

COMMON CORE VS. PREVIOUS STANDARDS MATH

Understanding how the new standards will improve students' math skills:

Math Common Core State Standards require greater focus by teachers and deeper knowledge by students than many previous state standards. Students will need to accurately calculate equations, understand concepts not just memorize answers, and accurately select the best mathematical concept or equation to solve real-world problems, while demonstrating why the method or equation they selected is accurate.

The new standards make sure students are learning and absorbing the critical information they need to succeed at higher levels.

Elementary School Example

Previous Math Question

Each shirt costs \$4. How much do 3 shirts cost?

This question can be answered by a “count-all” strategy, in which you don’t need to know your multiplication tables by memory to get the right answer.

CCSS Math Question

Each shirt has 6 buttons. How many buttons are needed to make 7 shirts?

This question requires automatic recall of multiplication tables to get at the right answer.

Middle School Example

Previous Math Question

Donna buys 40 apples at 35 cents each. She eats 2 apples and sells the rest for 45 cents each. How much money does she make?

This question only requires use of simple arithmetic.

CCSS Math Question

Donna buys some apples at 35 cents each. She eats 2 apples and sells the rest for 45 cents each. She makes \$4.40. How many apples did she buy?

This question requires use of an algebraic equation.

Previous Math Question

A bird flew 20 miles in 100 minutes at constant speed. At that speed, how long would it take the bird to fly 6 miles?

This question requires one calculation, using a formula.

CCSS Math Question

A bird flew 20 miles in 100 minutes at constant speed. At that speed: (a) how long would it take the bird to fly 6 miles? (b) How far would the bird fly in 15 minutes? (c) How fast is the bird flying in miles per hour? (d) What is the bird's pace in minutes per mile?

This question requires a series of calculations and reasoning. It measures if students understand why the formula works.

COMMON CORE VS. PREVIOUS STANDARDS ENGLISH LANGUAGE ARTS

Understanding how the new standards will improve reading comprehension for students:

The Common Core State Standards for English Language Arts are designed to ensure students fully understand what they read, and can effectively talk and write about it. While the old standards focused on simply expecting students to recite facts learned through reading textbook passages, the new standards expect students to read books and textbook passages that are more challenging than what was previously read in each grade level – including reading more original writings whenever possible.

2nd and 3rd Grade Example using American Literature – *Charlotte’s Web*

One of the ways that teachers teach young children how to read is by reading aloud to them. An example of a book that would be read aloud to second or third graders is *Charlotte’s Web*. It’s the story of a little girl named Fern, who loves a piglet named Wilbur, and his friend Charlotte, who is a spider who lives in the barn with Wilbur. Reading aloud is not a new way to teach reading. What is new is that the discussion that follows is more in depth, and more rigorous. Below are some questions that the teacher may ask after she finishes a chapter or the book:

***Charlotte’s Web*, by E. B. White**

Old Expectation

Who is telling the story in *Charlotte’s Web*?

How does Wilbur feel towards Charlotte at the end of the story? How do you know?

The old expectation requires students to state that the narrator is telling the story, and give one example to show that Wilbur loves Charlotte.

In order to be successful in this task, the student only has to give an example that shows that Wilbur loves Charlotte. He doesn’t have to understand why Wilbur loves Charlotte. This example could be as simple as Wilbur telling Charlotte that he loves her.

New Expectation

What is your point of view about Wilbur?

How is it different from Fern’s point of view about Wilbur?

How is it different from the narrator’s point of view?

The new expectation requires students to understand and explain that characters see the “world” differently. The reader learns about Wilbur and Charlotte and Fern from the narrator, but also learns about each character by what they say to each other, and how they act in certain situations.

In order to be successful in this task, the student has to have listened to the teacher and engaged in the rich classroom discussion that occurs after each chapter has been read. He has to think about why Fern sees Wilbur in a different way than the Narrator does, and explain that.