



# ***WELCOME!***

## **Instructional Innovation: Disciplinary Literacy in Math and Science**

***June 18, 2013***

***Terrie Dew***





**Think and Ink:**

**What is Disciplinary  
Literacy?**

**Pair and  
Share**



# Why Disciplinary Literacy?





Fewer than 1 in 4 students meet all four  
College Readiness Benchmarks  
(English, Reading, Mathematics, and Science).

Only 53% meet the  
Benchmark Score in Reading .

*ACT, Inc., 2009*



The reading demands of college,  
workforce training programs, and  
citizenship have risen  
over the past fifty years.  
At the same time, K-12 texts have  
become less demanding.



National Governors Association  
Center for Best Practices & Council of  
Chief State School Officers, 2010

According to NAEP at the most advanced levels of reading, less than 10 percent of 17 year olds, regardless of race/ethnicity and socio economic status, are able to comprehend complex texts.

(Lee and Spratley, 2010)



Performance of the nation's 12<sup>th</sup> graders in reading has declined in comparison to 1992

(NAEP, 2005)

60% of 12<sup>th</sup> graders read at basic or below basic.

(NAEP, 2005)

42% of college students take remedial classes

(U.S. Department of Education, 2007)



“Students who experience reading difficulties in the early grades often suffer what has been called the ‘Matthew Effect’ (Stanovich, 1986), a gap between good and poor readers that widens through the grades.”

SEDL, 2000







# Why Disciplinary Literacy?





# Focus Question:

## *What is Disciplinary Literacy?*

As you read the selected text, highlight or underline words and phrases that help you answer the focus question.



# Strategy: Concept Mapping

Promotes the development of logical thinking by revealing connections that exist between words and concepts

# Concept Mapping

[View Video](#)



# Strategy: Concept Mapping

Use the words and phrases you selected from the text to create a concept map for disciplinary literacy



# What have we learned?



# Student Thinking and Dialogue

[View Video](#)



# Something to Tweet about

- Think about what you learned about disciplinary literacy today.
- Develop a tweet response that summarizes your thoughts in no more than 140 characters.
- Share your tweet globally with #IQMS!

**Think-Tweet-Share**





# FYI



**S<sup>2</sup>TEM Centers SC**  
Solutions in Science, Technology, Engineering & Mathematics Education

This presentation was created by the S<sup>2</sup>TEM Centers SC. It may be used for your own personal reflection and information. It may not be copied or in any way replicated without written permission.

Contact: [solutions@s2temsc.org](mailto:solutions@s2temsc.org)  
[www.s2temsc.org](http://www.s2temsc.org)

SOUTH CAROLINA'S COALITION FOR MATHEMATICS & SCIENCE

**SCCMS**

- ACHIEVEMENT BY DESIGN -