Rigor, Relevance & Best Practice Newsletter

SECONDARY EDUCATOR EDITION

NOVEMBER 2014

BREAKING NEWS: AZ Announces New Test to Replace AIMS

From Expect More Arizona

On November 3, the Arizona State Board of Education adopted Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) as the new statewide test. The assessment will be given to Arizona students in 3rd grade through high school this spring and will replace the AIMS test in reading, writing and math.

The test will be administered by the American Institutes for Research (AIR), a private, not-for-profit test vendor, and will be overseen and controlled by Arizona. The test will be unique to Arizona and will engage Arizona educators and education experts in developing questions for the new assessment. The assessment will also draw from AIR's work in other states to ensure that student test information is comparable across states.

WHY A NEW TEST?

While testing is sometimes not fun, parents and teachers agree that assessments are important tools that provide valuable information to support student learning. The new tests will be aligned to what is being taught in classrooms today and will help parents and teachers know if our students are on track to succeed.

WHAT YOU NEED TO KNOW ABOUT THE NEW TEST

At the high school level, assessments will be given at the end of English and math courses, similar to a final exam. Passing the end-of-course tests will not be a high school graduation requirement. School districts and charter schools can choose to administer the assessment via pencil/paper or on a computer. Personal student data has never been, and never will be, shared with the federal government. Student test data is protected via a number of state and federal laws. including: A.R.S. §§ 15-1041 through 15-1045, Children's Online Privacy Protection Act (COPPA), Family Educational Rights and Privacy Act (FERPA), and Federal Information Security Management Act (FISMA). The new test replaces AIMS in reading, writing and math, but the AIMS science test will still be given to students in Grades 4, 8 and high school.

NEW TEST, DIFFERENT SCORES

The new tests will also help Arizona set a more realistic benchmark for student performance. Because we have a completely new test, scores will look different and may be lower than before; however, this doesn't mean that our students are doing worse. Instead, the scores will provide a more accurate view of how our students are performing. Both students and teachers will need time to adjust to the new assessment. With time and our support, we know Arizona students will rise to the challenge.

WHAT'S NEXT?

There are a number of details that need to be determined about how the assessment will be implemented and how scores will be used for students, teachers and schools. The State Board of Education is meeting in December to discuss the potential of a hold harmless year that would give teachers, schools and students flexibility with accountability measures while they adjust to the new tests.

The Arizona Department of Education is working to address implementation issues, including when the testing window will be and how the new test will be delivered.

SIGN UP TO GET UPDATES AND HEAR OPPORTUNITIES TO BE INVOLVED

As these items are being discussed, there will be opportunities for parents, teachers and community members to get involved to share their perspectives. Your opinion matters! It is up to all of us to be involved to support our kids, teachers and schools!

MORE DETAILS

Read more about the selection process used by the State Board of Education.

Learn more about AzMERIT.

http://www.expectmorearizona.org/blog/2014/11/03/new-test/#sthash.UkZ68dMQ.dpuf

http://www.azed.gov/assessment/azsampleassessmentitems/

Center

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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/

To view the detailed testing calendar, click here.

www.azed.gov/AzMERIT

http://www.azed.gov/assessment/azsampleassessmentitems/

http://achievethecore.org/

https://www.engageny.org/

www.corestandards.org

www.pta.org/parentsguide

http://ww.azed.gov/standards-practices/files2012/05/rttt-implementation-plan-2-6-12.pdf

www.theteachingchannel.org

Writing Focus: Begin with Standard # 10

Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

This year's CCESA Anchor Standards' Challenge focuses on writing. To date the CCESA Office of I & D has highlighted the first three Anchor Standards. This was done to bring attention to the three types of writing the AZCCRS for ELA, Social Studies, History, Science & Technical Subjects ask students to know and be able to do. This year's CCESA newsletters will have a focus of writing and delve into what students will need to accomplish at each grade level in order to become college and career ready. We begin this series of newsletters with standard ten due to the nature of its demand to implement writing into all coursework throughout the year. "To build a foundation for college and career readiness, students need to learn to use writing as a way of offering and supporting opinions, demonstrating understanding of the subjects they are studying, and conveying real and imagined experiences and events (CCAS, 2010). Standard ten requires students to "write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences" (CCAS, 2010).

Organizing and building classroom activities that meet this standard along with combining with other literacy standards is a critical factor for the student. "They develop the capacity to build knowledge on a subject through research projects and to respond analytically to literary and informational sources. To meet these goals, students must devote significant time and effort to writing, producing numerous pieces over short and extended time frames throughout the year" (CCAS, 2010).

Writing Strategy: Snapshot Stickies

Writing about text improves comprehension, as it helps students make connections, between what they read, know, understand and think (Carr, 2002).

Standard #10 asks students to write routinely. Snapshot Stickies is a visualization activity for both fiction & nonfiction text that uses sticky notes. While reading, students sketch their mental picture – what they are visualizing – onto sticky notes. They should not copy any visuals that are already on the page. Students can include a brief written explanation on the front or back of each sticky note. Those notes may then be used to write a summary, paragraph or essay. The notes can be displayed in the student's notebook or learning journal, or poster and used for future discussion and review.

Carr, S. (2002). Assessing learning processes: Useful information for teachers and students. Intervention in School and Clinic, 37, 156-162.

Writing Strategy: Shrinking Summary

There is extensive research that shows that summarization is among the top nine most effective teaching strategies in the history of education (Marzano, Pickering, and Pollock, 2001). Summarizing should be part of every student's skill set, but it's not an intuitive skill for many students. It has to be developed, practiced, and refined. After reading a passage, give students a 4x6 index card to write a summary. Allow them to write as much as they want. When finished, give each student a standard square sticky note (3x3). Without looking back at the reading, and with the smaller space, students then rewrite their summaries utilizing only the most important details and information from their original 4x6 cards. Then provide each student with a single strip of paper (1x3). They have to revise their 3x3 sticky note summaries as single, main idea sentences on their final 1x3 sentence strips.

Marzano, R., & Pickering, D. (2001). Classroom instruction that works: Research-based strategies for increasing student achievement. Alexandria, Va.: Association for Supervision and Curriculum

ELA Anchor Standard #10: Applications in the Math Classroom

EngageNY is a website developed by the New York State Education Department to support the implementation of the CCSSM. The website provides educators with professional learning tools and resources for support of achieving college and career readiness for all students. EngageNY instruction resources that include in-class activities, exit slips and practice sets with teacher notes and sample student responses.

https://www.engageny.org/

Writing in Math: 6-8 Examples from EngageNY

6th GRADE EXAMPLE

This is from the Classwork for Lesson 4, Topic A in 6th Grade Module 1. Module 1 focuses on the introduction to Ratios and Proportional Relationships, with Topic A focuses on Ratio language. In this lesson, the students explore equivalent ratios. Students are encouraged during this module to use tape diagrams as a way to solve equivalent ratio problems. In this problem, students are also engaged in Practice Standard 3: Construct viable arguments and critique the reasoning of others.

7th GRADE EXAMPLE

This is a Lesson 20 exercise for Topic C in 7th Grade Module 2, addressing Practice Standard 3 and 7.NS.3.
https://www.engageny.org/resource/grade-7-mathematics-module-2

The morning announcements said that two out of every seven 6th grader in the school have an overdue library book. Jasmine said, "That would mean 24 of us have overdue books!" Grace argued, "No way. That is way too high." How can you determine who is right?

The register below shows a series of transactions made to an investment account. Vinnie and Anthony both completed the register in hopes of finding the beginning balance. As you can see, they do not get the same answe
Who was correct? What mistake did the other person make? What was the monthly gain or loss?

Original Register

DATE	DESCRIPTION OF TRANSACTION	PAYMENT	DEPOSIT	BALANCE
	Beginning Balance	---	---	
3/1/11	Broker's Fee	250.00		
3/10/11	Loan Withdrawal	895.22		
3/15/11	Refund – Misc. Fee		50.00	
3/31/11	Investment Results		2,012.22	18,917.00

Vinnie's Work

DATE	DESCRIPTION OF TRANSACTION	PAYMENT	DEPOSIT	BALANCE
	Beginning Balance	---	---	18,000.00
3/1/11	Broker's Fee	250.00		17,750.00
3/10/11	Loan Withdrawal	895.22		16,854.78
3/15/11	Refund – Misc. Fee		50.00	16,904.78
3/31/11	Investment Results		2,012.22	18,917.00

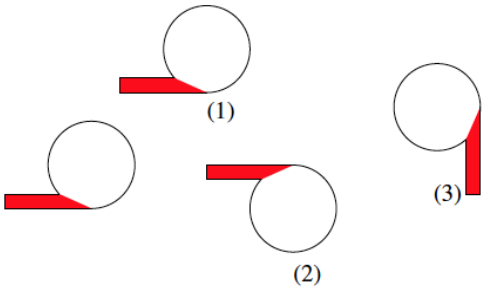
Anthony's Work

DATE	DESCRIPTION OF TRANSACTION	PAYMENT	DEPOSIT	BALANCE
	Beginning Balance	---	---	19,834.00
3/1/11	Broker's Fee	250.00		20,084.00
3/10/11	Loan Withdrawal	895.22		20,979.22
3/15/11	Refund – Misc. Fee		50.00	20,929.22
3/31/11	Investment Results		2,012.22	18,917.00

8th GRADE EXAMPLE

This is the Exploratory Challenge from the Classwork for Lesson 1, Topic A in 8th Grade Module 2. Module 2 focuses on geometry, with Topic A working on rigid motion transformations. This problem occurs before the formal introduction of the necessary mathematical vocabulary including rotation, translation, reflection and congruence.
https://www.engageny.org/resource/grade-8-mathematics-module-2

Describe, intuitively, what kind of transformation will be required to move the figure on the left to each of the figures (1)–(3) on the right. To help with this exercise, use a transparency to copy the figure on the left. Note: Begin by moving the left figure to each of the locations in (1), (2), and (3).



Writing Focus: Begin with Standard # 10 - *Strategies for High School*

Writing Strategy: Summary "Tweet"

There is extensive research that shows that summarization is among the top nine most effective teaching strategies in the history of education (Marzano, Pickering, and Pollock, 2001). As students read, have them write a summary as if they were "tweeting" (writing a Twitter message) to a peer. Twitter only allows for 140 characters including spaces and punctuation. Students write out their Twitter summaries on paper, but they are conscious of their characters the entire time. This requires students to summarize the main idea of the reading, but it also gives them an authentic audience (a peer), connects to their love of anything digital, and answers the age-old student question: "How many sentences do we have to write?"

Writing Strategy: $2.00 Summary


CLASSIFIED

Visit our office at: 1165 Beave

00 to place your classified ad

Financial

Property For Sale

Services

There is extensive research that shows that summarization is among the top nine most effective teaching strategies in the history of education (Marzano, Pickering, and Pollock, 2001). Summarizing should be part of every student's skill set, but it's not an intuitive skill for many students. It has to be developed, practiced, and refined. Tell students to imagine they are placing a classified ad or sending a telegram, where every word used costs them money. Tell them each word costs 10 cents, and then tell them they can spend $2.00. to spend. That means they have to write a summary that has no more than 20 words. You can adjust the amount they have to spend, and therefore the length of the summary, according to the text they are summarizing.

Marzano, R., & Pickering, D. (2001). Classroom instruction that works: Research-based strategies for increasing student achievement. Alexandria, Va.: Association for Supervision and Curriculum

Writing in Math: High School Examples from EngageNY

ALGEBRA I EXAMPLE

This is an exercise from Lesson 11, in Algebra Module 2. Module 2 focuses on Interpreting Categorical and Quantitative Data. This problem has students working on S-ID.5 (Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies.) Recognize possible associations and trends in the data.) and S-ID.9 (Distinguish between correlation and causation.) https:/ /www.engageny.org/resource/algebra-i-module-2

Now consider the following statistical study:

Fifty students were selected at random from students at a large middle school. Each of these students was classified according to sugar consumption (high or low) and exercise level (high or low). The resulting data are summarized in the following frequency table.

		Exercise Level		
		High	Low	Total
Sugar Consumption	High	14	18	32
	Low	14	4	18
	Total	28	22	50

Is there evidence of an association between sugar consumption category and exercise level? Support your answer using conditional relative frequencies.

Do you think it is reasonable to conclude that high sugar consumption is the cause of the observed differences in the conditional relative frequencies? What other explanations could explain a difference in the conditional relative frequencies? Explain your answer.

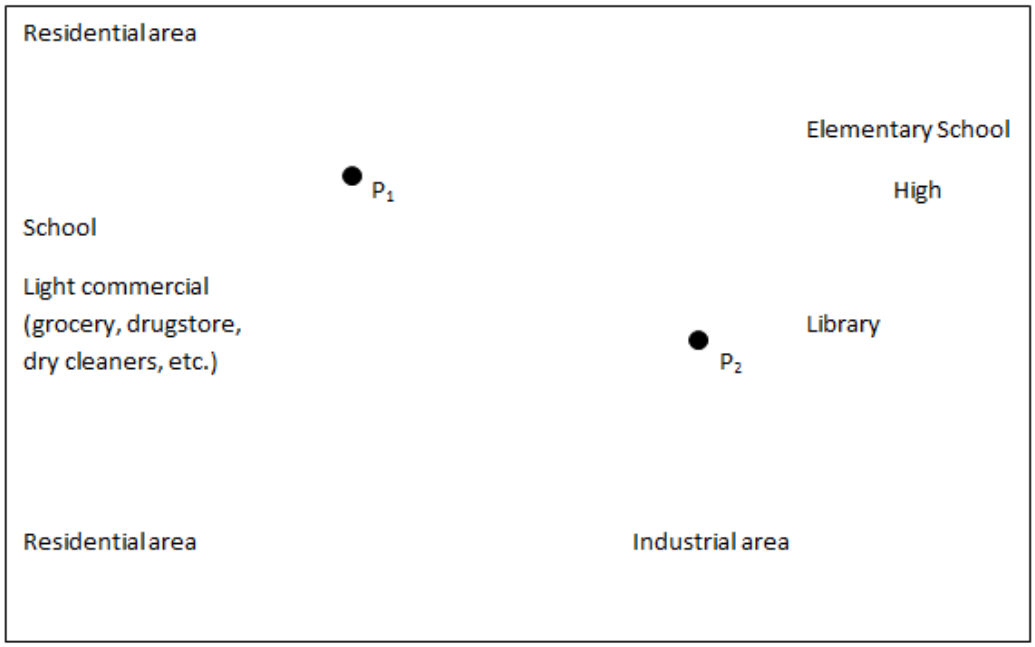
Writing in Math: High School Examples from EngageNY *continued*

GEOMETRY EXAMPLE

This is an exercise from Lesson 1, in Geometry Module 1. Module 1 focuses on Congruence in Geometry. In this introductory lesson students begin to work on precise language of geometry (G.CO.1) through an application problem (MP4 – Model with Mathematics). Students are just beginning to make constructions (G.CO.12 and G.CO.13). https://www.engageny.org/resource/geometry-module-1

You will need a compass and straightedge.

Cedar City boasts two city parks and is in the process of designing a third. The planning committee would like all three parks to be equidistant from one another to better serve the community. A sketch of the city appears below, with the centers of the existing parks labeled as P_1 and P_2. Identify two possible locations for the third park, and label them as P_{3a} and P_{3b} on the map. Clearly and precisely list the mathematical steps used to determine each of the two potential locations.



ALGEBRA II EXAMPLE

This is a problem set from Lesson 1, in Algebra 2 Module 2 on Trigonometric Functions. This problem set is a precursor to formally graphing trigonometric functions as it gets at the unit circle concept before introducing the vocabulary.

Suppose that a Ferris wheel is 40 feet in diameter, rotates counterclockwise, and when a passenger car is at the bottom of the wheel it is located 2 feet above the ground.

a. Sketch a graph of a function that represents the height of a passenger car that starts at the 3 o'clock position on the wheel for one turn.
b. Sketch a graph of a function that represents the height of a passenger car that starts at the top of the wheel for one turn.
c. The sketch you created in part (a) represents a graph of a function. What is the domain of the function? What is the range?
d. The sketch you created in part (b) represents a graph of a function. What is the domain of the function? What is the range?
e. Describe how the graph of the function in part (a) would change if you sketched the graph for two turns.
f. Describe how the function in part (a) and its graph would change if the Ferris wheel had a diameter of 60 feet.