



Engaging Students in Discourse

As a student, I did not have much interest in history/science or other academic content areas because I learned it as a set body of knowledge. When I talk to others who are of a similar age, they tend to have the same opinion. There was nothing to figure out or argue. I never once considered what historians/scientist did.

My misconception of history and science as a set body of knowledge had everything to do with the sources and pedagogical methods that were being used. My textbooks presented history and science as a static body of knowledge devoid of all traces of historical and scientific thinking.

The Arizona College and Career Ready Standards in reading, writing and speaking & listening validate the importance of students engaging in the practice of analyzing and writing historical/ scientific arguments. To build a foundation for college and career readiness, students must have ample opportunities to take part in a variety of rich, structured conversations—as part of a whole class, in small groups, and with a partner. Being productive members of these conversations requires that students contribute accurate, relevant information; respond to and develop what others have said; make comparisons and contrasts; and analyze and synthesize a multitude of ideas in various domains.

What I have since learned is that while history and science may begin with facts, they do not end there. The excitement and rigor of learning lies in the interpretation—how one makes sense of the facts.

If our students are going to develop an appreciation of history and science as dynamic disciplines of meaning-making, they must be immersed in models of

texts that demonstrate varied perspectives on a topic. Our students need to analyze historical and scientific arguments that allow them to identify and evaluate authors' claims and the evidence used to support those claims. Additionally, our students need multiple opportunities to try their own hand at making meaning through historical and scientific thinking and writing.

As a student, what I did not yet know about history and science is that there always has been and always will be historical and scientific meaning to be made and arguments to be constructed. The Arizona College & Career Ready Standards offer an exciting expectation that our students can and will engage in the rigors of this historical and scientific discourse. To support students in meeting this expectation, teachers need access to a wide range of writing models beyond those offered in textbooks. Teachers also need access to resources that are based in pedagogical methods that align with an understanding of history as a dynamic discipline based in interpretation.

We work in an exciting time in education. Our office looks forward to collaborating with all of you as we move forward. To find some exciting resources please click on our resource link.

Cheryl Mango-Paget & The CCESA I & D Team

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Resources

Here are a few links containing additional information, including details on what each child will be expected to know and do in each grade and tips for parents:

<http://ccesa.az.gov/>

<http://www.azed.gov/standards-development-assessment/parcc-assessment/>

<http://www.azed.gov/standards-development-assessment/parcc-assessment/>

<http://parconline.org/>

www.corestandards.org

www.pta.org/parentsguide

<http://www.azed.gov/standards-practices/files2012/05/rtt-implementation-plan-2-6-12.pdf>

<http://www.parconline.org/samples/item-task-prototypes>

www.theteachingchannel.org/



Speaking and Listening Standards

Source: <http://www.youtube.com/watch?v=FZXwEaHrdbo>

The key points of the standards require that students gain, evaluate, and present increasingly complex information, ideas, and evidence through listening and speaking as well as through media. An important focus of the standards is academic discussion with partners, in a small group and in whole class settings.

Formal presentations are one way such talk can take place. Such an opportunity can also be provided with more informal discussions that take place as students collaborate to answer questions, build understanding and solve problems. From kindergarten through high school, Standard One insists that students work responsively and respectfully with diverse partners. Students need to come prepared with research they have done for the discussion. In addition, they must listen carefully, share findings, and challenge one another to leave the collaboration knowing more than before they started.



Primary Grades Speaking & Listening Activities

Talking Stick



A stick is given to the student who will speak his/her answer to a question about the text that was just read to the class. The student answers, the stick is passed to another student, who will then respond to another question. Students without the stick are encouraged to be active listeners while other students are speaking.

I Learned, I Saw, I Know

After reading an informational text aloud, students will complete these three sentences:

- 1) I learned _____.
- 2) I saw _____.
- 3) I know _____.

McMahon, C., & Warrick, P. (2010). *We can write*. Portland, OR: Education Northwest.



Secondary Grades Speaking & Listening Strategies



Barry (2010) states when students read and discuss great texts, they will learn to think deeply and respect multiple points of view. The Touchstone Discussion Technique teaches

those skills which are needed for participating in discussions and it consists of four guidelines:

- 1) Read the text carefully.
- 2) Listen to others and do not interrupt.
- 3) Speak clearly.
- 4) Respect others.

Students reflect on their reading in writing as well as discuss their thoughts in small groups.

Barry, C. (2010). From great texts to great thinking. *Educational Leadership*, 67(6), 42-46.

Teaching & Learning Fractions Using the AZCCRS-Mathematics

One of the nicest changes made in the mathematics standards is the way in which the fraction progression unfolds over the elementary grades. Research has shown that a strong understanding of fractions is critical for students to be successful in algebra. Remember; CCRS stands for College and Career Ready Standards and all high school students are now required to complete four years of high school level mathematics, including Algebra II or a course of equivalent content.

However, one of the more alarming findings from a U.S. Department of Education study concludes that:

“A high percentage of U.S. students lack the conceptual understanding of fractions even after studying fractions for several years; this in turn, limits students’ ability to solve problems with fractions and learn and apply computational procedures involving fractions.” NCEE 2010-4039

Continued on Page 3

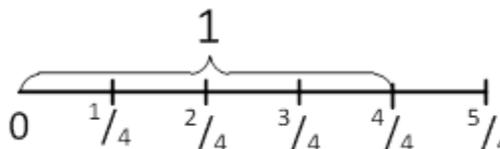
Teaching & Learning Fractions Using the AZCCRS-Mathematics (Continued from page 2)

Grades 1 & 2

In Grades 1 and 2, students build a basic understanding of fractions by splitting a shape into smaller equal-sized shares. Students describe these equal shares as halves, thirds, or fourths; they connect two halves, three thirds, or four fourths of a circle to reform the whole. While the term "fraction" may not necessarily be used at this time, this understanding prepares students for their formal study of fractions in Grade 3. (1.G.A.3 and 2.G.A.3) Understanding of the number line as applied to whole number representations is also a grade 2 standard (2.MD.B.6) and sets the foundation for representing unit fractions on the number line.

Grade 3

In Grade 3, students start working with unit fractions (fractions with numerator 1), which are formed by partitioning a whole into equal parts and taking one part, e.g., if a whole is partitioned into 4 equal parts then each part is $\frac{1}{4}$ of the whole, and 4 copies of that part make the whole. Next, students build fractions from unit fractions, seeing the numerator 3 of $\frac{3}{4}$ as saying that $\frac{3}{4}$ is the quantity you get by putting 3 of the $\frac{1}{4}$'s together. (3.NF.1) They read any fraction this way, and in particular there is no need to introduce "proper fractions" and "improper fractions" initially; $\frac{5}{4}$ is the quantity you get by combining 5 parts together when the whole is divided into 4 equal parts.



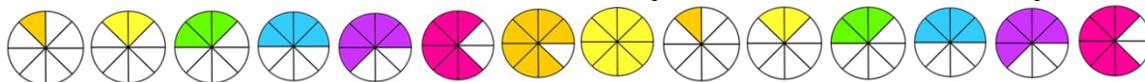
Grade 4

In Grade 4, students learn a fundamental property of equivalent fractions: multiplying the numerator and denominator of a fraction by the same non-zero whole number results in a fraction that represents the same number as the original fraction. This property forms the basis for much of their other work in Grade 4, including the comparison, addition, and subtraction of fractions and the introduction of finite decimals.

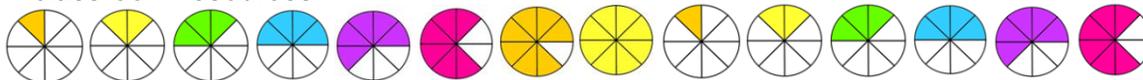
Grade 5

In Grade 5, students combine their understanding of equivalent fractions with composing and decomposing fractions to add and subtract fractions with unlike denominators, recognizing the need for a common denominator to complete the operation. They interpret fractions as an expression of division, connecting fractions to their understanding from Grades 3 and 4 of division as equal sharing. Students connect a basic understanding of partitioning (Grade 2) to multiplication by fractions, e.g., partitioning a $\frac{1}{2}$ of a circle into three (3) equal parts is the same as multiplying $\frac{1}{2}$ by $\frac{1}{3}$, and use this to multiply fractions by fractions.

In preparation for an in-depth study of ratios and proportions in Grade 6, students begin to build an understanding of multiplication as scaling. This idea is reinforced through previous exposure to decomposition of larger shapes into smaller, yet similar shapes, e.g., decomposing a rectangle into four equal-sized rectangles can illustrate that multiplying a number by $\frac{1}{4}$ produces a number that is $\frac{1}{4}$ as large as the original.



All teachers in Grades K-5 should read the standards and the Fraction Progression document with collaborative groups and come to a common understanding of their meaning and decide how to best teach these standards within their grade and how to support future learning. Textbooks used to teach the 2008 AZ Standards are not aligned with the content and by no means address the depth of understanding required of these new standards. However, several state education departments are an excellent source of classroom resources.





By [Lindsey Tepe](#) — March 7, 2014

The SAT and ACT—the premier college admissions examinations—have “become disconnected from the work of our high schools.” This proclamation by David Coleman, president of The College Board (the developer of the SAT), came during his announcement of forthcoming changes to the SAT that will aim to address this issue. And while this news has touched off a flurry of headlines, the national media and higher education outlets are missing a huge piece of the story: the role the Common Core has played in driving these changes.

The major content and procedural changes the SAT will undergo have been well documented by news outlets—[the New York Times](#), [the Chronicle](#), and [Inside Higher Education](#), to name a few. The announced changes move the SAT closer to ACT's content-based method of assessment, an achievement test seen as more connected to the work of high schools. Wonkblog pointed out that [ACT's increased market share](#) (up to 54 percent) is no doubt driving these changes. It's not just ACT's increased market share that's got the SAT's creators worried. In a country with 50 sets of education standards and 50 different state-developed high school assessments, the ACT and SAT have touted their unique ability to compare diverse applicants from across the United States. But the work of high schools themselves is now converging, and students from 45 states and the District of Columbia are working toward mastery of the same academic standards.

While the Times, the Post, the Chronicle, and Inside Higher Ed all gave a brief nod toward Coleman's role in developing those Common Core State Standards for K-12 education, adopted by this large majority of states, **neither Coleman** nor the national media have really honed in on how the standards are driving the College Board—as well as the ACT—to change their product. To this point, in the new education landscape that has taken shape since these standards' widespread adoption, how useful really are college admissions tests that do not actually assess the standards that we have determined prepare students for college and careers?

While the SAT and ACT are trying to stay ahead of the curve, perhaps the two new college- and career-ready assessments will have better grades.

There's little doubt that ACT recognized this point and has updated their products in response. ACT recently announced the launch of new assessments for grades 3-8 that are explicitly designed to assess the Common Core standards, ACT Aspire, which will culminate in the ACT for high school assessment. Last year, Alabama officially [announced](#) that it will use these tests to assess mastery of their state standards, the Common Core.

When Coleman became president of the College Board back in 2012, after his work developing the Common Core, he [stated](#) his goal for moving the SAT to better reflect those standards. On Wednesday, Education Week [described](#) in detail how the new changes to the SAT align with the Common Core—and presented an excellent [side-by-side comparison](#) of the SAT and Common Core that illustrates how Coleman's goal will become a reality. (Education Week, largely focused on K-12 education news, has expertly covered the role of the Common Core in driving changes to the SAT.)

This new SAT will not be released until 2016—but next year students will begin to take assessments developed by two state consortia that explicitly measure mastery of the Common Core standards. The high school assessments will provide detailed information about student achievement in reading and mathematics, and will provide a source of student achievement data that is comparable across states. It may prove that these state-developed Common Core assessments are also a strong predictor of college success.

As the New York Times [reiterated](#), “Critics have long pointed out—and Mr. Coleman admits—that high school grades are a better predictor of college success than standardized test scores.” While the SAT and ACT are currently the only players in the market of college admissions exams, they still have not succeeded in creating products that have stronger predictive power than high school grade point average. Though these two assessment giants are now trying to connect with the Common Core, it remains to be seen whether their new tests will be more predictive of student success in college. While the SAT and ACT are trying to stay ahead of the curve, perhaps the two new college- and career-ready assessments will have better grades.

- See more at: <http://www.edcentral.org/college-admissions-exams-connecting-to-the-work-of-high-school/#sthash.csswpjH.rYFCyqv4.dpuf>