

# Curriculum reView

Bob Melton

CIA Director - Dr. Joe Pierce

## Are You a “Father O’Malley” or a “Sister Mary Benedict?”

In this classic *Kappan* article, Texas middle-school principal Tina Juarez recalls a scene from the 1945 movie, The Bells of St. Mary’s. Father O’Malley, a parish priest played by Bing Crosby, asks Sister Mary Benedict, the no-nonsense principal of St. Mary’s parochial school played by Ingrid Bergman, to shift a student’s failing exam grade to passing. Patsy, the student in question, is a troubled child and Father O’Malley has taken pity on her. If the test score isn’t raised, she will fail the semester and be unable to graduate with her class. Father O’Malley tries to persuade the principal, even suggesting that Patsy be given extra points for spelling her name correctly.

“Do you believe in just passing everybody, Father?” demands Sister Mary Benedict.

“Maybe I do,” says Father O’Malley. “Aren’t we here to give children a helping hand – or are we here to measure their brains with a yardstick?” He wants to know why 75 is the passing score.

“Would you put the standard at 65, Father?” asks Sister Mary Benedict.

“Why not?” he replies.

*(continued on pg. 3)*

## Putnam City and ACT’s College Readiness Standards *(part 1 of a series)*

ACT’s Educational Planning and Assessment System (EPAS) is an integrated series of assessment and career planning programs designed to help students increase their academic readiness for college. Three assessments - EXPLORE®, given to Putnam City students in 8th grade, PLAN®, given in grade 10, and the ACT® (most often taken by PC students during their 11th and 12th grade years) measure student achievement in English, mathematics, reading, and science reasoning.

EPAS is much more than just a series of tests. At the foundation of the program are ACT’s College Readiness Standards (CRS). The Standards offer learning strategies that are likely to help students meet state standards and acquire more advanced concepts associated with higher ACT scores and subsequent success in college. Since there is a very high correlation between the College Readiness Standards and the Priority Academic Student Skills, EPAS is a useful tool to assess student capabilities as they progress through the grades.

The College Readiness Standards are detailed, research-based description of the skills and knowledge associated with what students are likely to know and be able to do based upon their EXPLORE, PLAN, and ACT test scores.

They serve as a direct link between what students have learned, what they are ready to learn next, and what they must learn before leaving high school in order to be prepared for college.

Most folks are aware that each subtest of the ACT is based on a score range of 1-36. The score range for each of PLAN’s subtests is 1-32, and EXPLORE has a subtest score range of 1-25. But people may be less aware of the fact that the tests share a common scale such that a score of 20 on a particular subtest in EXPLORE reflects the same acquired skill as does a 20 on the PLAN or a 20 on the ACT. This enables EPAS to provide seamless data

*(continued on pg. 2)*

**What do EXPLORE, PLAN,  
and ACT scores tell me  
about *what my students know?***

# EOI Calculator Policy Changed

(announced by OSDE, 8/27/09)

The items on the **Algebra I**, **Geometry**, **Algebra II**, and **Biology I** assessments are designed so that calculators are not required to solve any of the problems. All tasks can be solved without the use of a calculator. However, certain tasks are much more difficult if a calculator is not available. Before the first day of the test, students using a calculator for any EOI mathematics or science assessment should be familiar with the use of the specific calculator that will be utilized. Students must be instructed in the use of calculators or this tool can actually hinder students' performance on the assessment. The appropriate calculator will be available for the online version of the EOI mathematics and science tests.

## Subject-specific Requirements

Algebra I, Geometry, and Biology I:

- Scientific Calculators meeting general requirements may be used on all/specified sections.

Algebra II:

- Graphing Calculators meeting general requirements may be used on all/specified sections.

## General Requirements

- Calculators are permitted but are not required.
- Calculator capabilities described for a specific subject give the maximum capabilities allowed; calculators with less capability are acceptable.
- Students may not share calculators.
- Students may use their own calculators or those provided by the school.
- Calculators that make noise must have the sound feature turned off.
- Calculators that have paper tape must have the tape removed.
- Calculators with power cords must have the cord removed.
- All calculators must have the memory cleared before and after the test session.
- Any programs or applications must be removed prior to the test session.

## Prohibited Calculators

- Pocket organizers
- Handheld or laptop computers
- Electronic writing pads or pen-input devices
- Calculators built into cellular phones or other electronic communication devices
- Calculators with a typewriter keypad (QWERTY format)
- Calculators with programs or applications that cannot be removed or disabled (e.g., Polynomial Root-Finder and Simultaneous Equation Solver on TI-86)
- Calculators with built-in computer algebra systems (CAS), such as, but not limited to: Casio: Algebra fx 2.0, ClassPad 300, and all model numbers that begin with CFX-9970G. Texas Instruments: All model numbers that begin with TI-89 or TI-92 Hewlett-Packard: HP-48GII and all model numbers that begin with HP-40G or HP-49G

## Test Security and Validity

Using a calculator that does not meet the above requirements invalidates the test results and is a violation of test security and test validity. Any violation will be reported to the State Superintendent and may result in revocation of teaching and/or administrative certificates.

## College Readiness (from pg. 1)

describing student achievement over time from grade to grade. With this tool, educators can track a student's progress in acquiring particular skills in English, math, reading, and science reasoning, and more importantly, identify specific learning experiences from which students might benefit.

While the College Readiness Standards describe the skills students likely possess based upon their EPAS test scores, ACT's College Readiness Benchmark scores are early indicators of likely college success based upon those same scores. This allows educators (as well as students and parents) the opportunity to see if students are "on track" in their academic preparation to be college ready.

ACT's College Readiness Benchmark Scores are based upon the subsequent college performance of years of ACT test takers.

By comparing student performance in college

with their ACT scores, researchers have determined median test scores for each ACT subtest that equate to success\*

\* Success is defined as a 50% or higher probability of earning a B or higher in the corresponding college course or courses, and a 75% probability of earning a C.

The EXPLORE and PLAN Benchmark Scores are indicative of probable readiness for college-level work by the time the student graduates from high school. Used together, the CRS and the

College Readiness Benchmark Scores				
Subject Test	EXPLORE Test Score		PLAN Test Score	ACT Test Score
	Grade 8	Grade 9		
English	13	14	15	18
Mathematics	17	18	19	22
Reading	15	16	17	21
Science	20	20	21	24

College Readiness Benchmark Scores provide an effective means for communicating college readiness expectations to middle and high schools and for measuring progress toward them.

## So how do Putnam City students perform?

In 2008-09, the mean composite 8th grade EXPLORE score was 14.1 (nationally it was 14.9).

The 10th grade PLAN composite score was 16.5 (nationally it was 17.5). Interestingly enough, these same students scored a composite score of 14.1 when they took the EXPLORE as 8th graders.

The ACT composite for '09 graduating seniors was 21.0 (nationally it was 21.1). As 10th graders, these students had a composite PLAN score of 16.9.

So what does this tell us? By itself, not much. We need more information before we can look at ways to help our students achieve their dreams by helping them become college and career ready. Fortunately we don't have to look far to find help. EPAS provides a treasure-trove of information that can provide the ways and means to improve our instructional practice and programs. In this series of *reView* articles we will look at that information and what it means for English, math, reading, and science.

### CIA Director - Dr. Joe Pierce (from pg. 1)

"Then why not 55?" she asks. "Why any grades at all, Father? Why don't we close the school and let them run wild?"

After a moment's reflection, Father O'Malley replies, "Maybe. Be better than breaking their hearts."

It's a tense stand-off, and Sister Mary Benedict finally says that if she is ordered to change the grade, she will do so, but she won't change the cutoff score because that would mean lowering the school's standards. Her greatest fear seems to be that students will lose their motivation without the carrot and stick of grades. Sister Mary Benedict is not without compassion and doesn't want to hurt Patsy, but she's willing to break the occasional student's heart to keep the system running.

This conflict between standards and motivation on the one hand and compassion on the other is still with us today, says Juarez, and she wonders, "Is there an approach to student evaluation that would satisfy both the Father O'Malleys and the Sister Mary Benedicts among us? Are educators condemned to an eternal impasse over grading?"

Seeking an answer, Juarez does some research, tracing the use of grades back to Yale University in the late 1700s; students were rank-ordered according to their performance, with professors using Latin terms like *optimi*, *inferiores*, and *peiores* to praise students who did well and shame those who did poorly. Subsequently, some educators likened grades to a paycheck – necessary to get students to slog through meaningless, tedious schoolwork. Grades were part of life, argued others. Without the possibility of failure, success lost its meaning; grades, though they sometimes had pernicious effects, were needed to keep students' noses to the grindstone and maintain standards. Over the years, others pushed back, arguing that failure never motivates and students who get low marks will conclude that they are stupid and quit trying. Grades can do more than break students' hearts, they said; they can permanently close the doors of opportunity.

Juarez finally found what she believes is the solution to this long-running debate. In the 1920s, Winnetka (IL) school superintendent Carleton Washburne said that it made no sense to give all students the same assignments and the same amount of time and then award grades from a uniform scale. Instead of trying to make the child fit the school, he said, schools should adjust to support the child. He believed that assessments should be used as diagnostic tools to discover how to help each student succeed. Washburne insisted that teachers spell out exactly what they expected students to master, make the work as intrinsically interesting as possible, use diagnostic tests to find out where each child needed help, and use a "goal record book" to keep track of progress toward mastery. "Instead of giving grades," he said, "we give dates – the dates on which the children have completed each test in each subject."

Under Washburne's system, explains Juarez, "A child may not pass a test, but that fact does not translate into a failing grade; rather, the test score indicates that more needs to be done to meet the standard... We measure and test in order to know how to help." This approach is similar to the way doctors chart their patients' vital signs, she says: "Medical doctors never halt their attempts to help patients improve, and charts are used to determine what progress patients have made and what remains to be done to ensure their recovery. Doctors do not 'grade' patients and abandon those

who are failing to make progress relative to other patients. Likewise, in Washburne's plan, teachers do not 'grade' learners but continue to help them until learning occurs."

How did Washburne's Winnetka plan affect academic achievement? Student achievement compared favorably with that of districts using traditional grading. Juarez believes that this approach is a better choice than Father O'Malley's standards-bending desire to help a struggling student and Sister Mary Benedict's rigid devotion to protocol. And actually, that was the outcome of the subplot in *The Bells of St. Mary's*. In fact, after brooding over Father O'Malley's request, Sister Mary Benedict did something she'd never done before: she tested Patsy again, found that the girl had indeed mastered the material, and allowed her to graduate with her class. "The dispute between Sister Mary Benedict and Father O'Malley had a happy resolution," concludes Juarez, "because both believed that the learner and learning – not grades – were what mattered. They agreed that the school's purpose was to 'give children a helping hand' – and they came to realize that a helping hand could be extended without breaking hearts or casting aside standards."

*As published in The Marshall Memo #296. Summarization from "Why Any Grades at All, Father?" by Tina Juarez in Phi Delta Kappan, January 1996 (Vol. 77, #5, p. 374-377). www.marhsallmemo.com*

### ESL/ELL - Dr. Jean Laine'

## Celebrating Academic Achievement

We would like to acknowledge the academic achievement of twelve teachers from the district, who completed their master's degree in Teaching English as a Second Language (TESL) at the University of Central Oklahoma. These teachers are now prepared to support culturally and linguistically diverse students in the mainstream classroom. Considering the rapid growth of the number of English language learners (ELLs), teachers are faced with new professional training needs in the area of sheltered instruction. Sheltered instruction is defined as instructional approaches designed to facilitate ELLs' comprehension in the content areas while they are striving to acquire English skills for basic communication and academic knowledge for success in the mainstream classroom. Below are our new graduates.

Crawford, Laura Gay  
Douglas, Cathy D.  
Elliott, Shannon Kay  
Estes, Joyce Lynette  
Groves, Tracy  
Hidalgo, Gloria  
Hill, Lori A.  
Martinez, Merry Allen  
Morton, Stacy A.  
Stewart, Brian Kevin  
Tarlton, Pamel Gail  
Williams, Amy



*Pictured above is ESL/ELL Coordinator Jean Laine' who was recently awarded his Ph.D.*

# Constitution Day

## 9/17/2009

Constitution Day commemorates the formation and signing of the U.S.

Constitution by thirty-nine brave men on Sept. 17, 1787, recognizing all who, by coming of age or naturalization, have become citizens. A mandate in the 2004 congressional spending bill requires every school and college that receives federal money to teach about the Constitution on Sept. 17, the day the Constitution was adopted. U.S. Department of Education guidelines <http://r.smartbrief.com/resp/jfqjrUvuDJunetLt> allow schools to plan their own programs.

On Thursday, September 17, 2009, the country pauses to commemorate the drafting of the Constitution – four pages that created a new government more than 200 years ago – a covenant that continues to shape profoundly the lives of each one of us to this day. The U.S. Constitution is the oldest written constitution of any nation on earth. Constitution Day is intended to celebrate not only the birthday of our government, but the ideas that make us Americans. The ideas on which America was founded – commitments to the rule of law, limited government and the ideals of liberty, equality, and justice, are embodied in the Constitution.

One thing that different schools have done in the past is to make that day red, white, and blue day for the kids and if you have a rise and shine or a morning assembly that day – you can incorporate Constitution Day into that event. The day is also called citizenship day and this is a great time to talk with your students about how you become a citizen and they could look at the constitutional requirements for people who want to become citizens. There are also sample citizenship tests that your students can take. (This usually makes them thankful they were born here and do not have to take a test to become a citizen.) Schoolhouse Rock has a great video on the Preamble that you can use. I have posted a link on .PC to access resources – the following are a few more:

State Department of Oklahoma:  
<http://www.sde.state.ok.us/Curriculum/CurriculumDiv/SocialStudies/constitution.html>

Curriculum reView September 2009

Constitution Center <http://constitutioncenter.org/ConstitutionDay>

Plan for reading the constitution at your school

<http://www.constitutioncenter.org/Files/America+Reads+2007.pdf>

Center for Civic Education lesson plans [http://www.civiced.org/index.php?page=lesson\\_plans](http://www.civiced.org/index.php?page=lesson_plans)

information about the signers, simulation and lesson plans  
<http://www.archives.gov/education/lessons/constitution-day>

free copies , quiz, quotes, puzzles – the constitution in other languages  
<http://www.constitutionday.cc/postercontest>

10 facts about the constitution [http://constitutioncenter.org/ConstitutionDay/Resource\\_Details.aspx?code=900T33H15154](http://constitutioncenter.org/ConstitutionDay/Resource_Details.aspx?code=900T33H15154)

PEAK - Elise Kauffman

## Key Principles of a Differentiated Classroom

1. The teacher is clear about what matters in subject matter.
2. The teacher understands, appreciates, and builds upon student differences.
3. Assessment and instruction are inseparable.
4. The teacher adjusts content, process, and product in response to student readiness, interests, and learning profile.
5. All students participate in respectful work.
6. Students and teachers are collaborators in learning.
7. Goals of a differentiated classroom are maximum growth and individual success.
8. Flexibility is the hallmark of a differentiated classroom.

CareerTech- Melinda Porterfield

## WHAT IS OKCIS?

The Oklahoma Career Information System (OKCIS) is a website where students can explore career, educational, and work opportunities. There are several tools to assist the student in determining the occupational direction that might best suit them. They can then research occupations, colleges and universities, and financial aid. They can also plan their course of study, generate a resume, and complete a fun exercise that gives them a “reality check” into the expenses of the real world. There are also many other features that will aide students to become better prepared for entering the future.

Each school has their own login code, so check with the counselor in your building to help develop your own login

Secondary Math - Tammy Gambrell

This school year has a lot of exciting happenings in the math arena. One thing that has changed is Oklahoma PASS. It is better than ever!!! You can find New PASS, PASS side by side links, item specs, new and old blueprints on our Secondary Math Community on .PC. If you have not joined, please do so. It is imperative that we teach new and old PASS this year. We do not want any gaps in any grade level. We are still testing old PASS this year, but if we don't teach new PASS along with it, we could miss something.

Another important math happening is the adoption of new textbooks. We will start this journey soon. Please look for new information on this matter on our community and through email.

Last, but definitely not the least is the new OCCT/CRT cut scores. The bar was raised again AND WE WILL RISE ALSO!!

# Curriculum Specialist / Department Chair / Vertical Team Leader Meeting Schedule 2009-2010

High School Department Chair / Curriculum Specialist Meeting Dates 4:30 PM. All meetings at PC Center, second floor Meeting Rooms A, B, and C. Parking available in East lot, building entry through PC Campus Police entrance on South side of PC Center.

September 14  
October 12  
November 9  
December 14  
January 11  
February 8  
March 8  
April 12  
May 10

Middle School Vertical Leader / Curriculum Specialist Meeting Dates 3:15 PM. All meetings at PC Center, second floor Meeting Rooms A, B, and C. Parking available in North lot, building entry through Enrollment Center entrance.

August 31  
October 5  
November 2  
December 7  
January 4  
February 1  
March 1  
April 5  
May 3

Elementary Vertical Leader / Curriculum Specialist Meeting Dates 3:45 PM. All meetings at PC Center, second floor Meeting Rooms A, B, and C. Parking available in North lot, building entry through Enrollment Center entrance.

September 21  
October 19  
November 16  
December (no Meeting – Break begins)  
January 25  
February 15  
March (no Meeting – Break begins)  
April 19

Educators and cognitive scientists agree that the ability to recall basic math facts fluently is necessary for students to attain higher-order math skills. Grover Whitehurst, the Director of the Institute for Educational Sciences (IES), noted this research during the launch of the federal Math Summit in 2003: “Cognitive psychologists have discovered that humans have fixed limits on the attention and memory that can be used to solve problems. One way around these limits is to have certain components of a task become so routine and over-learned that they become automatic.” Whitehurst, 2003)

The implication for mathematics is that some of the sub-processes, particularly basic facts, need to be developed to the point that they are done automatically. If this fluent retrieval does not develop then the development of higher-order mathematics skills — such as multiple-digit addition and subtraction, long division, and fractions — may be severely impaired. Indeed, studies have found that lack of math fact retrieval can impede participation in math class discussions, successful mathematics problem-solving, and even the development of everyday life skills. And rapid math-fact retrieval has been shown to be a strong predictor of performance on mathematics achievement tests.

If a student constantly has to compute the answers to basic facts, less of that student’s thinking capacity can be devoted to higher level concepts than a student who can effortlessly recall the answers to basic facts. For example, a child who is performing multiple-digit division must monitor constantly where he is in that procedure. If the child must use primitive counting strategies to subtract or multiply during the division process, the attention and memory resources devoted to these procedures reduce the student’s ability to monitor and attend to the larger division problem. The result is that the student often fails to grasp the concepts involved in multiple-digit division.

Recent research in cognitive science, using functional magnetic resonance imaging (fMRI), has revealed the actual shift in brain activation patterns as untrained math facts are learned (Delazer et al., 2003). As predicted by Dehaene (1997, 1999, 2003), instruction and practice cause math fact processing to move from a quantitative area of the brain to one related to automatic retrieval. Delazer and her colleagues suggest that this shift aids the solving of complex computations that require “the selection of an appropriate resolution algorithm, retrieval of intermediate results, storage and updating in working memory” by substituting some of the intermediate steps with automatic retrieval (Delazer et al., 2004).

The research cited above highlights the importance of math fact fluency; however, the computation capabilities of American students appear to be falling. Tom Loveless of the Brookings Institute has reviewed responses to select items on the National Assessment of Educational Progress (NAEP) and concluded that performance on basic arithmetic facts declined in the 1990s (Loveless, 2003). Clearly, students

need help to develop rapid, effortless, and errorless recall of basic math facts.

## Mathematical Knowledge

Mathematical knowledge of basic facts can be classified into two categories. The first category, called declarative knowledge, can be conceptualized as an interrelated network of relationships containing basic problems and their answers, such as  $4+7=11$  or  $11-4=7$ . The facts stored in this network have different “strengths” that determine how long it takes to retrieve an answer. The stronger the relationship, the more rapid and effortless is the retrieval process. For example, if the fact  $2+3=5$  has greater associative strength than the fact  $7+5=12$ , it will take less time to retrieve the answer 5 to the first of these two problems (Pellegrino & Goldman, 1987). Ideally, all the facts stored in this network are retrieved from memory quickly, effortlessly, and without error. However, this is often not the case with many students, particularly those with learning problems. These students, for a variety of reasons, have not established a declarative knowledge network, and instead of retrieving facts from memory, they rely on a second category of mathematics knowledge, called procedural knowledge.

Procedural knowledge refers to methods that can be used to derive answers for problems lacking pre-stored answers. For example, in the problem  $6+8$ , a student might use a common “counting-on” strategy in which the larger of the two addends (8) is stated and the student increments the smaller addend on his or her fingers while saying 9, 10, 11, 12, 13, 14. Although correct answers can be obtained using procedural knowledge, these procedures are effortful, slow, error-prone, and they appear to interfere with learning and understanding higher-order concepts.

Underlying both declarative and procedural knowledge in mathematics is a type of understanding typically called number sense. While several definitions of number sense can be found (see, for instance, NCTM Standards 2004 or Case 1998), academics generally agree that it involves an awareness of number names, values, and relationships. Children with number sense recognize the relative differences in number quantity and how those differences can be represented. Number sense gives meaning both to an automatic math fact and to a computational procedure. Gersten and Chard roughly compare the importance of number sense in computation to the need for phonemic awareness in reading (Gersten & Chard, 1999). Both are critical building blocks. Garnett describes a typical hierarchy of procedures, or strategies, that rests upon number sense and leads eventually to automatic recall (Garnett, 1992). All elements—number sense, procedural knowledge, and declarative knowledge — must be developed together to achieve full math fact fluency.

*This article is excerpted from the Scholastic Research Foundation Paper Research Foundation & Evidence of Effectiveness for FASTT Math (PDF)*

# Some Ways to Celebrate National Day on Writing October 20, 2009

## Family Writing Tips from the National Council of Teachers of English Inbox:

October 20, the National Day on Writing (<http://www.ncte.org/dayonwriting>), is quickly approaching! Back-to-school time is the perfect opportunity to recruit families and students to participate and contribute to the National Gallery of Writing. Consider requesting a local gallery to specifically showcase your school community. The following resources from NCTE and ReadWriteThink.org demonstrate how to bridge in-school and at-home writing and give ideas for submissions to the National Gallery of Writing.

The “Qualities of Best Practice in Teaching Writing” handout describes writing instruction in school and shows how it relates to writing practices outside of the classroom and at home. Family members and others get an idea of what skills their students should have and how they can help in that learning.

The NCTE book *Family Message Journals: Teaching Writing through Family Involvement* (E) shares how two primary-grade teachers implement family message journals in their classrooms. Julie Wollman-Bonilla focuses on the journal entries of four representative students and their families; questions widespread assumptions about teaching writing; and identifies teachers’ and families’ roles in helping elementary students appropriate new genres, topics, and purposes for writing. ReadWriteThink.org has two lesson plans showing family message journals in practice. Some entries from these journals could be added to a local gallery in the National Gallery of Writing.

- Family Message Journals Teach Many Purposes for Writing (E)
- Launching Family Message Journals (E)

Family inquiry involve families in article “The Family Growth through ‘All from Voices from month-long project classroom in which countries, many of



an array of bicultural literature, and each researched, wrote, and compiled a many-faceted family tree notebook. This project relies heavily on family involvement and is the perfect invitation to host a family gathering at school. ReadWriteThink.org’s lesson Investigating Names to Explore Personal History and Cultural Traditions (M) explores a very similar activity. Any of the artifacts described in the article or lesson plan would be great additions to a local gallery in the National Gallery of Writing.

projects are a great way to school and writing. The Tree: Nurturing Language the Parts of Me” (M) the Middle describes a in an eighth-grade English students (from many them immigrants) read

Family writing projects have been shown to change the nature of classroom writing instruction and rejuvenate teachers. In “The Family Writing Project: Creating Space for Sustaining Teacher Identity” (M-S), the authors discuss their study of one such project in an urban school district. Using the concept of “third space,” they describe the influence of this family literacy program on teacher practice. The ReadWriteThink.org lesson plan Family Memoir: Getting Acquainted with Generations Before Us (S) invites students and family members to write in that third space. The memoirs that are written together would be great contributions to the National Gallery of Writing.

Our next issue will include some more ways to celebrate. You can also visit NCTE’s site at [www.ncte.org](http://www.ncte.org) NCTE invites us to join the thousands of writers whose submissions of all sorts -- stories, resolutions, odes, blogs, audio recordings, travel brochures, artwork, plays, testimony, websites -- will be visible to the world in The National Gallery of Writing on October 20, 2009.



### Upcoming Professional Development Opportunities

Sept. 3 4:15-6:15 Register on .PC  
PASS, What it is and how to use it!

Sept. 10 9:00-3:00 [www.ccosa.org](http://www.ccosa.org)  
Beginning Teachers' Classroom Management and School Law  
Clarion Meridian Convention Center \$60 includes lunch and materials

Sept. 16 9:00-3:00 [www.editok.com](http://www.editok.com)  
Mark McLeod-"Keys to Raising Student Achievement"  
Clarion Meridian Convention Center \$130 per person

Sept. 17 9:00-3:00 [www.ccosa.org](http://www.ccosa.org)  
Financial Survival Skills  
Metro Tech \$75 for CCOSA members

Sept. 19 9:00-3:00 [www.ccosa.org](http://www.ccosa.org)  
Aspiring Principals I  
SNU Campus \$55 CCOSA member or teacher of member

Sept. 23 9:00-3:00 [www.ccosa.org](http://www.ccosa.org)  
Transforming Schools: Creating a Culture of Continuous Improvement  
Clarion Meridian Convention Center \$75 for CCOSA members

Sept. 28 9:00-3:00 [www.editok.com](http://www.editok.com)  
Developing Number Sense K-5  
Teaching Math for Middle School 6-8  
Moore Norman Technology Center \$225 per person

Sept. 28 4:00-6:00 Register on .PC  
Parent Communication

Sept. 29 9:00-3:00 [www.editok.com](http://www.editok.com)  
Teaching Multiplication 2-5  
Teaching Algebraic Thinking 6-8  
Moore Norman Technology Center \$225 per person

Sept. 29, 30, Dec. 3, 4 9:00-3:00 [www.ccosa.org](http://www.ccosa.org)  
Leadership Development Process  
Putnam City Administration Bldg. \$125 for CCOSA members \$250 for non-members

Oct. 7 9:00-2:00 [www.ccosa.org](http://www.ccosa.org)  
Managing and Supervising School Activity Accounts  
Metro Tech \$75 for CCOSA members \$150 for non-members

Oct. 28 9:00-3:00 [www.editok.com](http://www.editok.com)  
Sixth Annual Heartland Effective Schools Conference  
Clarion Meridian Convention Center \$150 per person



*PC West Assistant Principal Melanie Pealor welcomes new staff to the 2009-10 edition of "PC Live!"*



*Superintendent Paul Hurst is interviewed during "PC Live!" on August 13<sup>th</sup>.*

*photos by Bob Melton*



*OSDE Science Director Jana Rowland speaks to Putnam City math and science teachers during the August 18<sup>th</sup> District Professional Development day.*



Have you joined a .pc  
Learning Community?  
[http://www.  
putnamcityschools.org/.pc](http://www.putnamcityschools.org/.pc)