classroom.” —Paige Bentley-Flannery

Add poetry to the arts to support the Common Core State Standards in a fun way. After looking at a Jackson Pollock painting, what kind of poems can students write? After listening to musical instruments, what words can students create in their poems? Poetry and art together inspire creativity and action in the classroom.

Explore a few activities with art supplies, poetry, and a selection of children’s art books:

- **Paint a poem**: Editor Jan Greenberg (2001) offers a unique way to discover poetry and art in *Heart to Heart: New Poems Inspired by Twentieth-Century American Art*. Original poems created in response to works of art are grouped together in four sections: stories, voices, expressions, and impressions. In “On Lichtenstein’s ‘Bananas & Grapefruit’” Deborah Pope uses creative words like “gulppulp” and “eat art” (p. 56). Play with words as you write your own concrete poem describing Lichtenstein’s painting.

- **Splat a poem**: Create your own list poem describing one of Pollock’s paintings. Start with the word *splat* to open up the discussion about abstract art with either a quick poem filled with action words or a longer descriptive poem. Ask questions about his art medium, the size of his paintings, and what he was feeling. Ask, “What do you see in the painting?” Suggested books are *The Art Book for Children: Book Two* by Amanda Renshaw (2007) and *Action Jackson* by Jan Greenberg and Sandra Jordan (2002).

- **Eat a poem**: Have fun with poetry and art! Read the poem “Painting on Toast” from *Soup for Breakfast: Poems and Pictures* by Calef Brown (2008). Then, make your own silly painting poem. Create a “mestertpiece” using a piece of bread, raspberry jam, blueberry jam, cinnamon, raisins, and one paintbrush. (You can also use a toothbrush and other items from your refrigerator.) Is it messy? How does it taste? Write your own poem describing how you created a painting on toast.

- **Sing a poem**: Music invites students to sing and dance, and musical instruments create a wide range of sounds. Play a variety of instruments and write a one-minute poem describing the sounds. Make up words! Is your poem loud? Write out the sounds in HUGE letters!

Lift poetry off the page and into the Common Core curriculum in fun and educational ways!

We hope that these practitioner perspectives and teaching suggestions will inspire you to use poetry to integrate language arts into other subject areas. In just five minutes or less each day, you can teach required standards and
skills by sharing a poem or the poetry writing process. Think of it as killing two birds with one stone or, in the words of George Ella Lyon, “as two birds hatching from one egg”—not just during a poetry unit or National Poetry Month but every day of the year.

You can access the CLA 2014 Master Class handout here: http://center.uoregon.edu/NCTE/uploads/2014NCTEANNUAL/HANDOUTS/KEY_1993284/2014CLAMasterClassguides.pdf.

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