

Teacher Quality Standard I

Teachers demonstrate mastery of and pedagogical expertise in the content they teach. The elementary teacher is an expert in literacy and mathematics and is knowledgeable in all other content that he or she teaches (e.g., science, social studies, arts, physical education, or world languages). The secondary teacher has knowledge of literacy and mathematics and is an expert in his or her content endorsement area(s).

The key to distinguishing the knowledge base of teaching rests at the intersection of content and pedagogy.

—L. S. Shulman

To teach all students according to today's standards, teachers need to understand subject matter deeply and flexibly so they can help students create useful cognitive maps, relate one idea to another, and address misconceptions. Teachers need to see how ideas connect across fields and to everyday life. This kind of understanding provides a foundation for pedagogical content knowledge that enables teachers to make ideas accessible to others. (Shulman, 1987)

Although Shulman's work dates back to the late 1980s, the importance of teacher content knowledge and pedagogical expertise has never been more important than it is now as teachers ensure students are college and career ready for the demands of the 21st century.

Element A

Teachers provide instruction that is aligned with the Colorado Academic Standards; their district's organized plan of instruction; and the individual needs of their students.

A teacher translates instructional outcomes into learning experiences for students through the design of instruction; it is here that a teacher's knowledge of the content, knowledge of his/her students, clarity of instructional outcomes, and knowledge of resources come together to result in a plan of action. Even in classrooms where students assume considerable responsibility for their learning, the teacher is in charge of organizing the environment, managing the learning process, and establishing the framework for assessment.

—Charlotte Danielson

Professional practices referenced under each element of the Rubric for Evaluating Colorado Teachers are cumulative. Therefore, for teachers to be proficient in providing instruction that is aligned with the Colorado Academic Standards, their district's plan of instruction and the needs of their students, they must implement lesson plans that provide for review of prior learning and are based on objectives appropriate for students. As a support in implementation of lesson plans, the teacher collaborates with other school staff to vertically and horizontally align, articulate, and deliver the approved curriculum.



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ACCOMPLISHED AND EXEMPLARY RATING LEVELS

The impact of a proficient implementation of the professional practices referenced in Element A will be students who perform at a level consistent with or above expectations by interacting with rigorous and challenging content. They will be able to discuss their strengths and next steps with teachers that support them in continuing to meet or exceed expectations.

PROFESSIONAL PRACTICES: STUDENTS:

- **Interact with the rigorous and challenging content.**
See also Standard III, Element E.
- **Perform at a level consistent with or above expectations.**
See also Standard III, Elements B and E.
- **Discuss strengths and next steps regarding their learning with their teacher(s).**
See also Standard III, Element B.

Classroom Examples

Elementary mathematics: Students are working on Colorado Academic Standard 1: Number Sense, Properties, and Operations, Grade Level Expectation 2—Different models and representations can be used to compare fractional parts.

Prior to implementing the lesson, the 4th-grade teacher collaborates with 3rd- and 5th-grade teachers to learn what misconceptions related to this skill students might have, so she can plan to address this in her instruction. The teacher then references the district’s curriculum to plan for a coherent series of lessons. *(Implements lesson plans based on: Colorado Academic Standards, District’s plan of instruction. Collaborates with other school staff to vertically and horizontally align, articulate, and deliver the approved curriculum.)*

The instructional objective for the lesson is: Students will be able to solve addition problems for fractions with like denominators and determine if the sum is greater than one. The teacher begins by reviewing the meanings of numerator, denominator, and greater than one. *(Uses lesson plans that reflect: Opportunities to review prior learning. Instructional objectives appropriate for students. Connections to specific learning objectives and approved curriculum.)* The teacher uses manipulatives (e.g., fraction strips) from the district curriculum kits to model two addition problems and shares her thinking for how she decides if the sum is a fraction greater than one. Working in partners, students solve three addition problems and explain in writing if the sum is a fraction greater than one. *(Implements lesson plans based on: Student needs. Students perform at a level consistent with or above expectations.)* The teacher circulates to check for understanding by asking students to explain their work. She provides feedback and supports students in identifying their next steps. *(Students discuss strengths and next steps for their learning with their teachers.)*



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Middle school science: Students are working on Colorado Academic Standard 1: Physical Science, Grade Level Expectation 1--Identify and calculate the direction and magnitude of forces that act on an object, and explain the results in the object's change of motion. *(Implements lesson plans based on: Colorado Academic Standards, District's plan of instruction.)*

The instructional objective for this 8th-grade lesson is: Students will calculate the direction and magnitude of forces that act on an object and explain the results in the object's change of motion. The teacher begins with a review of the process and steps students will follow for conducting experiments. *(Uses lesson plans that reflect: Opportunities to review prior learning. Instructional objectives appropriate for students.)* To help all students access the instructions for the experiment, the teacher includes picture representations of the various steps of the process. He also provides sentence frames for ELL students to use. *(Implements lesson plans based on: Student needs.)* Working in groups of four, students conduct experiments on how objects of different weights impact the motion of a toy car. *(Students perform at a level consistent with or above expectations.)* Following each group's completion of its experiments, the teacher meets with students to discuss the results. Students reflect on their strengths in working cooperatively and in conducting the experiments according to instructions. *(Students discuss strengths and next steps regarding their learning with their teachers.)*

High school reading, writing, and communicating: Students are working on Colorado Academic Standard 2: Reading for All Purposes, Grade Level Expectation 1 – Complex literary texts require critical reading approaches to effectively interpret and evaluate meaning.

The learning objective is: Students will analyze characters in a literary text in order to explain their conflicting motivations. Students are reading the book *Crime and Punishment*, which is on the district's approved list of high school texts. *(Implements lesson plans based on: Colorado Academic Standards, District's plan of instruction.)* The teacher begins this 11th-grade lesson with a review of the character Raskolnikov and provides quotes from previously read chapters that demonstrate his conflicting motivations. *(Uses lesson plans that reflect: Opportunities to review prior learning, Instructional objectives appropriate for students. Connections to specific learning objectives and approved curriculum.)* Students then work in groups of four to brainstorm other characters in the novel that exhibit conflicting motivations similar to those that Raskolnikov exhibited. Each group selects a character to analyze based on quotes from the text. Students are told to use their analysis to explain how the character advanced the plot of the novel. As they work, the teacher circulates and asks students to evaluate their progress as a group and individually. Students are able to identify what is working well and what they still need to accomplish to complete their analysis. *(Students interact with the rigorous and challenging content. Performs at a level consistent with or above expectations. Discuss strengths and next steps regarding their learning with their teachers.)*



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Planning/Coaching Questions

- How will I identify which standards to teach (e.g., complexity, highly-tested, most challenging for students to master, district plan for instruction) in this lesson or unit?
- How will I create learning objectives appropriate for my students aligned to the unit of study and standards?
- How will I plan for and implement review of previously learned concepts or skills in my lessons?
- How will I ensure the instruction and student activities align to the learning objective(s) and criteria for student mastery?
- How will I decide what is appropriate to differentiate for this lesson?
- How will I plan to accommodate students' individual interests and needs?
- How do I collaborate with school staff to ensure my planning and instruction support the needs of all students and align with the approved curriculum?
- How will I create opportunities for students to reflect on their strengths and next steps regarding their learning?



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