

## 2.8 Integrates literacy and mathematics into content area instruction. (C: 4.4)

This standard addresses explicit teaching of skills relevant to the content area; 2.5 and 2.7 address incorporation of activities for literacy and/or mathematics in teaching content

		Basic (1.0 - 1.9)	Developing (2.0 - 2.9)	Proficient (3.0 - 3.9)	Advanced (4.0)
Reading	Relevant Skills	No evidence OR addresses a reading skill that is not relevant to the content area (or doesn't address relevance to students)	Plans instruction of reading skill <u>relevant</u> to the content area in at least one lesson but may not implement the plans; skills must be important the content area (e.g., in Social Studies this might be reading primary documents, political cartoons, or tables; in Science it might be reading laboratory reports or the organization of text in basals)	Plans and implements instruction that explicitly teaches a reading skill that is <u>relevant</u> to the content area	Meets criteria for "Proficient" and demonstrates fluency and consistency in incorporating a variety of <u>relevant</u> reading instruction within content lesson plans
	Complete Plans 5.01.9a,d,e	No evidence OR does not include all of the following in plans:	All of the following are included in the plan(s):  a. lesson plan sites Colorado reading standard, expectation, and outcome b. lesson objective is aligned with the Colorado standard, expectation, and outcome and CSAP assessment frameworks c. lesson activities and instruction that address/are aligned with the reading objective d. assessment is aligned with the reading objective	Plans and implements at least one lesson that demonstrates all of the following:	Meets criteria for "Proficient" and demonstrates fluency and consistency in incorporating reading instruction across many content lessons and different reading skills
Writing	Relevant Skills	No evidence OR addresses a writing skill that is not relevant to the content area (or doesn't address relevance to students)	Plans instruction of writing skill <u>relevant</u> to the content area in at least one lesson but may not implement the plans; skills must be important the content area (e.g., in Social Studies lesson this might be appropriate citations for a research report; in Science it might be a technical writing skill such as incorporating tables in reports using word processing or writing a lab report)	Plans and implements instruction that explicitly teaches a writing skill that is <u>relevant</u> to the content area	Meets criteria for "Proficient" and demonstrates fluency and consistency in incorporating a variety of <u>relevant</u> writing instruction within content lessons and different writing skills
	Complete Plans 5.01.9a,d,e	No evidence OR does not include all of the following in plans:	All of the following are included in at least one plan::  a. lesson plan sites Colorado writing standard, expectation, and outcome b. lesson objective is aligned with the Colorado standard, expectation, and outcome and CSAP assessment frameworks c. lesson activities and instruction that address/are aligned with the writing objective d. assessment is aligned with the writing objective	Plans and implements at least one lesson that demonstrates all of the following:	Meets criteria for "Proficient" and demonstrates fluency and consistency in incorporating reading instruction across many content lessons and different writing skills

<b>Mathematics</b>	<b>Relevant Skills</b>	No evidence OR addresses a math skill that is not relevant to the content area (or doesn't address relevance to students)	Plans instruction of writing skill <u>relevant</u> to the content area in at least one lesson but may not implement the plans; skills must be important the content area (e.g., in Social Studies lesson this might be reading histograms and line graphs of economic data such as supply and demand curves; in Science it might be calculating density of various compounds or calculating descriptive statistics for data gathered on temperature changes)	Plans and implements instruction that explicitly teaches a math skill that is <u>relevant</u> to the content area	Meets criteria for "Proficient" and demonstrates fluency and consistency in incorporating a variety of <u>relevant</u> techniques for writing instruction within content lessons and for different writing skills
	<b>Complete Plans</b>	No evidence OR does not include all of the following in plans:	All of the following are included in at least one plan:  a. lesson plan sites Colorado math standard, expectation, and outcome b. lesson objective is aligned with the Colorado standard, expectation, and outcome and CSAP assessment frameworks c. lesson activities and instruction that address/are aligned with the math objective d. assessment is aligned with the math objective	Plans and implements at least one lesson that demonstrates all of the following:	Meets criteria for "Proficient" and demonstrates fluency and consistency in incorporating math instruction across many content lessons and different writing skills

**Operationalization/Criteria:**

**Guidelines for Admission to Education:** *Not evaluated at admission to education*

**Guidelines for Admission to Student Teaching:**

1. Benchmark is the development of at least one lesson plan in the teacher's content area that demonstrates planning of relevant, complete literacy and math instruction.
2. Benchmark is a rating of "Developing" based on the criteria in the rubric.

**Evidence to Be Evaluated:** Lesson plans, possible videoclip of teaching a lesson, reflection if the lesson was taught

**Guidelines for Program Completion/Student Teaching:**

1. Required for program completion are ratings of "Proficient" on all dimensions.
2. Observe a variety of lessons in different content areas of responsibility for alignment with standard and effective teaching of mathematics, reading, and writing.
3. Observe the pedagogy/teaching strategies used to teach the skills.
4. Evaluate teacher reflections and/or K-12 student work samples to review effects of instruction.
5. Consistency = requires fluency/repetition, including documentation of competence in different content lessons.
6. The narrative for the Inventory should specify an example of a skill/observation that led to the rating, e.g.: *In her TWS on ecology, he taught students to develop and read food webs and to organize, disaggregate, and visually display data showing migration patterns of wildlife as a result of pollution of various bodies of water.*

**Evidence to Be Evaluated:** TWS, lesson plans, lesson plan book, unit plans, reflections and weekly logs, direct observation of teaching, videoclips of teaching, student work and assessment results

**Rationale:**

Cathcart, G., Pothier, Y.M., Vance, J.H., & Bezuk, N.S. (2010). *Learning mathematics in elementary and middle schools: A learner-centered approach*, 5th ed. Boston, MA: Allyn & Bacon.

Conley, M.W. (2008). *Content area literacy: Learners in context*. Boston, MA: Allyn & Bacon

McKenna, M., & Robinson, R.D. (2009). *Teaching through text: Reading and writing in the content areas*. Boston, MA: Allyn & Bacon

National Reading Panel Final Report. Available at [www.nationalreadingpanel.org/](http://www.nationalreadingpanel.org/).

*Reading for the 21 century: Adolescent literacy teaching and learning strategies*. Alliance for Excellent Education. Available at [www.all4ed.org/sitemap.html#Literacy](http://www.all4ed.org/sitemap.html#Literacy).

Vacca, R.T., & Vacca, J. L. (2010). *Content area reading: Literacy and learning across the curriculum*, 10th ed. Boston, MA: Allyn & Bacon.

Van de Walle, Kaarp, & Bay-Williams. (2009). *Elementary and middle school mathematics: Teaching developmentally*, 7th ed. Boston, MA: Allyn & Bacon.

Websites:

[mwp01.mwp.hawaii.edu/resources/TA%201-01%20workshop%20A.pdf](http://mwp01.mwp.hawaii.edu/resources/TA%201-01%20workshop%20A.pdf) (content literacy resources)

[www.engl.niu.edu/wac/journals.html](http://www.engl.niu.edu/wac/journals.html) (using journaling)

[www.howard.k12.md.us/langarts/Curriculum/](http://www.howard.k12.md.us/langarts/Curriculum/) (subject area reading strategies)

[www.middleweb.com/ReadWrkshp/JK34.html](http://www.middleweb.com/ReadWrkshp/JK34.html) (road map for content area reading)

[strategies.htm#SUBJECT%20AREA](http://strategies.htm#SUBJECT%20AREA) (reading across the curriculum strategies)

[www.pgcps.pg.k12.md.us/%7Eelc/readingacross.html](http://www.pgcps.pg.k12.md.us/%7Eelc/readingacross.html) (reading across the curriculum strategies)

[www.tea.state.tx.us/reading/practices/redbk4.pdf](http://www.tea.state.tx.us/reading/practices/redbk4.pdf) (research based content area reading instruction)

<http://www.litandlearn.lpb.org/>





paragraph I just read? or “What is the gist of the paragraph?”;

- to apply organizational frameworks as a way to understand and

- to participate in small-group discussions using study guides and postreading