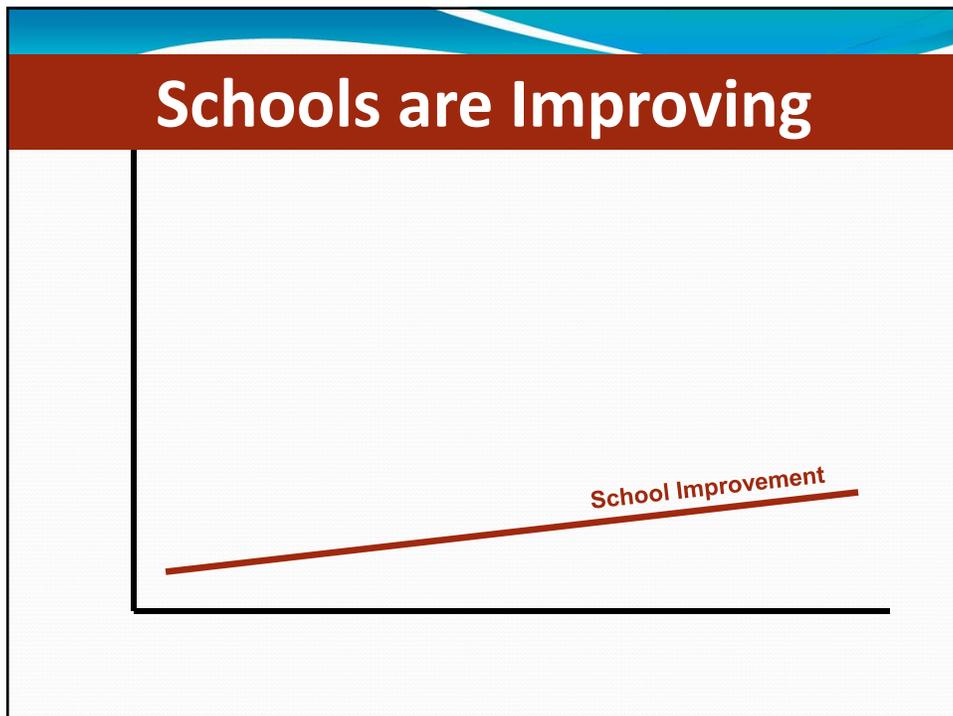


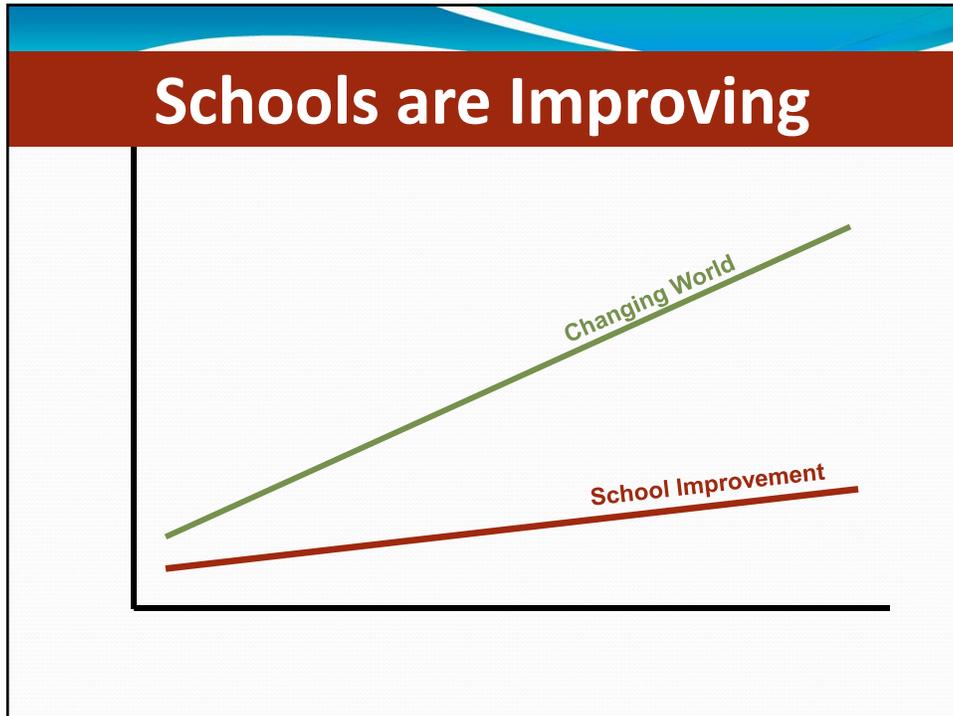


**Interpreting Missouri's
Learning Standards
(MLS)**

Missouri Department of Elementary
and Secondary Education

2013



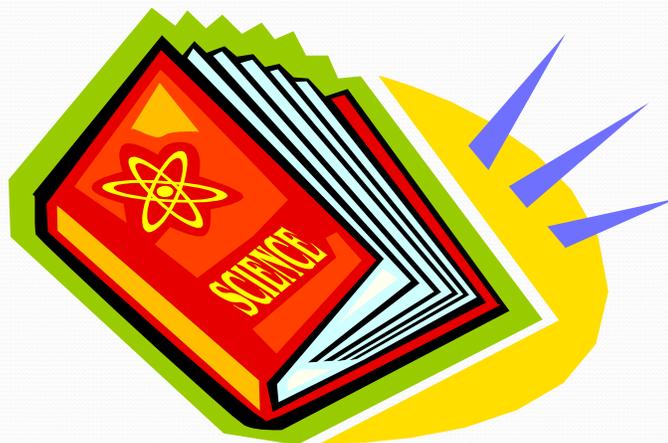


- ### The Missouri Learning Standards Require Three Large Shifts in ELA/Literacy
1. **Building knowledge** through **content-rich nonfiction**
 2. Reading, writing and speaking grounded in **evidence from text**, both literary and informational
 3. Regular practice with **complex text** and its **academic language**
- 4

What Should Districts Be Doing Right Now?

????????????

Emphasize **nonfiction**
text.



Examine the **text complexity**
of materials currently used
against the **text exemplars**
provided in **Appendix B** of the
Common Core State
Standards (CCSS) document.



COMMON CORE STATE STANDARDS FOR
**English Language Arts
&
Literacy in
History/Social Studies,
Science, and Technical Subjects**
Appendix B: Text Exemplars and
Sample Performance Tasks

Reading: Text Complexity

(CCSS 6-12, p. 57;
Appendix A, p. 5-7)

Levels of meaning
Structure
Language conventions and clarity

(Figure 2, Appendix A, p.6)

Readability measures
Other scores of complexity

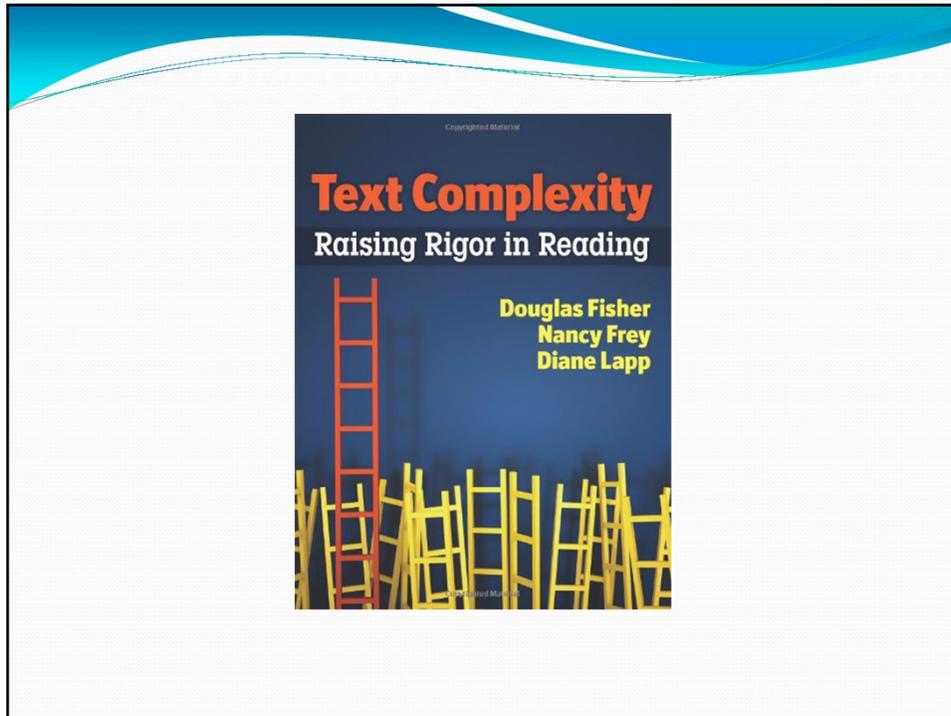
Lexiles, Accelerated Reader, Coh-Matrix

Variations: motivation, knowledge, experience
Variables: purpose/complexity of task; questions posed

(Figure 4, Appendix A, p. 10-12)

COMMON CORE STATE STANDARDS FOR
**English Language Arts
&
Literacy in
History/Social Studies,
Science, and Technical Subjects**

Appendix A:
Research Supporting
Key Elements of the Standards
Glossary of Key Terms



Begin discussions concerning how to increase students' ability to read text of **increasing complexity** at all levels.

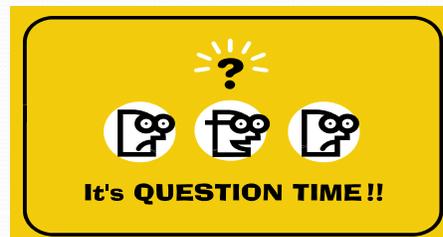


Teach “close”
reading. “Close”
reading means
reading for the
purpose of
uncovering
layers of
meaning and
allowing for deep
comprehension.



Adjusting the questions we ask students

- Text to text, text to self, and text to world questions guide students away from the text.
- Simple questions are answered too quickly.



Non-Examples and Examples

Not Text-Dependent

- In “Casey at the Bat,” Casey strikes out. Describe a time when you failed at something.
- In “Letter from a Birmingham Jail,” Dr. King discusses nonviolent protest. Discuss, in writing, a time when you wanted to fight against something that you felt was unfair.
- In “The Gettysburg Address” Lincoln says the nation is dedicated to the proposition that all men are created equal. Why is equality an important value to promote?

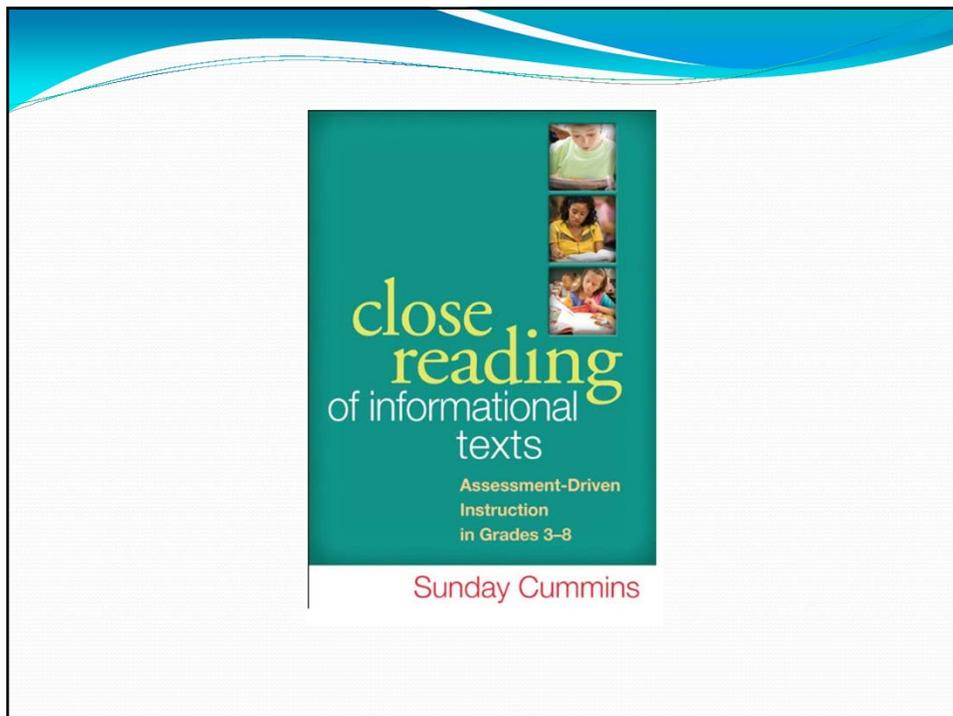
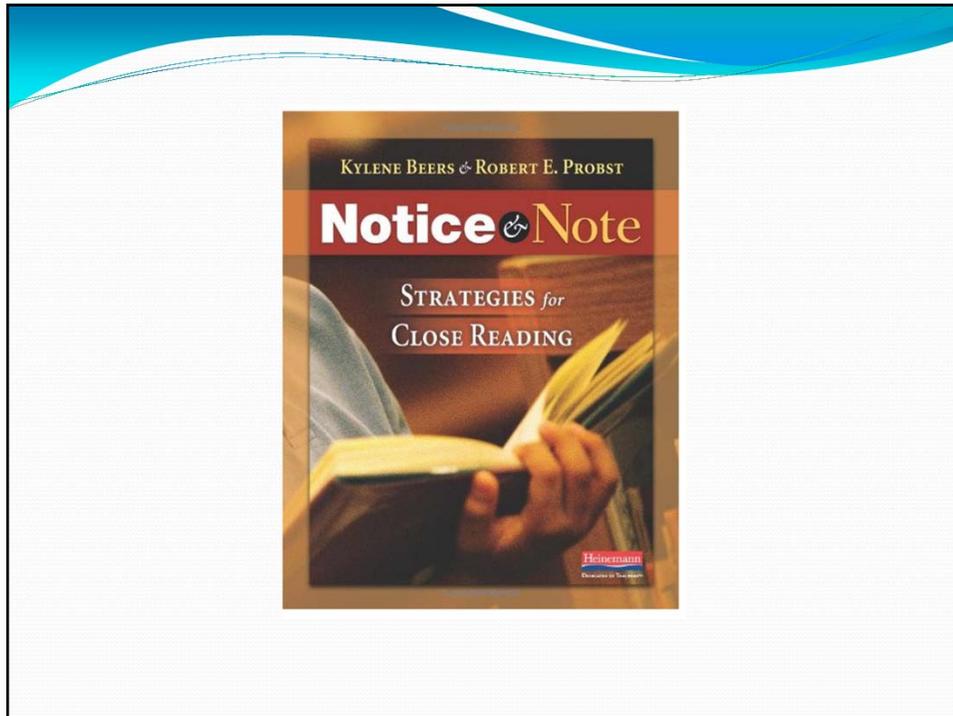
Text-Dependent

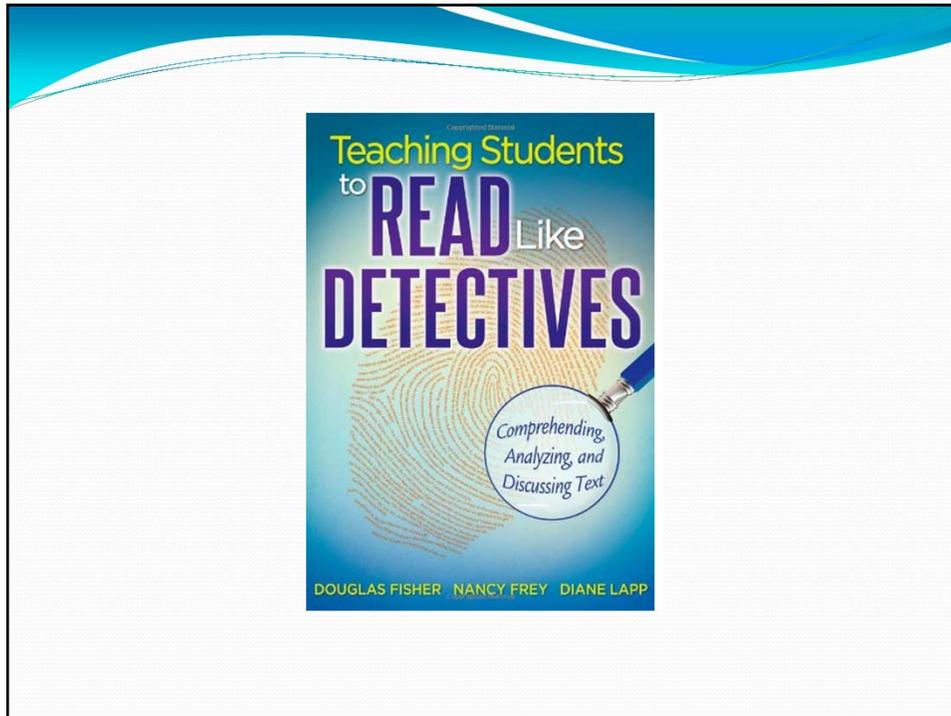
- What makes Casey’s experiences at bat humorous?
- What can you infer from King’s letter about the letter that he received?
- “The Gettysburg Address” mentions the year 1776. According to Lincoln’s speech, why is this year significant to the events described in the speech?

15

Creating Questions for Close Reading

1. Think about what you think is the most important learning to be drawn from the text.
 2. Determine the key ideas of the text.
 3. Locate the most powerful academic words in the text.
 4. Determine which standards are being addressed.
 5. Consider if other academic words should be taught.
 6. Locate the sections of the text that will present the greatest difficulty.
 7. Develop a culminating activity.
- Achievethecore.org

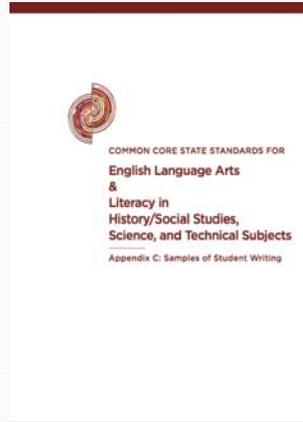




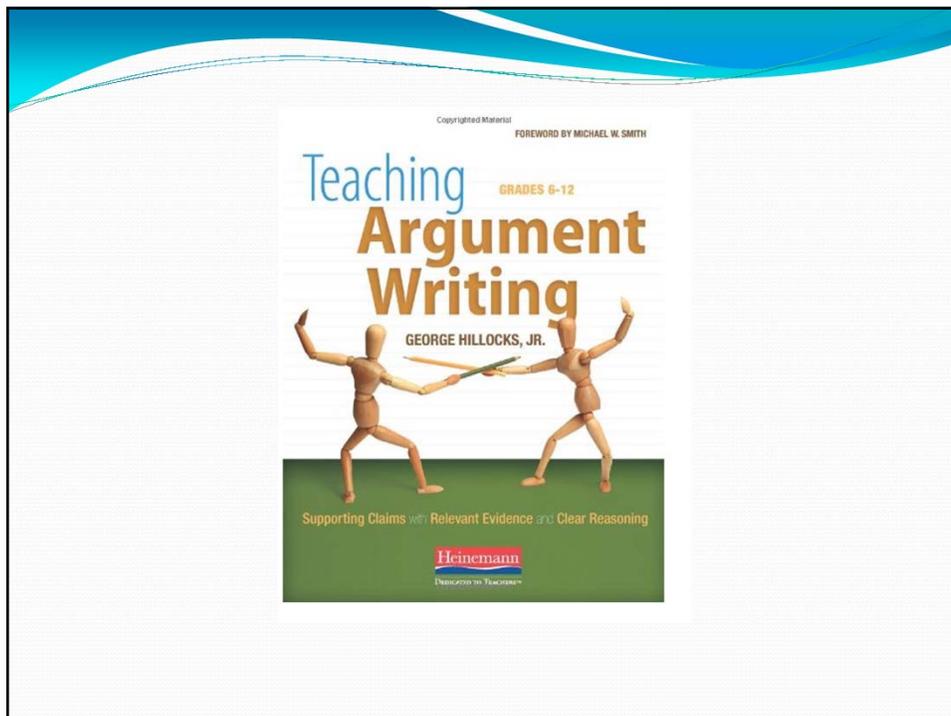
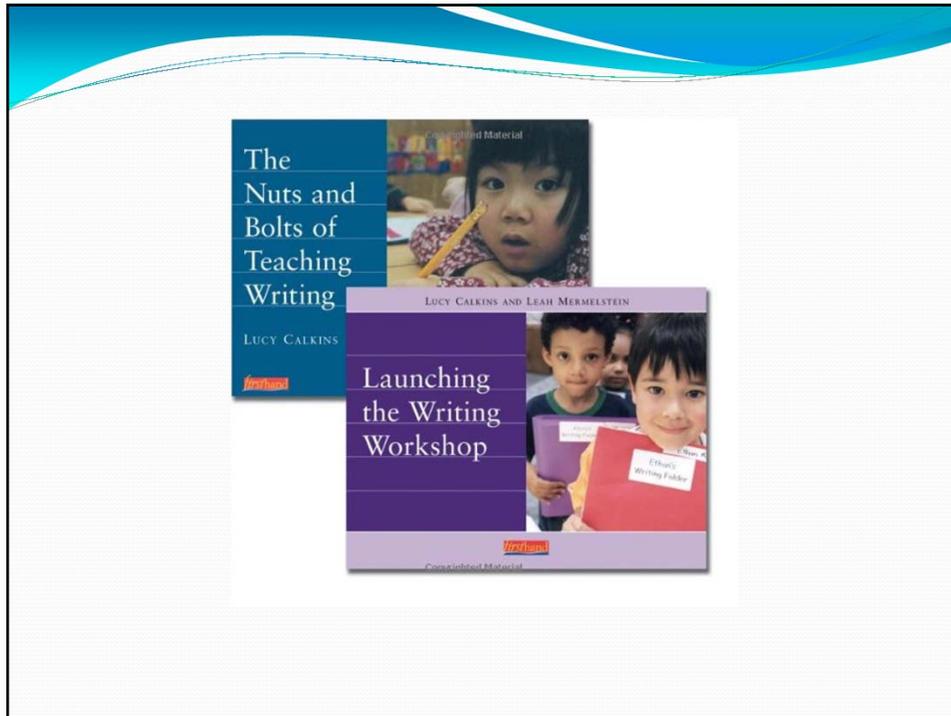
Emphasize writing instruction,
particularly
argumentative/opinion and
information/explanatory
writing at all levels.



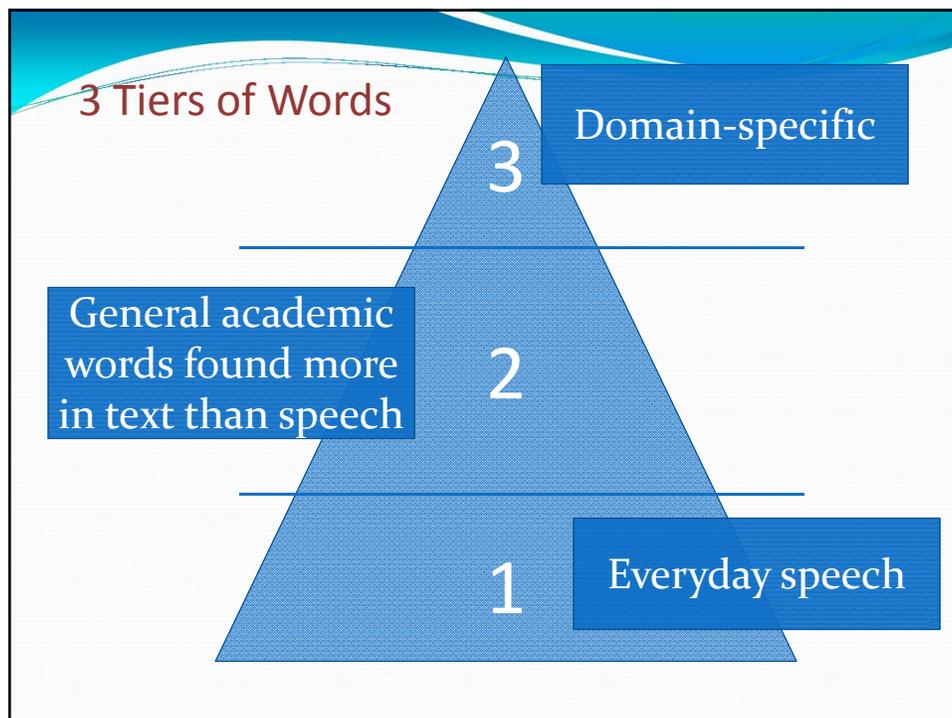
Examine the writing samples provided in **Appendix C** to become familiar with the expected proficiency levels at each grade level.



MY ^{Boy} friend AS do you want to be my FRIEND
the mas as the has if you will
be my FRIEND the has said No the
mas said a FRIEND the mas as the
said mas if you will be my FRIEND
the ratl mas said Yes the
dig a hole in the gap my
friend is the has



Intentionally teach
vocabulary in context,
particularly **general
academic** and **domain-
specific** vocabulary.



Academic Vocabulary

- Selected from texts students are reading
- Selected from the Standards (to a point)
 - Not “modal auxiliaries” (4th grade)
 - Not “pronoun-antecedent agreement” (3rd grade)
 - Not “distinguish” (K)
- Selected from grade-appropriate word lists
- Selected from SBAC Claims and Targets

12 Power Words—Maybe be used as definition cards or for a “matching game” when cut apart.

Analyze	Evaluate	Describe
<i>Break it down into parts. Tell about the parts.</i>	<i>Tell the good and the bad. Judge it.</i>	<i>Tell me about it. Give details about it. Paint a picture with words.</i>
Infer	Support	Explain
<i>Read between the lines. What is the hidden meaning?</i>	<i>Back up the information. Prove. Provide evidence</i>	<i>Teach me or show me. Tell the steps.</i>
Summarize	Compare	Contrast
<i>Tell the main idea. Tell the beginning, middle, and end</i>	<i>Tell all the ways they are the same.</i>	<i>Tell all the ways they are different.</i>
Predict	Trace	Formulate
<i>Hypothesize Make an educated (smart) guess</i>	<i>Outline. Explain the development. Follow (or explain) the path.</i>	<i>Create. Put together.</i>

Larry Bell's 12 Power Words for Testing (with minor adaptations)
<http://www.nkted.com/~lbell/pdfs/12powerwords.pdf>

43010

The following is a rough draft of a paragraph that a student is writing for the school newspaper about why there should be a longer school day. The draft needs more details to support the student's reasons for having a longer school day.

Why There Should Be a Longer School Day

Schools should have a longer school day for students. First, students could learn more about different subjects if the school day were longer. Also, students could get extra help from teachers. More hours in class each day would also mean more vacations scattered throughout the year!

Now look at the following daily schedule for a school that has switched to a longer school day.

8:00	Morning Announcements
8:20	Reading Language Arts
9:30	Foreign Language
10:30	Morning Recess
10:45	Mathematics
11:45	Lunch
12:45	History
1:45	Art or Music
2:15	Afternoon Recess
2:45	Science
3:30	Homework Preparation
3:45	After-School Tutoring or Sports

Revise the paragraph by adding details from the daily schedule that help support the reasons for having a longer school day.

Score Points	
2	The response: <ul style="list-style-type: none"> • provides appropriate and predominately specific details or evidence • uses appropriate word choices for the intended audience and purpose
1	The response: <ul style="list-style-type: none"> • provides mostly general details and evidence, but may include extraneous or loosely related details • has a limited and predictable vocabulary that may not be consistently appropriate for the intended audience and purpose
0	The response: <ul style="list-style-type: none"> • includes few supporting details that may be vague, repetitive, or incorrect or that may interfere with the meaning of the text • has an inappropriate vocabulary for the intended audience and purpose

Text Talk Robust Vocabulary Instruction for grades K-3

Text Talk Home
Program Overview
About Vocabulary
Research & Results
Program Authors
Try it Free
Funding Opportunities
Contact Text Talk

Order Now!
Buy in The Teacher Store
Download An Order Form
Find Your US Sales Executive
Download International Order Form (PDF)
Or Call 1-800-SCHOLASTIC

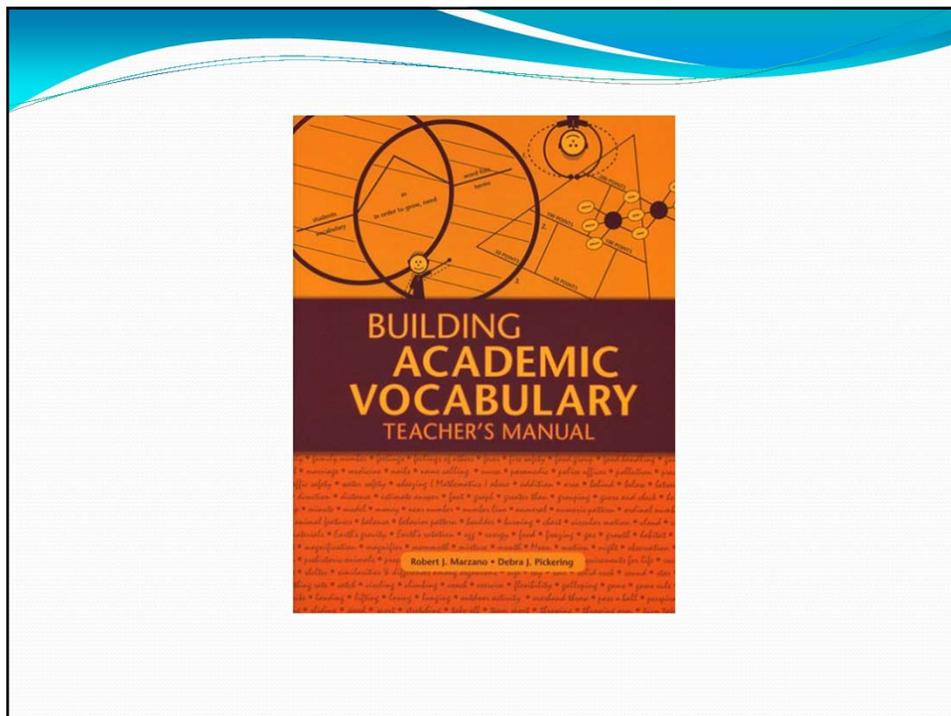
Program Authors
Isabel Beck, Ph.D.
University of Pittsburgh

Dr. Beck has been acknowledged for "bridging the gap between research and practice" and is a member of the Reading Hall of Fame, International Reading Association. Dr. Beck has collaborated with Dr. McKeown for over a decade to conduct scientifically based research on effective vocabulary instruction.

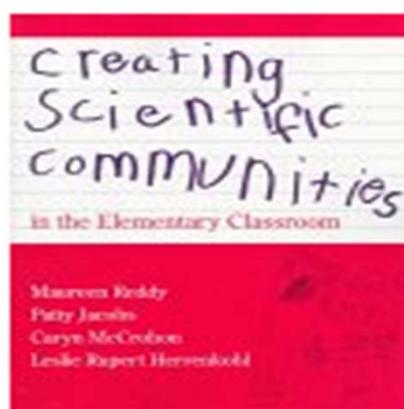
Margaret McKeown, Ph.D.
University of Pittsburgh

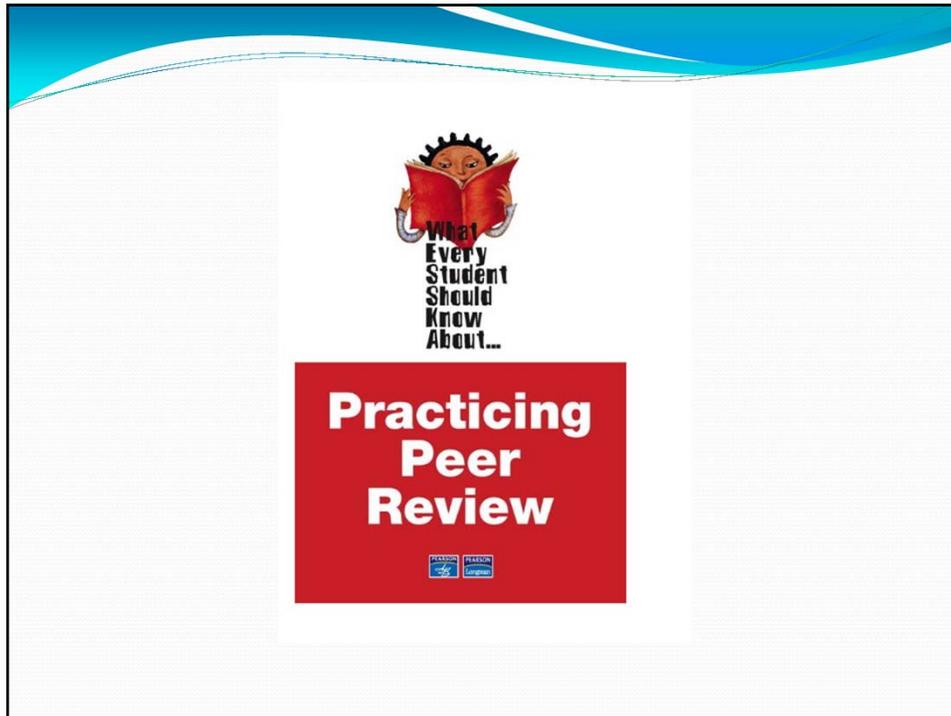
Dr. McKeown is a leading researcher examining the effect of vocabulary instruction on reading comprehension. She has received awards from the International Reading Association and the Spencer Foundation for applying theory and cognitive research to practice classroom challenges.

[Read their research!](#)



Emphasize **student collaboration** and peer feedback for presentations and projects.



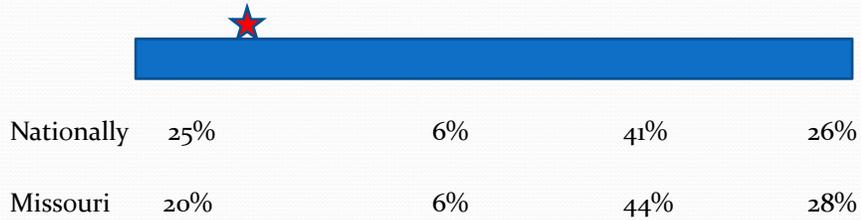


Incorporate **technology**
into **instruction,**
student learning, and
assessment.



Why the Need for Change

Which fraction has a value closest to $\frac{1}{2}$?



4th Grade, NAEP 2009
Released Item

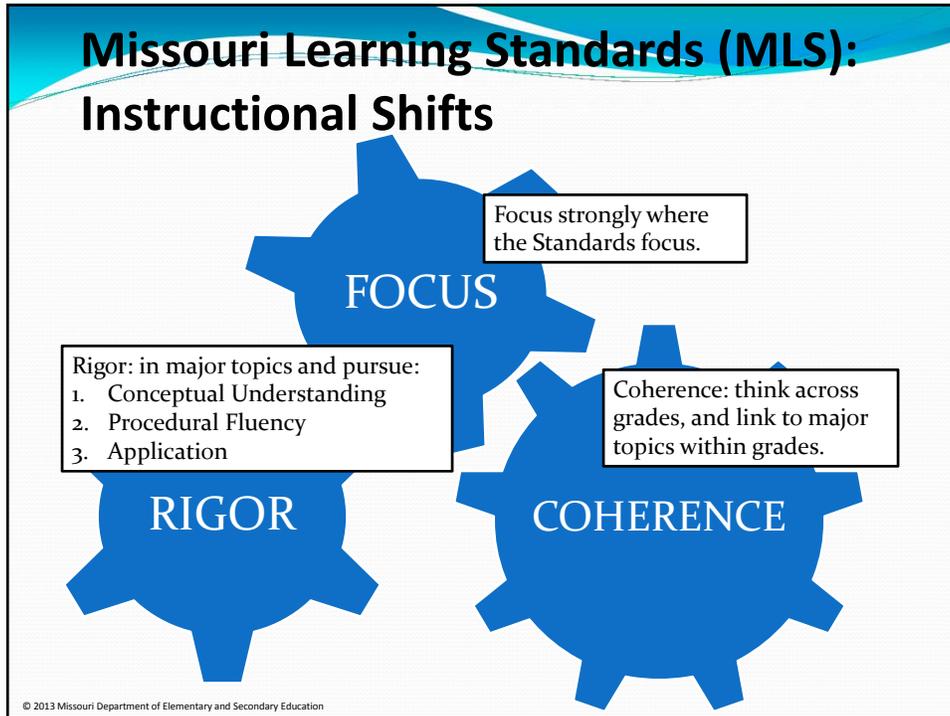
Why the Need for Change

[Student Video Library:](#)

Downloaded Videos:

[Number Sense #1](#)

[Number Sense #2](#)



Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

Where do you see issues, concerns, difficulties?

© 2013 Missouri Department of Elementary and Secondary Education

http://www.illustrativemathematics.org/pages/fractions_progression

<http://www.youtube.com/watch?v=mrxkW8ucAI&list=PLD7E4C7DE7CB3DzE6>

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

#1: Mathematically Proficient Students ...



Make sense of problems and persevere in solving them.

- Explain the meaning of the problem to themselves
- Look for entry points
- Analyze givens, constraints, relationships, goals
- Make conjectures about the solution
- Plan a solution pathway
- Consider analogous problems
- Try special cases and similar forms
- Monitor and evaluate progress, and change course if necessary
- Check their answer to problems using a different method
- Continually ask themselves “Does this make sense?”

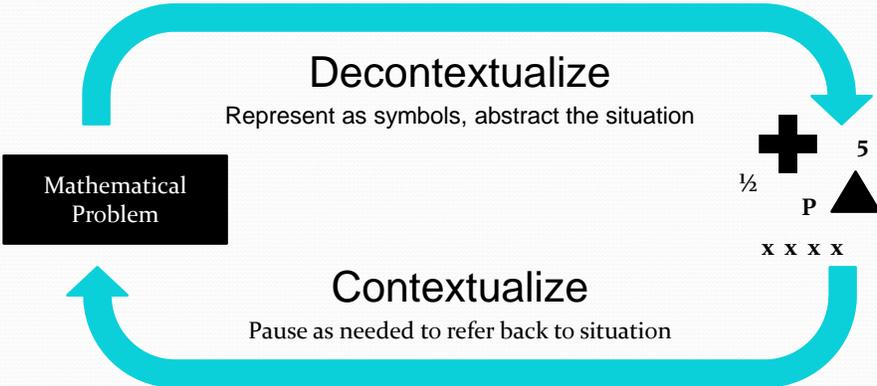


-- Ellen Whitesides (University of Arizona, Institute for Mathematics and Education) presentation to the CCSSO Mathematics SCASS, November 2011.

#2: Mathematically Proficient Students ...



Reason abstractly and quantitatively.



-- Ellen Whitesides (University of Arizona, Institute for Mathematics and Education) presentation to the CCSSO Mathematics SCASS, November 2011.

#3: Mathematically Proficient Students ...

Construct viable arguments and critique the reasoning of others.

Use assumptions, definitions, and previous results

Distinguish correct logic

Explain flaws

Ask clarifying questions

Make a conjecture

Build a logical progression of statements to explore the conjecture

Analyze situations by breaking them into cases

Recognize and use counter examples

Communicate conclusions

Justify conclusions

Respond to arguments

-- Ellen Whitesides (University of Arizona, Institute for Mathematics and Education) presentation to the CCSO Mathematics SCASS, November 2011.

#4: Mathematically Proficient Students ...

Model with mathematics.

Problems in everyday life...

...reasoned using mathematical methods

Problem

Formulate

Validate

Report

Compute

Interpret

Mathematically proficient students...

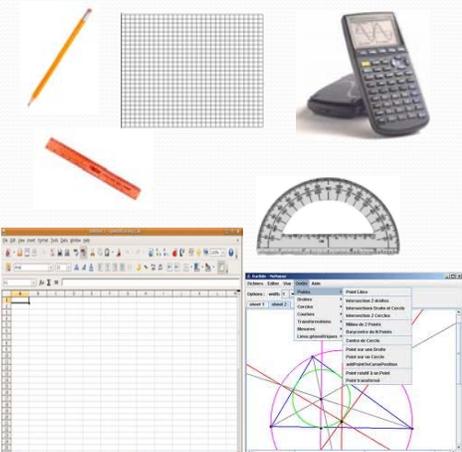
- make assumptions and approximations to simplify a situation, realizing these may need revision later
- interpret mathematical results in the context of the situation and reflect on whether they make sense

-- Ellen Whitesides (University of Arizona, Institute for Mathematics and Education) presentation to the CCSO Mathematics SCASS, November 2011.

#5: Mathematically Proficient Students ...



Use appropriate tools strategically.



- **Proficient students** are sufficiently familiar with appropriate tools to decide when each tool is helpful, knowing both the benefit and limitations
- detect possible errors
- identify relevant external mathematical resources, and use them to pose or solve problems

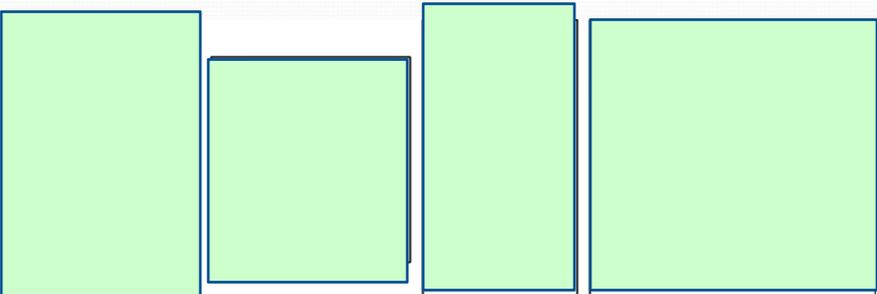
-- Ellen Whitesides (University of Arizona, Institute for Mathematics and Education) presentation to the CCSO Mathematics SCASS, November 2011.

#6: Mathematically Proficient Students ...



Attend to precision.

- communicate precisely to others; use clear definitions
- state the meaning of the symbols they use
- specify units of measurement
- label the axes to clarify correspondence with problem
- calculate accurately and efficiently
- Express answers with an appropriate degree of precision



Co viewtopic.php?f=7&t=66819

#7: Mathematically Proficient Students ...



Look for and make use of structure.

- look closely to discern a pattern or structure
- step back for an overview and shift perspective
- see complicated things as single objects, or as composed of several objects



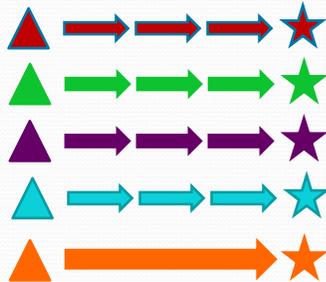
-- Ellen Whitesides (University of Arizona, Institute for Mathematics and Education) presentation to the CCSSO Mathematics SCASS, November 2011.

#8: Mathematically Proficient Students ...



Look for and express regularity in repeated reasoning.

- notice if calculations are repeated and look both for general methods and for shortcuts
- maintain oversight of the process while attending to the details, as they work to solve a problem
- continually evaluate the reasonableness of their intermediate results



-- Ellen Whitesides (University of Arizona, Institute for Mathematics and Education) presentation to the CCSSO Mathematics SCASS, November 2011.

Smarter Balanced Practice Test

Common Fraction Misconception

5

An equation is shown.

$$\frac{2}{3} \times \frac{\square}{\square} = n$$

Sarah claims that for any fraction multiplied by $\frac{2}{3}$, n will always be less than $\frac{2}{3}$.

A. Drag one number into each box to complete an equation that supports Sarah's claim.

B. Drag one number into each box to complete an equation that does not support Sarah's claim.

A. Supports Sarah's Claim

$$\frac{2}{3} \times \frac{\square}{\square} = n$$

B. Does not support Sarah's Claim

$$\frac{2}{3} \times \frac{\square}{\square} = n$$

<http://www.dese.mo.gov/divimprove/assess/sbac.html>

Smarter Balanced Assessment Consortium (SBAC)

<http://www.smarterbalanced.org/>

Home >> College & Career Readiness >> Assessment

Google Search

Advanced Search

- About Assessment
- No Child Left Behind (NCLB)
- Research and Technical Information
- Testing Information
- DESE Web Applications

Take the Practice Test

FIRST LOOK AT NEW ASSESSMENT

www.smarterbalanced.org/practice-test

How Do I Find? Missouri Assessments

- End-of-Course
- Grade-Level
- MAP-A
- ACCESS for ELLs
- Personal Finance
- NAEP

Assessment Consortia

- SMARTER Balanced Assessment Consortium
- Dynamic Learning Maps
- ASSETS ELL Consortium

Assessment Resources

- ACT
- Assessment Acronyms
- Assessment Testing Windows
- EOC ITester Admin
- Federal Status of Missouri Assessment Program
- GLEs/CLEs
- Missouri Learning Standards
- MSIP 3 High School Assessment Plan
- Quality Assurance
- SAT

"Practice Test Portal"

<https://k2zapps.dese.mo.gov/webapps/ModelCurriculum/findunit.aspx>

Missouri DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION

Model Curriculum [Model Curriculum Home](#) [Provide Feedback](#)

Find a Model Curriculum Unit

Select a Grade, Course Group, Course, and Find a Unit

Grade: 9-12 Course Group: No Selection Course: No Selection

Matching Units

Select	Grade	Course	Title
Select	9-12	Algebra 1	Relationships Between Quantities
Select	9-12	Algebra 1	Reasoning with Equations and Inequalities
Select	9-12	Algebra 1	Sequences and Their Related Functions
Select	9-12	Algebra 1	Solving Quadratic Equations 5
Select	9-12	Algebra 1	Exponential Functions
Select	9-12	Algebra 2	Radicals and Rationals
Select	9-12	Algebra 2	Inferences and Conclusions from Data
Select	9-12	Algebra 2	Polynomial Expressions and Functions
Select	9-12	Algebra 2	Reasoning with Exponential and Logarithmic Functions
Select	9-12	Algebra 2	Trigonometry
Select	9-12	American History	Between the Wars
Select	9-12	American History	Immigration
Select	9-12	American History	Imperialism
Select	9-12	American History	Industrialization
Select	9-12	American History	Reconstruction

12345

Email: modelcurriculum@dese.mo.gov Version: version 1.0.0

Current User: "Missouri public schools: the best choice. ...the best results!"

Accessibility | Privacy Policy | MO.gov | Governor Jay Nixon | State Agencies | Online Services

High School Math Courses

Possible Structure and Sequence of High School Math Courses

- Traditional
- Integrated
- Accelerated



COMMON CORE STATE STANDARDS FOR
Mathematics
Appendix A:
Designing High School
Mathematics Courses
Based on the Common
Core State Standards

Post Secondary Data

http://mcds.dese.mo.gov/guidedinquiry/Pages/Career-Education.aspx

The screenshot shows the Missouri Comprehensive Data System website. The main navigation bar includes 'HOME', 'MISSOURI DASHBOARD', 'DISTRICT INFO', 'QUICK FACTS', and 'GUIDED INQUIRY'. The 'GUIDED INQUIRY' section is expanded to show 'ADVANCED INQUIRY', 'TRAINING CENTER', and 'A-Z INDEX'. The 'A-Z INDEX' is highlighted with a red arrow. The 'College and Career' section is selected, showing a breadcrumb trail: 'Home > Guided Inquiry > College and Career'. The 'Feedback Reports' table is visible, with red arrows pointing to the following entries:

Type	Name	Description	Assista
	High School Graduate Feedback Report Table 1	College Remediation Rates	
	High School Graduate Feedback Report Table 2	1 st Year Completion	
	High School Graduate Feedback Report Table 3	Degree Completion	

Mathematics Specialist Grades 1-6 DESE Add-On Certification

Requirements:

1. Valid Missouri permanent or professional certification of license to teach.
2. Two years of successful mathematics teaching experience.
3. Must have a recommendation from an official from a university with an approved program (at least 24 hours beyond initial certification)
4. Must complete the content knowledge assessment with a qualifying score.

Approved Programs:

- Lindenwood University
- Consortium of Schools
 - Missouri State University
 - Northwest Missouri State University
 - Southeast Missouri State University
 - University of Central Missouri
 - University of Missouri-Columbia

Facts About CCSS

- State led effort by NGA and CCSSO
- More rigorous
- Data collection remains the same
- Balance of fiction and nonfiction

Basal Alignment Project

- Edmodo
- F4Q6NM
- **Basal Readers for which BAP offers free lesson revisions:**
- HMH Collections
- HMH Journeys
- HMH Medallion/Reading
- HMH Nation's Choice
- HMH StoryTown
- HMH Trophies
- MH Imagine It!
- MH Open Court
- MH Treasures
- MH Treasures (CA)
- Pearson Reading Street

2013

Anthology Alignment Project

- EdModo
- pkx4sp
- **Anthologies for which AAP offers free lesson revisions:**
- HMH Reading/Medallion
- Holt Elements of Literature
- Holt Literature
- Holt Literature and Language Arts
- MH Glencoe: The Reader's Choice
- ML Language of Literature
- ML Literature
- PH Literature
- PH Timeless Voices: Timeless Themes

2013

Textbook Review Instrument

Coming in late August, 2013

- “List of “Non-Negotiables”
- Balance of fiction and non-fiction
- Range of texts
- Complexity of texts
- Writing to sources
- Text-based answers and lessons
- Teaching all aspects of foundational reading

Model Curriculum Project

- Units available for ELA, Math, Social Studies
- Career and Technical Subjects coming soon
- Reflect shifts in CCSS
- Written by Missouri teachers
- Piloted in Missouri classrooms
- New units coming in late August

DESE Website Resources English Language Arts & Mathematics

[Implementation Plan](#)

[Certified Trainers](#)

[CCSS and GLEs/CLEs Crosswalk Alignment Analysis](#)

[Webinar Series](#)

[CCSS Awareness Session Presentations and Videos](#)

[Grade-Span Commonalities](#)

[Additional Resources](#)

Get Your Math Teachers Involved

- INTERFACE (Math & Science) Tan-Tar-A**
 - DESE Interface Conference A Grades K – 6 February 21 – 23, 2013
 - DESE Interface Conference B Grades 7 – 12 February 24 – 26, 2013
- Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST)**
 - Even Years K-6
 - Odd Years 7-12
- Missouri Council of Teachers of Mathematics (MCTM)**
 - Fall Conference December 6-7, 2012 Holiday Inn Expo Center
Columbia, MO
- MEGSL & KCATM**
- Math Contests**
- National Council of Teachers of Mathematics (NCTM)**

Diane Audsley

diane.audsley@deese.mo.gov

573-751-4898

Director of English Language Arts
Missouri Department of Elementary and Secondary Education

Jeremy Ellis

jeremy.ellis@deese.mo.gov

573-751-1395

Director of Mathematics
Missouri Department of Elementary and Secondary Education