

Upcoming Workshop Opportunities

For information about HCESC workshop opportunities, click on the green [LINK](#) above.



NOTE: When you click on the links in this newsletter, the window may pop up BEHIND your newsletter

In this issue:

- [Testing Tips and Resources](#)
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Contact Us by Email

[Gale Jorgensen](#)

[Christina Sherman](#)

Best wishes, Dana!

Changing the mathematics world in Louisiana

In January, our friend and colleague, Dana Mossor, moved to Louisiana. She is working for the Louisiana Department of Education focusing on their STEM initiative. Dana's passion and talent shine in everything she does. This newsletter exists because of Dana's vision to connect our math colleagues. We wish Dana the best!



It's Testing Time

Ohio Graduation Test begins March 14th
Ohio Achievement Assessment begins April 25th

*check with your district for specific dates



Summary of Ohio Mathematics Achievement Test Blueprints

Mathematics Achievement Test	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Ohio Graduation Test
Number of Items	40	40	40	39	39	38	38
Number of Points	52	52	52	50	50	46	46
Number of Multiple-Choice <small>(number of answer choices)</small>	32 <small>(three choices)</small>	32 <small>(four choices)</small>	32 <small>(four choices)</small>	32 <small>(four choices)</small>	32 <small>(four choices)</small>	32 <small>(four choices)</small>	32 <small>(four choices)</small>
Number of Short-Answer	6	6	6	5	5	5	5
Number of Extended-Response	2	2	2	2	2	1	1
Calculator Access?	No	No	No	Yes, permitted	Yes, permitted	Yes, permitted	Yes, provided

Find out more about [ODE's resources](#) for upcoming assessments

- Ruler Policy
- Protractor Policy
- Calculator Policy
- Reference Sheet
- Grade Level Blueprints



ODE's Statewide Testing Site - [Success Site](#)

Sometimes our students are intimidated by the open response questions. ODE's Success Site has student work samples to show students how much (or how little!) they have to do to earn points on open response questions.

Score Trainer

OAA follow these links:

- Understand Test Results
- Select Subject, Grade Level, and Year then "I'm Ready!"
- Learn How Written Responses Are Scored "Practice Scoring Responses"
- Select a Question then "I'm Ready"
- Next

OGT follow these links:

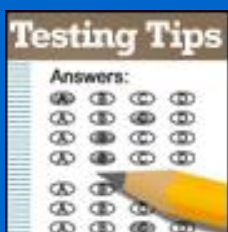
- Teacher Tools
- Score Constructed Response Questions
- Select Subject, Year, Standard and Question
- Next



NCTM's Testing Tips

- Continue teaching a rich, standards-based curriculum
- Become involved in writing state standards and developing state tests
- Help students become acquainted with the format and grading schemas of the test by using them in your classroom on a regular basis
- Review content every day
- Involve students in creating questions for the review
- Use a variety of approaches when teaching new content.
- Focus on solutions, not answers
- Celebrate improvement
- Be creative in how you are assessing understanding

Source: <http://www.nctm.org/resources/content.aspx?id=2147483737>





Think About It:

- When do you/should you give immediate feedback to students?

- When do you/should you delay feedback?

- How often do you/should you provide feedback to students?

Feedback as a Motivational Tool

If done well, feedback can offer two benefits: cognitive and motivational. Good feedback, given in a formative setting, can give students knowledge about where they are on their learning continuum and about what to do next - the cognitive factor. When students understand what they're doing and why, they can feel a sense of control over their own learning - the motivational factor.

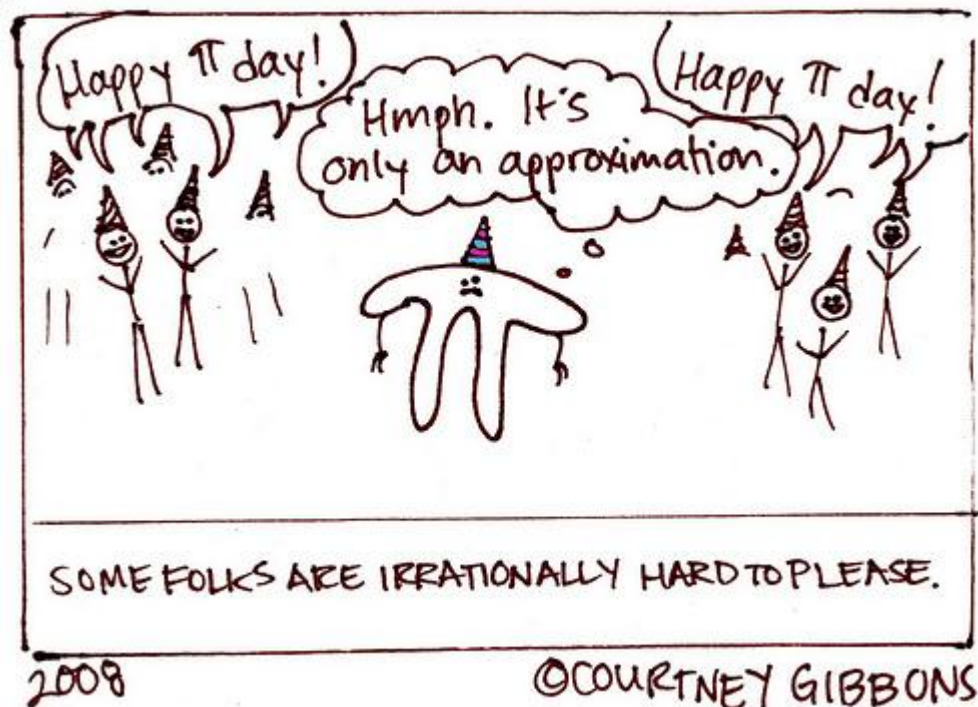
Feedback strategies can vary in timing (when it is given and how often it is given), in the amount (how many points to make at one time and the depth of those points), in the mode (oral, written or visual/demonstration), and in the audience (individual or group/class).

Ideas taken from *How to Give Effective Feedback to Your Students* by Susan Brookhart.

Five Ways to Motivate Students

1. **Praise** students in ways that reward effort, not ability.
2. **Model** how you want students to act. Model a positive outlook.
3. **Encourage** cooperation instead of competition.
4. **Teach** students how to set realistic, measurable, and attainable goals. Show them how to break long-term goals into smaller steps.
5. **Invite** students to take ownership of their class by encouraging input and feedback often.

Ideas taken from NCTM's Teaching Children Mathematics, February, 2011.



Brain Awareness
Week

March 14th–20th

Join The Dana
Foundation for
FREE

Pi Lesson Links

Grades preK-2: Sir Cumference and the First Round Table: A Math Adventure

Grade 3-6: Sir Cumference and the Great Knight of Angleland

Grade 5-6: Exploring $c/d = \pi$

Grade 6-8: Square Circles

Grades 6-8: Sir Cumference and the Sword in the Cone

Grades 8-10: Pi Line

Grades 8-12: Pizza Pi: Work Force



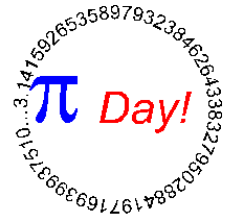
"I teach high school math. I sell a product to a market that doesn't want it but is forced by law to buy it."

Dan Meyer



How do you plan to celebrate Pi Day?

Check out articles, weblinks and more on [NCTM's website](#).



New at Ohio Resource Center

(Source: www.ohiorc.org)



Ratios & Proportions Learning Modules

Grades: 5-10

Support learning with engaging interactive problems, immediate feedback to answers, and real-world applications.



ORC-On

Grades: K-12

ORC-On e-publications focus on a specific event or topic, spotlighting excellent resources and ideas you can use in your classroom. These e-pubs are brief and to the point.

Dan Meyer: Math Class Needs a Makeover

Dan Meyer is exploring the way we teach teachers to teach kids.

Dan Meyer asks, "How can we design the ideal learning experience for students?" As a part-time Googler, a provocative [blogger](#) and a full-time high-school math teacher, his perspective on curriculum design, teacher education and teacher retention is informed by tech trends and online discourse as much as front-line experience with students.

Meyer has spun off his enlightening message -- that teachers "be less helpful" and push their students to formulate the steps to solve math problems -- into a nationwide tour-of-duty on the speaking circuit.

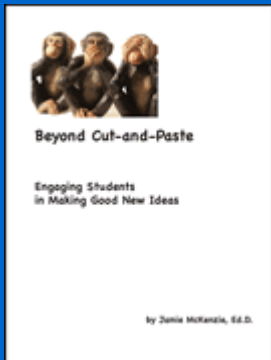
Watch his TED video:

http://www.ted.com/talks/lang/eng/dan_meyer_math_curriculum_makeover.html



Get the Math is a multimedia project about algebra in the real world. See how professionals working in fashion, videogame design, and music production use algebraic thinking. Then take on interactive challenges related to those careers.

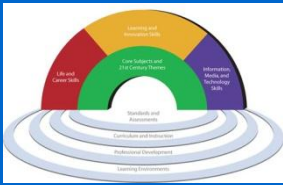
Gaining Attention in the Laptop Classroom



Have you used laptops in your classroom? How did that event work for you? In *Beyond Cut-and-Paste*, Jamie McKenzie warns that success with a room full of laptops depends on the attention the teacher pays to attitudes and norms. McKenzie believes the most important aspects of classroom culture (when it comes to laptop classrooms), are the following:

- **Attention** - The class must be able to shift from doing independent work to focusing on the teacher when instructions are being given or when engaging the class in a discussion. Insist that students give you eye contact when you're teaching.
- **Collaboration** - Introduce cooperative skills early in the year and give your class lots of practice with rubrics so they will know what effective behavior looks like. There will be times when students should work in teams to share ideas, interpret data and come up with solutions to problems or challenges you pose. Success requires students to cooperate with one another and to participate in active listening and in taking turns.
- **Independence** - Many students are used to passivity in the classroom, where teachers provide answers and require little of students. Build capacity in students to work steadily, alone or in teams, without much adult prodding or supervision. Scaffold skills required to perform tasks that have been assigned. Be clear that independence is required and will be assessed on a continuous basis.
- **Resourcefulness** - Help students break the habit of expecting to be spoon-fed. They must be engaged in creating answers rather than simply absorbing them. They must wrestle with complexity and struggle with difficult questions. Make it clear that resourcefulness is required and that it will also be assessed on a continuous basis.
- **Versatility** - Students will encounter false starts, frustration and difficulty. They must be encouraged to hang tough and develop the deftness to shift approaches until something works.
- **Responsibility** - Some students in a laptop classroom will test your expectations, and violate norms to see how much unacceptable behavior you will tolerate. Some may go to entertainment Web sites or engage in instant messaging when you are not looking. You must identify students who lack the personal commitment to use the materials for their intended purpose, and confer with them throughout the year, nudging them toward responsibility.
- **Persistence** - Students are used to getting quick answers like the ones they get when they use Google or Wikipedia. In order to do deep thinking and to develop problem solving skills, students will need to develop staying power.





21st Century Student Outcomes

Download the *Full Skills Definition Document* [here](#)

Click on "The Standards" to download your own PDF version.

21st Century Lesson Links:

Grades K-2: Money Counts: Number Sense/Computation

Grades 2-4: Tree-mendous Plots

Grades 5-8: Five's a Crowd

Grades 8-12: The Busing Problem

21st Century Skills -

Source: [Partnership for 21st Century Skills](#)



The focus for this newsletter's 21st century skill is Interpersonal and Self-directional Skills.

Interpersonal and Collaborative Skills: Working well on a team. Exercising respect for diversity of opinions.

Self-Direction: Monitoring one's own understanding and learning.

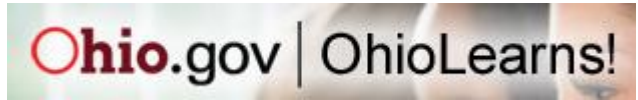
Accountability and Adaptability: Exercising personal responsibility and flexibility in various contexts. Setting and meeting high standards and goals for one's self and others.

Social Responsibility: Acting responsibly with the interests of the larger community in mind. Demonstrating ethical behavior in personal, workplace and community contexts.

4th grade	8th grade	12th grade
21st Century Tools: Calculators, newspapers, Internet, spreadsheet programs, presentation software, video equipment		
<ul style="list-style-type: none"> • Create an age-appropriate portfolio that includes a problem-solving situation related to real life. • Create a self-assessment for evaluating a variety of age-appropriate concepts, and provide a written reflection of their problem-solving process/thinking. • Establish ongoing communication with students from other communities or countries (via letters, email, or electronic bulletin boards) to share math projects. • Develop and execute a plan to use measurements and a graphing program to collect and record accurate and complete data about the community playgrounds. 	<ul style="list-style-type: none"> • Gather pertinent data from multiple sources to create a math game that reflects concepts from class and explain the game through appropriate channels (e.g., hand in manually; send as email attachment; or present orally). • Participate in national math competitions, where students are responsible for the quality of the data they submit. • Gather and critically analyze data from a variety of sources, and understand how and why data may not be consistent. • Incorporate math concepts into a community service project such as a recycling program - and research facts to determine how much of the recycled parts are used in various items. 	<ul style="list-style-type: none"> • Create a culminating project that demonstrates content knowledge and conceptual understanding in at least three distinct content areas; project should demonstrate problem-solving ability and ability to draw connections between mathematics content and real world settings. • Work on higher level mathematics that can be submitted to an agency outside the classroom (e.g., national contest, local newspaper, math bee). • Use online bulletin boards to engage in discussions of math concepts with people (students and/or experts) from around the world; demonstrate tolerance and respect for the points of view of others. • Identify a potential community issue that can be analyzed using a wide range of mathematical tools and develop an analysis plan. • Collect and analyze data, and develop a report presenting data and possible interventions to address local issues.



FREE AP courses through OhioLearns! Catalog



The catalog currently offers close to 50 AP courses from three course providers in addition to the almost 200 additional high school courses.

Through one-time funding provided by the Ohio General Assembly and eTech Ohio, if the student is a public school student; is pre-registered for the online AP course through Ohio Learns by a school official; the student will be issued an AP Course Fee Waiver authorization number.

Each student may only receive one fee waiver regardless whether the course is a semester or year-long course.

The fee waiver completely covers the course tuition, but does not cover textbooks, lab feeds or the AP exam in May

For more information, contact: Deb Segner, OhioLearns Manager, dsegner@oln.org 614/485-6737

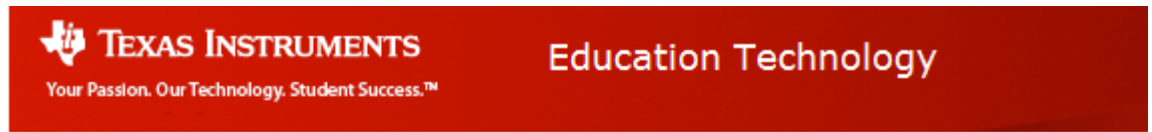


NEW! Texas Instruments lets you search by Common Core Standards

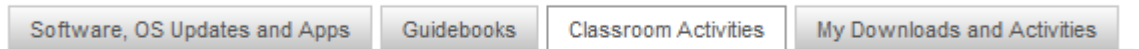
Search for TI-Nspire, TI-84 Plus, and TI-83 Plus classroom activities that are integrated and aligned with the new Common Core State Standards.

ODE's Model Curriculum for Common Core is going for Board Approval March 2011.

Stay up to date with [ODE's website](#).



Classroom Activities



Find Activities

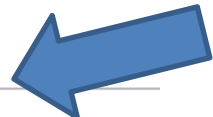
- Search By Subject
- Search by Keyword
- Search by Standards**
- Search by Textbook
- Search by TI Website
- Advanced Search

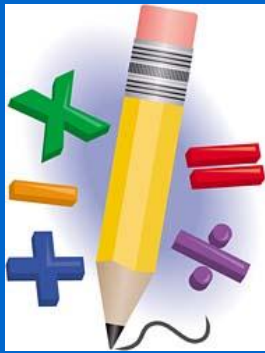
Standards Search

Standards

Grade

Subject





Math At A Glance

Professional Development Opportunities:



Get the latest information about the NCTM Conferences [here](#).

Did you know Cincinnati teachers from Norwood and Lakota will be presenting in Indianapolis at NCTM?

[NCTM E-workshops](#)

- Two 90-minute sessions deliver **3 hours of Standards-based content**
- **No travel** required
- **One low rate** for an entire group; \$179



OCTM 2011 Conference: Toledo, Ohio October 13-14, 2011

Other Math Links and information:

[Greater Cincinnati Council of Teachers of Mathematics](#)

[Ohio Council of Teachers of Mathematics](#)



Building Computational Fluency K-5 Workshop

Investigations Workshops is offering the **Building Computational Fluency K-5** workshop at Winton Woods High School this summer. This 5-day workshop focuses on the 2nd Edition of *Investigations in Number, Data, and Space*[®], primarily on the development of computation and number in the curriculum. Participants will:

- learn about the structural foundations of computational fluency
- examine their own and children's computational strategies
- look closely at the ways in which strategies for fluency develop
- focus on activities in the Investigations curriculum that support the development of computational fluency
- discuss the development of number and computation ideas at different grade levels
- use assessment to make instructional decisions that support the development of computational fluency

This workshop is designed for teachers who have either a) attended our Investigations in the Classroom workshop and are using Investigations as their primary curriculum, or b) have been using Investigations as their primary curriculum for at least two years.



Where:

Winton Woods High School
1231 West Kemper Road
Forest Park, OH. 45240

When:

July 13-17, 2011

Hours:

Mon-Thurs: 8 am. - 3 pm
Friday: 8 am - 1 pm

Cost:

\$600



2067 Massachusetts Avenue | Cambridge, MA 02140
phone: 617.873.9600 | fax: 617.873.9601
email: investigations_workshops@terc.edu
web: <http://investigations-workshops.terc.edu>

Are you getting information about additional learning opportunities for the math education community? If so, please send Gale or Christina the information so we can add it to our list!!