Common Core and Literacy Strategies: Mathematics

In Common Core and Literacy Strategies: Mathematics, you'll explore how the Common Core State Standards (CCSS) approach literacy in new and important ways. You will see a new emphasis on critical thinking skills in the areas of arithmetic, word problems, and other mathematical foundations. Through video examples, in-depth readings, and downloadable applications, you'll learn practical ways to put CCSS to work in your classroom.

Course Objectives

After completing this course, you should be able to

Module 1

- Define literacy and the Common Core State Standards and identify their importance.
- Understand the need for literacy skills in all content areas.
- Identify ways that classroom teachers can embrace the Common Core State Standards to improve 21st century literacy in their classrooms.

Module 2

- Understand what text complexity is and how it is determined.
- Articulate the significance of text complexity in developing 21st century literacy.
- Incorporate new text selection criteria and a focus on complex texts into your classroom.



Module 3

- Understand the connection between math reasoning and text comprehension.
- Use literacy strategies to improve mathematical reading as expressed in Common Core State Standards.

Module 4

- Explain how language, speaking, and listening skills contribute to strong math reasoning and problem-solving skills.
- Use literacy strategies in language, speaking, and listening to increase math reasoning.

Module 5

- Understand the role that reflection and writing play in improving mathematical skills.
- Incorporate literacy strategies in reflection and writing to increase mathematical skills.

Module 6

- Identify literacy problems for students who struggle with reading for a variety of reasons.
- Develop strategies that help special needs students develop literacy.





Course Syllabus

Module 1

What Is the Common Core and Why Do We Need It?

Module Welcome

- Media: Common Core 101
- Reading: Educational Leadership—Building on the Common Core
- Extend Your Learning: Lily Eskelsen
- Reading: Literacy and the Common Core State Standards
- Video: The Importance of Mathematical Practices
- Video: Literacy in Other Disciplines
- Reading: Educational Leadership—Reading through a Disciplinary Lens

Check for Understanding

Application: Observe Literacy in Another Content Area

Module Journal

Module 2

Focusing on Complex Texts

Module Welcome

- Video: Introduction to Text Complexity
- Reading: Understanding Text Complexity
- Reading: Educational Leadership—Too Dumb for Complex Texts

Check for Understanding 1

- Video: The Gettysburg Address—A Curricular Exemplar in Literacy
- Video: Save the Last Word for Me

Check for Understanding 2

Application: Choosing and Using Complex Texts

Module Journal







Module 3 **Literacy Strategies I: Text Features and Comprehension**

Module Welcome

- Reading: Fostering Deep Comprehension in the Math Classroom
- Reading: Educational Leadership—Summarizing to Comprehend
- Reading: Educational Leadership—Teaching Reading in Math and Science
- Video: Reading Strategies in the Classroom

Check for Understanding

Application: Matching Math Texts with Strategies

Module Journal

Module 4

Literacy Strategies II: Language, Speaking, and Listening Module Welcome

- Video: SHIFT 6: Academic Vocabulary
- Reading: Developing Language Skills in Mathematics
- Video: Speaking and Listening: The Key Role of Evidence
- Reading: Developing Speaking and Listening Skills in Mathematics
- Video: Brain Compatible Learning: Math Strategies
- Reading: *Educational Leadership*—Thinking is Literacy, Literacy **Thinking**

Check for Understanding

Application: Small-Group Problem-Solving

Module Journal





Module 5 **Literacy Strategies III: Writing and Reflection**

Module Welcome

- Reading: Promoting Critical Writing and Reflection
- Video: The Lesson Collection: Pre-Algebra Patterns and Formulas
- Reading: Educational Leadership—Advanced Math? Write!
- Video: RAFT Assignments

Check for Understanding

Application: Designing a Writing Assignment

Module Journal

Module 6

Literacy for Students Who Struggle in School

Module Welcome

- Video: Meeting Students' Needs
- Reading: Literacy for Students Who Struggle in School
- Reading: Educational Leadership—The Day Reading Became Play
- Reading: Educational Leadership—The Power of Strategies Instruction

Check for Understanding 1

- Video: SHIFT 3 Staircase of Complexity
- Reading: Educational Leadership—Teacher Skills to Support English Language Learners
- Video: Put Yourself in Their Shoes

Check for Understanding 2

Application: Designing Literacy Activities for Struggling Readers

Module Journal





Resources

- ASCD. (2000). The brain and early childhood: the act of learning [DVD]. Alexandria, VA: ASCD.
- ASCD. (2001). The lesson collection video series [DVD]. Alexandria, VA: ASCD.
- Barton, M. L., & Heidema, C. (2002). Teaching reading in mathematics: A supplement to Teaching Reading in the Content Areas: If Not Me, Then Who? 2nd Edition (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Bauerlein, M. (2011). Too dumb for complex texts? Educational Leadership, 68(5), pp. 28-32.
- Beers, S., and Howell L. (2003). Reading strategies in the content areas: An ASCD action tool. Alexandria, VA: ASCD.
- Common Core State Standards Initiative (Poster). Common core standards release [Video]. (2010). Retrieved from http://www.corestandards.org/presentations/watch/2
- Common Core State Standards Initiative. (2010). Common core state standards for english/language arts, literacy in history, social studies, science, and technical subjects. From http://www.corestandards.org/assets/CCSSI ELA%20Standards.pdf
- Common Core State Standards Initiative. (2010). Key points in English language arts. From http://www.corestandards.org/about-the-standards/key-points-in-englishlanguage-arts
- Conley, D. T. (2011). Building on the common core. Educational Leadership, 68(6), pp. 16–20.
- Daniels, E. (2010). The power of strategies instruction. Educational Leadership 67(6).
- Duke, N. K. (2004). The case for informational text. *Educational Leadership*, 61(6), pp. 40-44.
- EngageNY (Poster). Shift 3: Staircase of Complexity [Video]. (2011). Retrieved from
- EngageNY (Poster). Shift 6: Academic vocabulary [Video]. (2011). Retrieved from http://vimeo.com/27077248
- EngageNY (Poster). The Gettysburg address: a curricular exemplar in literacy [Video]. (2011). Retrieved from http://vimeo.com/27057291
- Fielding, L. G, & Pearson, P. D. (1994, February). Reading comprehension: What works. Educational Leadership, 51(5), pp. 62–68.
- Hansen, B. (2010). The day reading became play. Educational Leadership, 67(6), 78-80.
- Hawaii DOE Reform (Poster). Literacy in other disciplines [Video]. (2011). Retrieved from http://vimeo.com/29532330





- Hernandez, A., Kaplan, M., & Schwartz, R. (2006). For the sake of argument. Educational Leadership, 64(2), pp. 48-52. http://vimeo.com/27075601
- Juel C. and Deffes R.. (2004). Making words stick. Educational Leadership, 61 (6), pp. 30-34.
- Juel, C., Hebard, H., Haubner, J., & Moran, M. (2010). Reading through a disciplinary lens. Educational Leadership, 67(6), pp. 2-17.
- Marzano, R. J. (2010). Summarizing to comprehend. Educational Leadership, 67(6), pp. 83-84.
- McRel (2009). Using writing in mathematics to deepen student learning. Retrieved from http://www.mcrel.org/pdf/mathematics/0121TG writing in mathematics.pdf
- NYC DOE Promising Pract (Poster). Introduction to text complexity [Video]. (2011). Retrieved from http://vimeo.com/27251914
- Roberts, T., & Billings, L. (2008). Thinking is literacy, literacy thinking. *Educational* Leadership, 65(5), pp. 32-36.
- TheHuntInstitute (Poster). The English Language Arts Standards: Key Changes and Short, D., & Echevarria, J. (2004). Teacher skills to support english language learners. Educational Leadership, 62(4), 8–13.
- Their Evidence [Video]. (2011). Retrieved from http://www.youtube.com/user/TheHuntInstitute#p/u/4/JDzTOyxRGLI
- Yell, M. M. (2002). Putting gel pen to paper. Educational Leadership, 60(3), p. 63.

